

Volume 28

April 21, 2007
to
September 25, 2007

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*Leo Enright
Observing Log 2007, Apr. 21 - 2007, Sept. 25*

108 Pages

3 SUBJECT NOTEBOOK

CAHIER 3 SUJETS

• **Ruled Paper / Papier ligné**

• **20.3 cm x 26.7 cm**

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2007, Aug 12: Active Meteor Showers

I Perseids (7/17-8/24) ZHR 100
59 k/s

II S. i. Aquarids (7/25-8/15)^{8/4} ZHR 2
34 k/s

III N. S. Aquarids (7/15-8/25)^{8/9} ZHR 4
42 k/s

IV κ Cygnids ^{8/18} ZHR 3
ad.: 19⁰⁴ (8/3-8/25)
+59° 25 k/s

V. N. i. Aquarids ^{8/20} ZHR 3
(8/11-8/31)
31 k/s

2007

July 13:

- since June 8th meeting: 9hr

17 solar obs. in white light
and 17 in H α

on June 9, 10, 12: R.S.N- 24, 24, 13^h

on June 13, 14, 15, 17, 21, 22, 23, 24: 0

on June 25, 26, 30, July 2, 3, 12:
11, 12, 14, 17, 12, 18.

Other entries: 20

June 9-10: Shadow From Jupiter!

Observing Log

Code:
Year Day Date Time

Sky Conditions:
Place S=Seeing T=Transparency I=Instrument(s)

Time:

UT = Universal Time

Places:

OO = Oso Observatory
nd = north deck
sd = south deck
sh = shoreline of lake
SS = solar station
t = table at solar station
in = indoors
r = roof of house
ice = ice on lake
y = yard
ya = laneway by backyard
FL = Florida pl = pool

Instruments:

C-14 = Celestron 14 - 35.5cm SCT

C-8 = Celestron 8 - 20cm SCT

Ast = Astroscan 2001 - 10.5cm RFT

12 1/2" = Denise's 32cm Meade Dobsonian

20x100b = Celestron 20x100 binoculars

11x80b = 11x80 binoculars

9x63b = 9x63 binoculars

7x35b = 7x35 binoculars

18x50ISb = Canon 18x50 IMAGE STABILIZED binoculars

P.S.T. = Coronado Personal Solar Telescope

32 = 32mm ocular

32-2 = 32mm 2" ocular

K = Kellner

O = Orthoscopic

Ko = König

WA = Wide Angle

P = Plössl

ph = photography

b/b = piggyback

O/a = off axis

Ba = Barlow

A.P.F. = Astrophysics Solar Filter

T.O.F. = Thousand Oaks Solar Filter

Objects:

PN = Planetary Nebula

GC = Globular Cluster

OC = Open Cluster

SG = Spiral Galaxy

LPV = Long Period Variable

DS = Double Star

Atlases:

U = Uranometria 2000.0

U210 = Uranometria 2000.0 Chart 210

AAVSA = AAUSO Variable Star Atlas

Cam = Cambridge Star Atlas (2000.0)

MSA = Millennium Star Atlas

UDSA = Uranometria 2000.0 Deep Sky Atlas

UDSA210 = Uranometria 2000.0 Deep Sky Atlas

Chart 210.

Site Locations:
Time = 2:00 PM (Instrument)

Year Day Date Time
Cook:

Places:
Time: NT = Universal Time

09
05
RSNO

Apr. 21
19:00-19:05 UT

09
05
RSNO

Apr. 22
18:15-18:20 UT

FL = Florida
Lansway
Lansway

Instrument:
C-14 = Celestron 14" - 35.5cm SCT
C-8 = Celestron 8" - 20cm SCT

Ast = Astromaster 200 - 50.8cm RFT
12.5" = Bresser 32cm Maksutov

20x100 = Celestron 20x100 binoculars
11x80 = 11x80 binoculars

9x35 = 9x35 binoculars
7x35 = 7x35 binoculars

18x25 = Canon 18x25 image stabilized binoculars
P.S.T. = Coronado personal Solar Telescope

35 = 35mm ocular
32.5 = 32.5mm 2" ocular

K = Kellner
O = Orthoscopic
K = Kellner

WA = Wide Angle
F = Focal
p/p = photography

p/p = prisms
o/a = off axis
Bar = Barlow

A.F. = Astrophysics Solar Filter
T.O.F. = Thousand Oaks Solar Filter

Objects:
P1 = Pleiades
GC = Globular Cluster
OC = Open Cluster
S = Spiral Galaxy
L = Long Period Variable
D2 = Double Star

Atlas:
U = Uranometria 2000
N10 = Uranometria 2000 Chart 10
AAVSO = AAVSO Variable Star Atlas
Cam = Cambridge Star Atlas (2000)
M5A = Millennium Star Atlas
N2A = Uranometria 2000 Deep Sky Atlas
N2A20 = Uranometria 2000 Deep Sky Atlas Chart 210

2007 Sa. Apr. 21 19:00-19:05 UT(?) Isabel Turner Library, Kingston 5" reflector
sun Og Os RSN O

During Astronomy Day activities in Kingston, I observed the sun with at least one telescope, one belonging to Hank Bartlett and probably one other belonging to Norm Welbank.

Sa Apr. 21 19:20-19:25 UT Isabel Turner Library, Kingston PST, 20, 15.5
sun in Hx - no obvious prominences, but hints of small ones perhaps, at the southern edge of the disk.

With the larger Coronado Hx telescope that had been brought to the Astronomy Day Activities by Dr. Terry Bridges, I saw an arching, almost circular prominence near the 3 o'clock position on the rim of the solar disk.

Sa. Su. Apr. 21-22 02:55-03:10 UT nd S7T7 (cm) ne
With Venus about 5° above the NW horizon and the bright crescent moon about 20° above the WNW horizon, I observed after coming home from Astronomy Day activities in Kingston and after eating at Boston Pizza. I saw the stars of Spring in the southern sky and two meteors that were probably Leonards in the NE.

Su. Apr. 22 18:15-18:20 UT t C-8, 32, 28, 20, 15.5
sun. Og Os RSN O

Su. Apr. 22 18:25-18:30 UT nd PST: 20, 28, 20E, 15.5
sun in Hx - only slight hints of small prominences on the southern rim of the sun.

S.-M. Apr. 22-23 03:35-04:30 UT nd +y S7T7 (cm) ne; A 18x5015b
ne: stars of Spring; crescent moon about 6 days old well up in the NW; Venus had been seen earlier in

2007 So. Apr. 21 19:00-19:20 UT (3) Isabel Turner-Libard, Kingston
 2nd Victoria
 During Astronomy Day activities in Kingston, I observed the
 sun with at least one telescope, one belonging to Hank
 Bartlett and probably one other belonging to Alan Wallart.

So. Apr. 21 19:20-19:25 UT Isabel Turner-Libard, Kingston
 sun in HR - no obvious prominences but hints of small
 Apr. 29
 RSN19 17:55-18:00 UT
 RSN0 17:15-17:20 UT

been brought to the Astronomy Day activities by
 Mr. Terry Bridges, I saw an arching, almost
 circular prominence near the 3 o'clock position
 on the rim of the solar disk.

So. Apr. 21-22 02:22-03:00 UT 2177 (CML)
 with Venus about 2° above the NW horizon and the
 bright crescent moon about 30° above the NW
 horizon, I observed after coming home from Astronomy
 Day activities in Kingston and after exiting at Boston
 Plaza. I saw the stars of Spina in the southern sky
 and two meteors that were probably Leonids in the
 NE.

So. Apr. 22 18:12-18:30 UT
 sun. O2 RSN10
 C-8, 32, 38, 50, 122

So. Apr. 22 18:22-18:30 UT
 sun in HR - only slight hints of small prominences
 on the southern rim of the sun.

So. M. Apr. 22-23 03:32-04:30 UT 2177 (CML) V1
 NE: stars of Spina; crescent moon about 6 days old
 well up in the NE; Venus had been seen earlier in
 18:20:20

2007

NW; Saturn high in the W.; a bright glow to the right of the moon - which I thought might have been auroral or possibly light reflected on a cloud. I also saw 2 meteors, one a Lyrid and one not a Lyrid.

see
next
page

M.-T. Apr. 30-May 1 02:15-02:20 UT nd STT5 (gml) ne
Venus about 20° above the NW horizon, and extremely bright; Almost Full Moon in the SSE and about 2° down from Spica; Saturn well up in the W.

18x5015b: M65, M66, M13, M92, area of M104 or thereabouts, M51, area of α Librae and β Librae

Tu. Apr. 24 17:15-17:20 UT t c-8, 32, 28, 29, 15.5
Sun O_g O_s RSN0 T.O.F.

Tu. Apr. 24 17:25-17:30 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - one definite curling prominence on the N. edge, and hints of small prominences elsewhere.

T.-W. Apr. 24-25 02:45-02:55 UT nd S?T5 (gml) ne
- Venus about 10° above the NW horizon, Regulus, and Saturn very high in the WSW with the First Quarter Moon about 4° to the right of Saturn; Vega about 10° above the E horizon; stars of spring in the S. and SW.

Su. April 29 17:55-18:00 UT t c-8, 32, 28, 29, 15.5
Sun I_g I_s RSN19 T.O.F.

Su. Apr. 29 18:05-18:10 UT nd
sun in H α - hints of small prominences in the South Pole area.

MJ; Saturn high in the W. a bright glow to the right of the moon which I thought might have been unusual or possibly light reflected on a cloud. I also saw 2 meteors, one a lumin and one not a Lumin.

M-T. Apr. 30 - May 1 02:15 - 03:50 UT (GMT) MS
 Venus about 30° above the NW horizon and
 Extremely bright; almost full in the SE
 and about 30° down from the NW horizon
 up in the W.

see
 rest
 page

MS1, one of a pair and Blinn
 MS2, MS3, MS4, one of MS5 - faintest

Tu. Apr. 24 17:15 - 17:30 UT
 MS 02 of MS10
 T.O.F. 0-8-35-38-39-42

Tu. Apr. 24 17:32 - 17:30 UT
 MS in H & - one definite ending prominence
 on the N. edge, and hints of small prominences elsewhere.
 T.O.F. 0-8-35-38-39-42

Tu. Apr. 24 17:32 - 17:30 UT (GMT) MS
 Venus about 10° above the NW horizon, rather
 and Saturn very high in the WSW with the
 First Quarter Moon about 40° to the right
 of Saturn; Vega about 10° above the E
 horizon; stars of spring in the S and SW.

Su. April 29 17:22 - 18:00 UT
 MS 19 of MS10
 T.O.F. 0-8-35-38-39-42

Su. Apr. 29 18:02 - 18:10 UT
 MS in H & - hints of small prominences in the SW for now

2007 M. Apr. 30 18:30-18:35 UT t
Sun lg 7s RSN17

C-8, 32, 28, 20, 15.5
T.O.F

M. Apr. 30 18:40-18:45 UT nd

P.S.T.; 20, 28, 20E/15.5

sun in Hx - a prominence at about 4 o'clock position
and some hints of prominences in the southern rim,
and white faculae near the sunspot group, and one
or two possible dark filaments in the area to
the left, of the in the field, from the sunspot group.

[See bracketed entry on previous page.]

T.-W. May 1-2 03:25-03:30 UT nd S? T5 (fml) ne

- brilliant Venus about 5° above the NW
horizon, Vega in the E sky, the handle of the
Big Dipper near the zenith, Regulus and Saturn
well up in the W., the Full Moon low in the SE,
Spica in the SSE with the Full Moon to the
left and down about 14° from Spica.

W. May 2 15:30-15:35 UT t

sun lg 9s RSN 19

C-8, 32, 28, 20, 15.5

T.O.F.

W. May 2 15:35-15:40 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in Hx - hints of prominences on the southern
rim of the solar disk.

Th. F. May 3-4 02:05-02:40 UT y S8 T5 (gml; some) ne; cloud 18X5015b
ne: stars of spring in the S.; Saturn well up
in the W.; Venus about 15° above the NW
horizon.

18X5015b: area near T Cor Bor, but the star
not seen for sure, M13, M92, M65, M66,
M44, M67, Saturn, R Leonis and area near it, 'Head
of Hydra' area.

9

G-8, 35, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

P.S.T. 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area

19
95
REN19

May 3
17:25-17:30UT

M. Apr. 30 18:30-18:35 UT
Sun 19 18:35-18:40 UT

M. Apr. 30 18:40-18:45 UT
Sun 19 18:45-18:50 UT

sun in the - prominence at about 17:30 UT
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area
and some bits of prominence in the southern area

19
95
REN19

May 4
18:05-18:10UT

10

G-8, 35, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

P.S.T. 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

left and down about 1/2 from Spica.
Spica in the SSE with the full Moon to the
well up in the W. the full Moon low in the SE,
Bip Dipper near the zenith, Regulus and Saturn
horizon, Vega in the E sky, the handle of the
- brilliant Venus about 2° above the NW
T.W. May 5 03:32-03:35 UT
Sun 19 03:35-03:40 UT

19
95
REN20

May 5
17:00-17:05UT

T.W. May 5 03:32-03:35 UT
Sun 19 03:35-03:40 UT

left and down about 1/2 from Spica.
Spica in the SSE with the full Moon to the
well up in the W. the full Moon low in the SE,
Bip Dipper near the zenith, Regulus and Saturn
horizon, Vega in the E sky, the handle of the
- brilliant Venus about 2° above the NW
T.W. May 5 03:32-03:35 UT
Sun 19 03:35-03:40 UT

W. May 5 17:30-17:35 UT
Sun 19 17:35-17:40 UT

P.S.T. 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

P.S.T. 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

at 18:20 UT: also near T or Bar but the star
not seen for sure, M13, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100

W. May 5 17:30-17:35 UT
Sun 19 17:35-17:40 UT

T.W. May 5 03:32-03:35 UT
Sun 19 03:35-03:40 UT

at 18:20 UT: also near T or Bar but the star
not seen for sure, M13, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100

at 18:20 UT: also near T or Bar but the star
not seen for sure, M13, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100

2007 W. May 3 17:25-17:30 UT t C-8, 32, 28, 20, 15.5
sun lg 9s RSN 19

W. May 3 17:35-17:40 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx - hints of prominences along the
southern limb

F. May 4 18:05-18:10 UT t C-8, 32, 28, 20, 15.5
Sun lg 9s RSN 19

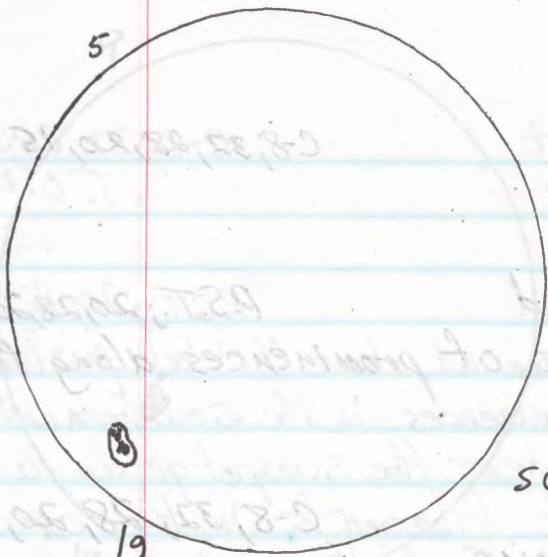
F. May 4 18:15-18:20 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx - hints of prominences near the 4 to 5
o'clock position.

F.-S. May 4-5 03:40-04:00 UT nd 55TS (gml) ne
- Venus very low in the NNW; Big Dipper near
the zenith; Saturn in the W; brightness from
the gibbous moon that had risen in the SE; Vega
in the E; a possible glow in the N that may possibly
have been auroral.

Sa. May 5 17:00-17:05 UT t C-8, 32, 28, 20, 15.5
sun lg 10s RSN 20 T.O.F.

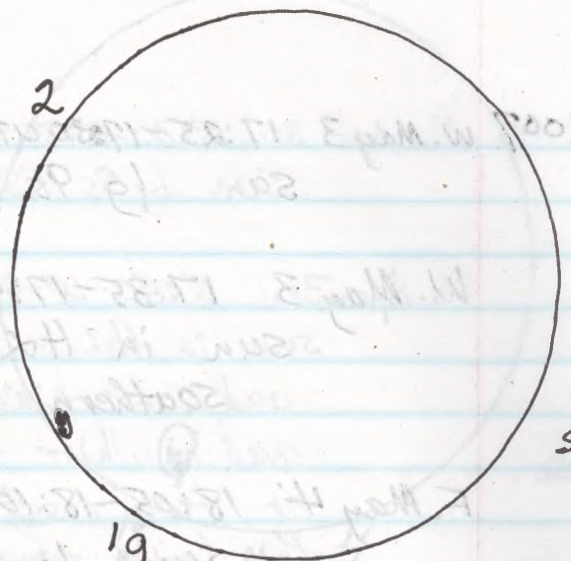
Sa. May 5 17:05-17:10 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx: hints of prominences along the southern
rim of the solar disk.

S.-S. May 5-6 03:20-04:15 UT y SPT 9.5 (!) ne; 18X50 15b
ne: stars of spring; Venus brilliant and very low in the
NNW; Saturn well up in the W; Jupiter in the SE at the
end of the session, 2 bright meteors.
18X50 15b: M10, M12, M5, M13, M92, M57, M51, M101, areas
of Virgo, areas of Corvus, M65, M66, M81, M82,



19
55
RSN15

May 6
17:25-17:30 UT



19
25
RSN1A

May 7

5
G-8 35 28 20 12.2
1.0 f.

2
May 2 17:00-17:02 NT
sun 19 102 RSN 20

2
May 2 17:08-17:10 UT
sun in Hor. lots of prominence along the southern rim of the solar disk.

2-2 May 2 - 03:20 - 04:15 UT
no: stars of spring; Venus brilliant and very low in the NW; Saturn well up in the W; Jupiter in the SE at the end of the season, 2 bright meteors.
Rxn 20: M10, M12, M13, M15, M17, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, 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2007

May 8 Kemble's Cascade, Kemble 2, Saturn, M44, M67, R Leonis and the area near it.

Su. May 6¹ 17:25-17:30 UT t c-8, 32, 28, 20, 15.5
sun lg 5s RSN15 T.O.F.

Su. May 6 17:30-17:35 UT nd. P.S.T.; 20, 28, 20E, 15.5
sun in H α - hints of prominences on the southern limb

Su.-M. May 6-7 02:55-04:00 UT y SPT9 ne; 18X501sb
ne: stars of spring; Venus brilliant and low in the NW early in the session; Jupiter low in the SE near the end of the session
18X501sb: M5, M13, M92, M57, areas of Virgo and Leo, M65, M66, M44, M67, R Leonis and nearby area, Saturn, IC4665, Taurus Poutrowski and area, Barnard's Star.

M. May 17 16:55-17:00 UT t c-8, 32, 28, 20, 15.5
sun lg 2s RSN12 T.O.F.

M. May 17 17:05-17:10 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - only slight hints of prominences in various places.

M.-T. May 7-8 02:55-03:05 UT nd SPT3 (clouds) ne; 18X501sb
ne: Amid the scattered clouds I saw some stars in the NW at first and later near the zenith and in the E. Venus at first was seen near the NW horizon and later Saturn well up in the W.
18X501sb: I searched near the star β Draconis for Comet C/2007 E2 (Lovejoy) since its ephemeris stated it should be there at mag. 8.4, but I did not knowingly see it.

2007 Tu. May 8 17:20-17:25 UT to
sun @ 05 RSN0

C8, 32
T.O.F.

Tu. May 8 17:25-17:30 UT ad
sun in H_α - only some hints of prominences. P.S.T.; 20

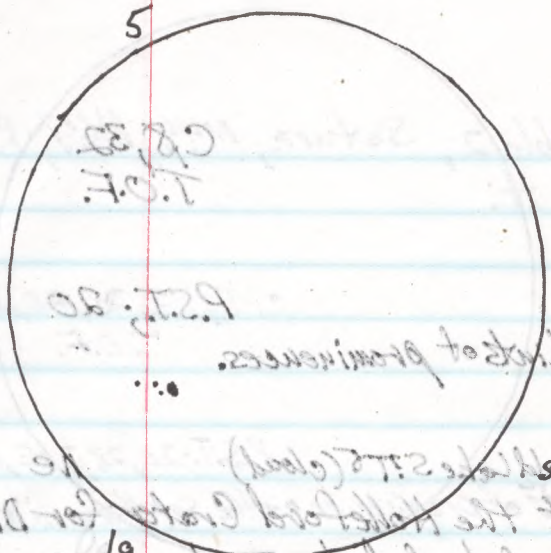
W.-Th. May 9-10 01:40-02:20 UT Gould Lake S7T5 (cloud) ne
After leading a tour of the Halletford Crater for Dieter Brueckner's group of high-school students, I drove to Gould Lake to join them for snack and short observing session. Clouds were a problem for the observing. However, the students tried to observe with about 5 "Stargazer Steve" reflectors. I observed naked-eye Venus and some of the stars of spring and could point out Saturn, Regulus, γ Leonis, M44, Mizar, and the position of R Leonis.

Th. May 10 18:35-18:40 UT to
sun 19 55 RSN15 C8, 32, 28, 20, 15.5
T.O.F.

Tu. May 10 18:40-18:45 UT ad
sun in H_α - only hints of prominences P.S.T.; 20, 28, 20E, 15.5

Th.-F. May 10-11 03:00-03:30 UT y 56T6 (haze) ne; 18X50isb
ne: stars of spring; Saturn in the W.
18X50isb: M104 and area, R Cor Bor and area, area of T Cor Bor, Alcor and Mizar and area, M44, R Leonis and area, Saturn

F.-S. May 11-12 06:00-06:10 UT ad S7T9.5! ne; 18X50isb
ne: After returning home following the Kingston Centre meeting and watching tv for a while, I observed briefly seeing the late spring and early summer stars.



C.P. 30
T.O.F.

P.T. 20

sun in the - only some hints of prominence.

W. T. May 10 01:40-03:30 UT 217° (cloud)

After leading a tour of the Hallett and Cresta for Dick
Bryce's group of high school students, I could
take to join them for a walk at 17:25 UT.

19
55
REN 15

May 13

Clouds were a problem for the evening. However, the stars
tried to observe with about 2" Starator stars
I observed red-eye Venus and some of
the stars of spring and could point out Saturn,
Regulus, Y Leonis, Mizar, and the position of
R Leonis.

C.P. 30
T.O.F.

P.T. 20, 20, 20, 20

sun in the - only hints of prominence

Tr. F. May 10-11 03:00-03:30 UT 217° (base)
re: stars of spring; Saturn in the W.
18x50: Mizar and over, Mizar and over, Mizar
T. Cor Bar; Mizar and over, Mizar
R Leonis and over, Saturn

re: 18x50

217.2!

F-2 May 11-15 02:00-02:10 UT 217.2!

re: After returning home following the Kingston
center meeting and watching tv for a while, I
observed briefly seeing the late spring and early
summer stars.

2007 To May 8 17:20-17:25 UT #
sun @ 02 RAN

To May 8 17:25-17:30 UT #
sun in the - only some hints of prominence.

W. T. May 10 01:40-03:30 UT 217° (cloud)

Tr. May 10 18:35-18:40 UT #
sun @ 02 RAN

To May 10 18:40-18:45 UT #
sun in the - only hints of prominence

Tr. F. May 10-11 03:00-03:30 UT 217° (base)

F-2 May 11-15 02:00-02:10 UT 217.2!

Summer stars.

2007

18x5015b: NGC 7789 in Cassiopeia, M10 and M12 in Ophiuchus.

Su. May 13 17:20-17:25 UT t.

Sun 19 55 RSN 15

C-8, 32, 28, 20, 15.5
T.O.F.

Su. May 13 17:25-17:30 UT nd

Sun in Hx. some hints of prominences

P.S.T.; 20, 28, 20E, 15.5

S.M. May 13-14 01:45-05:00 UT 00 STT 9-9.5

ne; 20x100b; C-14, 19

ne: stars of spring and early summer; Venus in the NW in about the first half of the session; Jupiter in the SE in the latter part of the session, a bright meteor in the S.

Comet Lovejoy

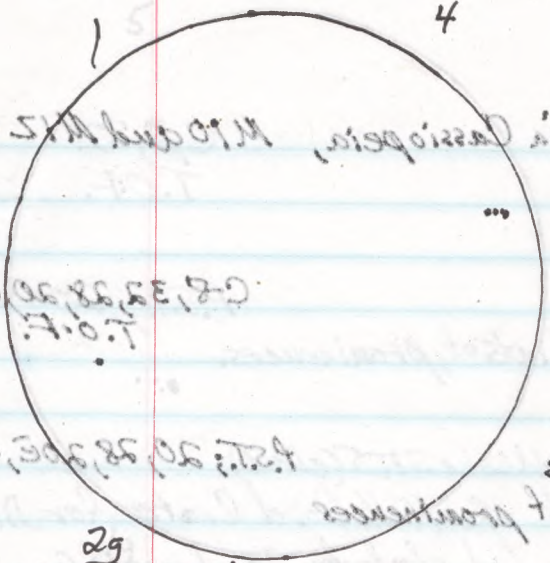
20x100b: M5, T Cor Bor, R Cor Bor, M13, M92, Comet C/2007 E2 (Lovejoy) in Draco at about mag. 9.0 at R.A.: $16^h 26^m 15s$; Dec.: $+59^{\circ} 27' 1''$ - fainter and smaller than I expected it to be. It was about 1° E. of AT Draconis, a bit W. of NGC 6176, and about 2° SSE of η Draconis (See U 51.), also M57; I also inspected the area E of Regulus with a possible view to observing an occultation in that area later in the week. I observed

L 82
L 196

2 Levy List objects: L 82 (NGC 5634) a small globular cluster in Virgo which seemed to be overpowered by a nearby star and L 196 (NGC 5694) a globular known as Tombaugh's Cluster in Hydra, which was seen faintly. (See U 287 and U 332.) Jupiter and 4 moons were observed, as well as M4, Barnard's Star and its area, and IC 4665.

C-14, 19: In the early part of the session, I observed Venus at, or near, dichotomy, and Saturn and four of its many moons.

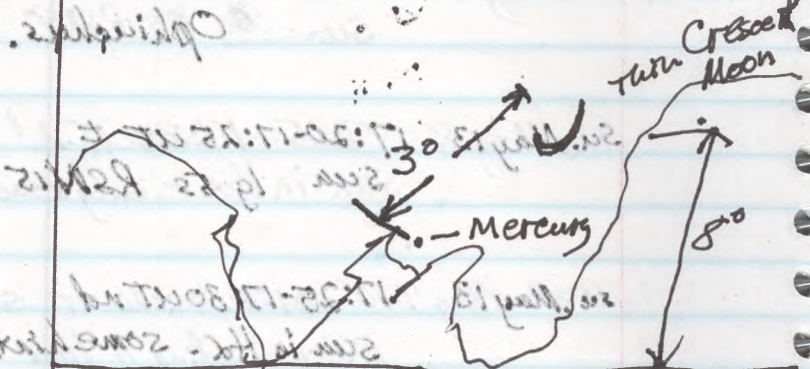
Venus at dichotomy



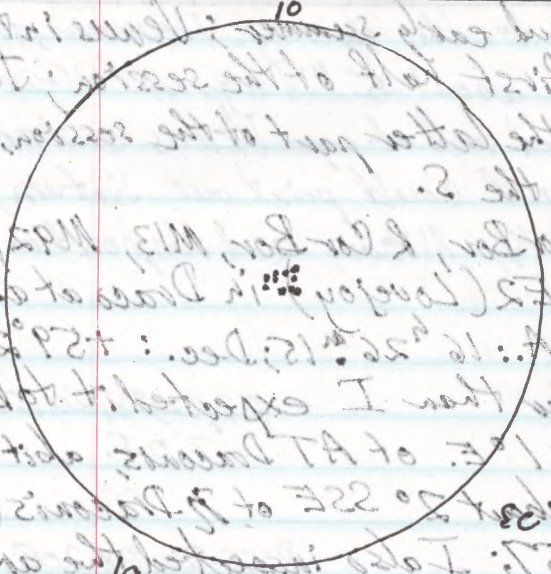
29
 55
 May 14
 RSN 25

Venus

Moon-Mercury Conjunction
 (Listed as occurring at 0h UT)
 (0.5 hr earlier)



2007, May 18 01:30 UT: 30 hour old Crescent
 Moon and Mercury 3° away. M:2



19
 105
 May 18
 RSN 20 17:40-17:45 UT

Coret Loojoo

L 85
L 105

Venus
at distance

2007 M. May 14 17:00-17:05 UT t
Sun 29 50 RSN 25

C-8, 32, 28, 20, 15.5
T. O.F.

M. May 14 17:05-17:10 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in H α - numerous "hints of prominences" around the disk

Th.-F. May 17-18 01:30-01:40 UT nd twl ne; 18x50isb

ne: In twilight I observed the beautiful very slender crescent moon 30 hours old about 8° above the NW horizon with Mercury about 3° to the left and down from it. Mercury was seen at first only with difficulty and after being seen in the binoculars first, but later I had no doubt that I saw Mercury. Vega was seen in the E, the Big Dipper near the zenith, Arcturus and Spica in the S, and Regulus and Saturn high in the W. Venus was very brilliant in the WNW. (See diagram.)

30-hour Moon
Mercury

18x50isb: Very slim crescent moon, Mercury about 3° from the moon. Mercury was seen first in binoculars in the fairly bright twilight.

05:10-05:40 UT nd 57-8T9 ne; 18x50isb

ne: stars of late spring and early summer.

18x50isb: M65, M66, areas of Cygnus, NGC 7789, Kemble's Cascade, M27, β Cygni.

F. May 18 17:40-17:45 UT t
Sun 19 105 RSN 20

C-8, 32, 28, 20, 15.5
T. O.F.

F. May 18 17:45-17:50 UT nd

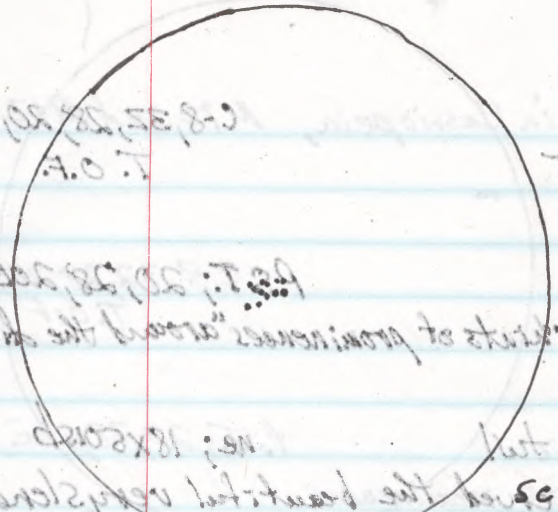
P.S.T.; 20, 28, 20E, 15.5

sun in H α - one definite short sharp prominence at the bottom of the solar disk and perhaps other "hints" of prominences

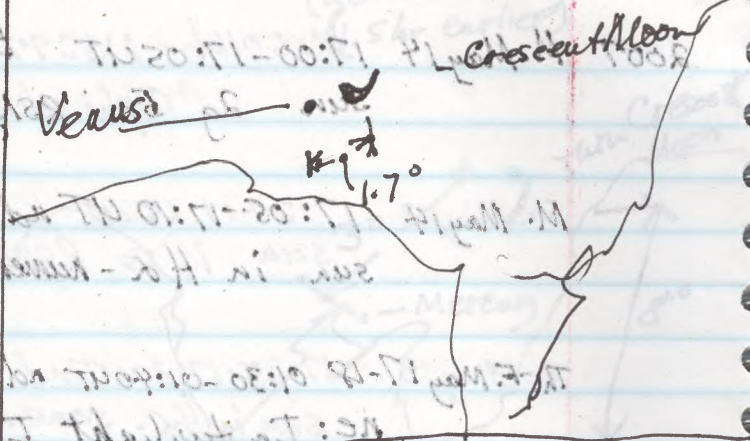
F.-S. May 18-19 02:00-05:15 UT 00 57T9

ne; 20x100b; C-14, 32.

ne: stars of spring and early summer, Venus brilliant in the



Pollux → . . ← Altair Castor



2007 May 19-20 ^{NW} 01:55 UT Spectacular
Moon-Venus Conjunction

Very bright in the NW. (See diagram.)
 Jupiter and Saturn high in the W. Venus was
 near the zenith. Antares and Arcturus in the E, and
 Mercury. Venus was seen in the E. the Big Dipper
 first, but later I had no doubt that I saw
 difficultly due to being seen in the direction
 from it. Mercury was seen at first only with
 30-40x magnification

Very slim crescent Moon, Mercury about 3°
 from the Moon. Mercury was seen first in
 procedure in the fairly bright twilight.
 02:10-02:40 UT in 25x75 mm; 8x250 mm
 MS: stars of late spring and early summer.
 19x200 mm: M42, M43, area of Cygnus NGC 2718

MS: stars of spring and early summer, Venus in
 constellation
 04:35
 MS: 20x75 mm; 8x250 mm
 of the star field and perhaps other lists of prominence
 sun in the - see details about prominences of the doctor
 17:45-17:50 UT and
 17:55-17:58 UT
 seen in 102 KSN 20

17:45-17:50 UT and
 17:55-17:58 UT
 seen in 102 KSN 20
 05:00-05:15 UT 20 2779
 MS: 20x75 mm; 8x250 mm
 MS: 20x75 mm; 8x250 mm
 08:35, 08:45, 12:2

2007

W. in the early part of the session, Crescent moon which set at about 03:28UT; Jupiter which rose at about 03:30UT, one bright meteor, an extremely brilliant flash from a "polar orbit" satellite.

20x100b: area of μ , ϵ ; and κ Leonis in order to prepare possibly for an asteroidal occultation which was predicted for the coming week, M10, M12, Levy 220 (NGC 6910) an open cluster near γ Cygni; Levy 6 (NGC 6229) a small globular cluster in Hercules forming a small almost-isosceles triangle with two nearby stars (U. 80); tried to observe Levy 334 and Levy 271 but found them difficult. Both are globular clusters. The first one may have been fainter than expected and the second one may have been difficult to see because of the proximity of Jupiter which was very bright.

Levy 220

Levy 6

NGC 6284

M9

NGC 6284, a globular cluster in Oph about 2° almost due south of Levy 271 (NGC 6342), was seen faintly; M9, Jupiter and 3 of its moons.

C-14, 32: In the early part of the observing session, I observed Venus, near dichotomy in its phase, and Saturn and 3 of its moons.

Sa. May 19 17:15-17:20UT t
Sun 1g 11s RSN 21

C-8, 32, 28, 20, 15.5

Sa. May 19 17:25-17:30UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in H α - one definite prominence at the bottom of the disk and other "hints of prominences elsewhere.

Sa.-Su. May 19-20 01:50-01:55UT nd twl ne

During twilight I observed the spectacular conjunction of the Crescent Moon and Venus, listed as being 1.7° apart and at 01hr. UT. (See diagram.) They were about 25° above the NW horizon and about 8° down from Castor and Pollux. The moon was about $3\frac{1}{2}$ days old.

Moon-Venus Conjunction!

W. in the early part of the session, Crescent moon which set
 at about 03:28NT; Jupiter which rose at about 03:30NT
 one bright meteor, an extremely brilliant flash from a
 "polar orbit" satellite.
 20x100: area of J, and K Lenses in order to
 prepare possibly for an asteroidal occultation which
 was predicted for the evening week, M10, M12, Levy 520
 (M10 610) an open cluster near Y. (M10 610) very
 (M10 610) a small globular cluster in the
 (M10 610) a small globular cluster in the
 (M10 610) a small globular cluster in the

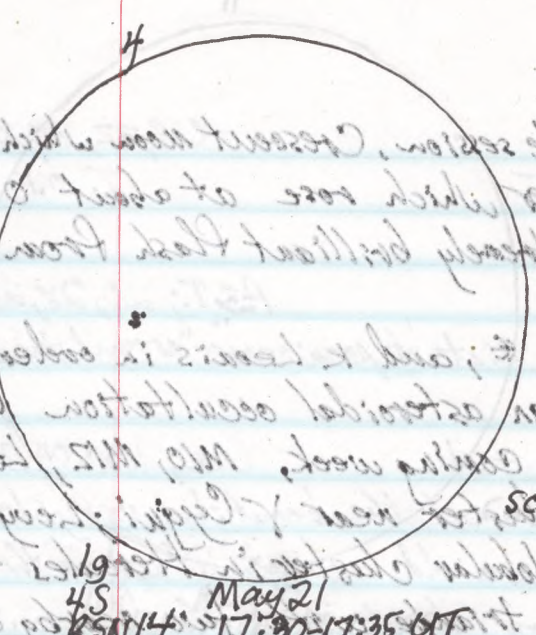
(M10 610) tried to observe Levy 334 and Levy 571
 but found them difficult. Both are globular
 clusters. The first one may have been farther than
 expected and the second one may have been difficult
 to see because of the proximity of Jupiter which was
 very bright. M10 610, a globular cluster in Oct
 about 20' west of star 571 (M10 610)
 was seen faintly, M10 Jupiter and 3 of its moons.
 6-11-32: In the early part of the observing session I
 observed Venus, near distantary conjunction, and
 Saturn and 3 of its moons.

2nd May 19 17:17:30NT to
 Sun 10 12 20:51
 2nd May 19 17:22-17:30NT
 Sun in Hor - one definite prominence at the bottom of the disk
 and other "tricks of prominence" elsewhere.
 2nd May 19 20:28-20:32
 During twilight I observed the spectacular conjunction
 of the Crescent Moon and Venus, listed as being 1.7' apart
 and at Oliv. UT. (See diagram). They were about 23°
 above the W horizon and about 8' down from center
 and Polaris. The moon was about 3 1/2 days old.

Polaris
 2007
 2007
 2007
 2007

(M10 610) tried to observe Levy 334 and Levy 571
 but found them difficult. Both are globular
 clusters. The first one may have been farther than
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 to see because of the proximity of Jupiter which was
 very bright. M10 610, a globular cluster in Oct
 about 20' west of star 571 (M10 610)
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 6-11-32: In the early part of the observing session I
 observed Venus, near distantary conjunction, and
 Saturn and 3 of its moons.

2nd May 19 17:17:30NT to
 Sun 10 12 20:51
 2nd May 19 17:22-17:30NT
 Sun in Hor - one definite prominence at the bottom of the disk
 and other "tricks of prominence" elsewhere.
 2nd May 19 20:28-20:32
 During twilight I observed the spectacular conjunction
 of the Crescent Moon and Venus, listed as being 1.7' apart
 and at Oliv. UT. (See diagram). They were about 23°
 above the W horizon and about 8' down from center
 and Polaris. The moon was about 3 1/2 days old.



May 21
 17:30-17:35 NT
 19 45
 45
 19 45
 45

Conjunction!
 Moon-Venus!

2007

03:30-04:15 UT y S7T8→6 (haze) ne; 18X5015b
ne: stars of late spring and summer, Moon and Venus
setting in NW at beginning of session, Saturn
in the W, Jupiter rising in the SE.

18X5015b: M10, M12, M5, M27, M57, M51, IC4665,
Barnard's Star and area, M4, M80, M13, M92,
BCygni, area of η Virginis.

S.-M. May 20-21 01:47-01:48 UT nd twl ne

Mercury
(1)

For about 1 minute I observed Mercury which
was quite bright but very low above the NW
horizon. There was a clear area of sky in the
NW, even though about 90% or more of the sky
was cloudy.

M. May 21 17:30-17:35 UT t c-8, 32, 28, 20, 15.5
sun 19 4s RSN14 T.O.F.

M. May 21 17:40-17:45 UT P.S.T.; 20, 28, 20E, 15.5
sun in HR - some hints of solar prominences in various places
around the southern half of the solar disk.

M.-T. May 21-22 01:30-01:35 UT nd mid-twilight ne

twilight view:
Saturn; Cr. Moon,
Venus, Mercury
/
(2)-consec.

I observed Mercury, easily seen about 10° above the
horizon in the NW in a clear opening among the trees.
Saturn was in the W about 50° above the horizon
with Regulus about 10° to its left and the
Crescent moon about 10° to its right. Brilliant
Venus was in the NW about midway between
Saturn and Mercury and about 35° above the
horizon.

03:30-04:40 UT y S8(?)T8 (call) ne; 18X5015b

ne: Crescent moon in the NW; Jupiter in the SE, stars
of late spring and early summer.

2

03:30-04:40 UT
 No: Crescent moon in the NW; Jupiter in the SE, stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 22

lg
 25
 25112

sc

1

03:30-04:40 UT
 No: stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 23

lg
 15
 15111

sc

May 22

lg
 25
 25112

sc

May 23

lg
 15
 15111

sc

03:30-04:40 UT
 No: Crescent moon in the NW; Jupiter in the SE, stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 24

lg
 25
 25112

sc

03:30-04:40 UT
 No: Crescent moon in the NW; Jupiter in the SE, stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 25

lg
 25
 25112

sc

03:30-04:40 UT
 No: Crescent moon in the NW; Jupiter in the SE, stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 26

lg
 25
 25112

sc

03:30-04:40 UT
 No: Crescent moon in the NW; Jupiter in the SE, stars of late spring and summer, Mars and Venus in the NW at beginning of season. Saturn in the NW, Jupiter rising in the SE.

May 27

lg
 25
 25112

sc

2007

18X5015b: M5, M10, M12, M4, area of Barnard's Star and the star itself, M27, M57, M11, M23, M4, M80, Jupiter and 3 of its moons. R Cor Bor, T Cor Bor

Tu. May 22 19:50-19:55 UT t C-8, 32, 28, 20, 15.5
Sun 1g 2s RSN12 T.O.F.

Tu. May 22 20:00-20:05 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in Hx - one definite prominence at the bottom of the disk and hints of others at other places.

Tu.-W. May 22-23 01:31-01:57 UT nd twl ne; 18x5015b

Moon, Venus

ne: With the sky about 80% or more overcast, I observed the "almost First Quarter Moon" in the W, and brilliant Venus in the WNW amid the clouds or under a layer of cloud and in a good opening in the NW I looked for Mercury but was not sure of seeing it, though it is possible I may have glimpsed it momentarily.

Mercury

(3) consec.

18X5015b: Crescent moon, actually only about 19 hours before First Quarter - at 21:03 UT; Venus; Mercury, easily seen for over 20 minutes between about 10° and 6° above the NW horizon

W. May 23 16:55-18:00 UT t C-8, 32, 28, 20, 15.5
Sun 1g 1s RSN11 very tiny spot seen with diligence T.O.F.
(new group)

W. May 23 17:05-17:10 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in Hx - hints of small prominences in several places

W.-Th. May 23-24 01:40-04:10 UT 00 S(?) T7 (Pg. 11) ne; 18x5015b; 20x000b; n C-14, 32, 88
ne: Stars of Spring; Venus, Saturn, Jupiter.
18X5015b: Saturn, areas of the W. sky

18:50:00: Jupiter and 3 of its moons. R. Carver, T. Carver
2 star itself, M 21, M 22, M 23, M 24, M 25
M 26, M 27, M 28, M 29, M 30, M 31, M 32, M 33, M 34, M 35, M 36, M 37, M 38, M 39, M 40, M 41, M 42, M 43, M 44, M 45, M 46, M 47, M 48, M 49, M 50, M 51, M 52, M 53, M 54, M 55, M 56, M 57, M 58, M 59, M 60, M 61, M 62, M 63, M 64, M 65, M 66, M 67, M 68, M 69, M 70, M 71, M 72, M 73, M 74, M 75, M 76, M 77, M 78, M 79, M 80, M 81, M 82, M 83, M 84, M 85, M 86, M 87, M 88, M 89, M 90, M 91, M 92, M 93, M 94, M 95, M 96, M 97, M 98, M 99, M 100

Tu. May 22 19:20-19:55 UT
Sun 19 22 RMLIS
C-8, 35, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Tu. May 22 20:00-20:05 UT
Sun in HR - one definite prominence at the bottom of the
T. Carver, R. Carver

Tu. May 22 01:31-01:37 UT
Sun in HR - one definite prominence at the bottom of the
T. Carver, R. Carver
18:50:00: Jupiter and 3 of its moons. R. Carver, T. Carver
2 star itself, M 21, M 22, M 23, M 24, M 25
M 26, M 27, M 28, M 29, M 30, M 31, M 32, M 33, M 34, M 35, M 36, M 37, M 38, M 39, M 40, M 41, M 42, M 43, M 44, M 45, M 46, M 47, M 48, M 49, M 50, M 51, M 52, M 53, M 54, M 55, M 56, M 57, M 58, M 59, M 60, M 61, M 62, M 63, M 64, M 65, M 66, M 67, M 68, M 69, M 70, M 71, M 72, M 73, M 74, M 75, M 76, M 77, M 78, M 79, M 80, M 81, M 82, M 83, M 84, M 85, M 86, M 87, M 88, M 89, M 90, M 91, M 92, M 93, M 94, M 95, M 96, M 97, M 98, M 99, M 100

W. May 23 16:22-16:00 UT
Sun 19 22 RMLIS
C-8, 35, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

W. May 23 17:02-17:10 UT
Sun in HR - faintest small prominence in second place
T. Carver, R. Carver

W. May 23 18:00-18:05 UT
Sun in HR - faintest small prominence in second place
T. Carver, R. Carver
18:50:00: Jupiter and 3 of its moons. R. Carver, T. Carver
2 star itself, M 21, M 22, M 23, M 24, M 25
M 26, M 27, M 28, M 29, M 30, M 31, M 32, M 33, M 34, M 35, M 36, M 37, M 38, M 39, M 40, M 41, M 42, M 43, M 44, M 45, M 46, M 47, M 48, M 49, M 50, M 51, M 52, M 53, M 54, M 55, M 56, M 57, M 58, M 59, M 60, M 61, M 62, M 63, M 64, M 65, M 66, M 67, M 68, M 69, M 70, M 71, M 72, M 73, M 74, M 75, M 76, M 77, M 78, M 79, M 80, M 81, M 82, M 83, M 84, M 85, M 86, M 87, M 88, M 89, M 90, M 91, M 92, M 93, M 94, M 95, M 96, M 97, M 98, M 99, M 100

2007

area of
Papagena
occultation

52

20x1006: very careful examination of part of the constellation
Leo in order possibly to have a hope of observing
or seeing the area of the occultation of a mag.
11 star by the asteroid 471 Papagena. The star
was at R.A.: 09 34 09.5339 Dec.: +28 56
47.380 (2000.0). The path was to move from NW
to SE and my position was supposed to be outside
the 1-Sigma line and NE of it. I understood
that the time was to be about 01:57 UT and
the star might drop by 1.7 mag to 12.4 (the
mag. of the asteroid) for at most 5.5 seconds.

Several facts made the observation very challenging:

- (1) it was only mid-twilight, with end of astronomical twilight not far about another 56 minutes - at 02:53 UT;
- (2) the moon was past First Quarter by about 5 hours (F.Q. was at 2h 03^m UT on May 23;
- (3) The bright moon was only about 10° SE of the star;
- (4) the magnitude of the star was such that I could not be sure of seeing it at all in the large binoculars;
- (5) In twilight there would likely be too few stars visible to use the finder of the C-14 to "star-hop" to the right location - to use that telescope.

I was able to "star hop" from δ to γ & ϵ Leonis and then to μ , 29, and ϵ Leonis and then to 13 Leonis and then to star at about 9h 33m; Dec. +28° 20° (See U144 and U143.)

I was able to see the star marked N of that one on U143, but not the one slightly to the WNW of it - unmarked on Uranometria, but marked on MSA - which was supposed to be the occulted star. I had tried but not succeeded in seeing the "occulted star" according to predictions, but when I considered the difficulties, I had not expected to

-difficulties,
as
expected, in
seeing the
star.

very careful examination of part of the constellation
 has in order possible to have a hope of observing
 or seeing this star at the constellation of a way.
 It star of the asteroid 411 Pegasus. The star
 was at R.A.: 01 07.533 Dec.: +28 55
 47.380 (2000.0). The path was to have from NW
 to SE and my position was supposed to be outside
 the figure line and N.E. of it. I intended
 that the time was to be 17:20-17:25 UT and
 the star might be seen.

09
 05
 May 24
 RSN0 17:20-17:25 UT

very careful examination of part of the constellation
 has in order possible to have a hope of observing
 or seeing this star at the constellation of a way.
 It star of the asteroid 411 Pegasus. The star
 was at R.A.: 01 07.533 Dec.: +28 55
 47.380 (2000.0). The path was to have from NW
 to SE and my position was supposed to be outside
 the figure line and N.E. of it. I intended
 that the time was to be 17:30-17:35 UT and
 the star might be seen.

09
 05
 May 25
 RSN0 17:30-17:35 UT

Several facts make the observation very challenging:
 (1) it was only mid-twilight, with end of astronomical
 twilight not far about another 20 minutes -
 02:23 UT; (2) the moon was just First Quarter
 by about 2 hours (7.8 was at 21:03 UT on
 May 23; (3) The twilight moon was only about 10°
 SE of the star; (4) the magnitude of the star
 was such that I could not be sure of seeing
 it at all in the large binoculars. (5) In twilight
 there would likely be too many stars visible to
 use the label of the "star" to
 the right location.

09
 05
 May 26
 RSN0 17:35-17:40 UT

Several facts make the observation very challenging:
 (1) it was only mid-twilight, with end of astronomical
 twilight not far about another 20 minutes -
 02:23 UT; (2) the moon was just First Quarter
 by about 2 hours (7.8 was at 21:03 UT on
 May 23; (3) The twilight moon was only about 10°
 SE of the star; (4) the magnitude of the star
 was such that I could not be sure of seeing
 it at all in the large binoculars. (5) In twilight
 there would likely be too many stars visible to
 use the label of the "star" to
 the right location.

When I conducted the observations, I had not expected to
 seeing the "isolated star" according to prediction, but
 marked on MAF - which was supposed to be the
 WNW of it - marked on Uranometer, but
 one on MAF, but not the one slightly to the
 I was able to see the star marked N of first
 of 33m; Dec +28° 20' (See WFA and WFA3)
 then to 13 hours and then to star at about
 Lewis and then to 11, 29, and 6 hours and
 I was able to "star" from 4 to 7 1/2

- different
 as expected
 seeing the
 star.

2007

see the event.

I also observed areas of Scorpius and Jupiter with all 4 of the Galilean moons on the same side of the planet.

C-14, 32, 8.8: Venus near dichotomy; Lunar craters along the terminator - observed with the 8.8mm Series 4000 Meade eyepiece - giving 444.3X and excellent views of the lunar craters.

Th. May 24 17:20-17:25 UT t
Sun Og Os RSN O

PS 10/11
T. O.F. C-8, 32, 28, 20, 15.5

Th. May 24 17:25-17:30 UT nd
Sun in Hx - some hints of prominences

P.S.T.; 20, 28, 20E, 15.5

F. May 25 17:25-17:30 UT t
Sun Og Os RSN O

C-8, 32, 28, 20, 15.5
T. O.F.

F. May 25 17:30-17:35 UT nd
Sun in Hx - some hints of prominences around the disk

P.S.T.; 20, 28, 20E, 15.5

F.-S. May 25-26 01:46-01:50 nd twl ne; 18x50isb

Mercury ne: During twilight I very easily saw Mercury about 10° above the NW horizon. I also saw Venus in the WNW and the gibbous moon in the WSW to W sky
18x50isb: Mercury, Venus, the Moon.

Sa. May 26 17:35-17:40 UT t
Sun Og Os RSN O

C-8, 32, 28, 20, 15.5
T. O.F.

Sa. May 26 17:45-17:50 UT nd
Sun in Hx - hints of prominences at various places on disk

P.S.T.; 20, 28, 20E, 15.5

Sat. May 26-27 01:36-01:46 UT nd twl ne. 18x50isb

ne: Venus brilliant in the NW; Regulus and Saturn high in

see the event.
I also observed a pair of Scapins and Jupiter with
all 4 of the Galilean moons on the same side of the
planet.

6-14 32 8.8: Venus near dichotomy; lunar crater deep
the terminator - observed with the 8.8m. This was
Made experience with H4.3X and excellent views of
the lunar craters.

May 29
TU 52:17-20:17:25UT

9
15
RESN

T.O.F.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

the terminator - observed with the 8.8m. This was

Made experience with H4.3X and excellent views of
the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

the terminator - observed with the 8.8m. This was

Made experience with H4.3X and excellent views of
the lunar craters.

T.O.F.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

the terminator - observed with the 8.8m. This was

Made experience with H4.3X and excellent views of
the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep
the terminator - observed with the 8.8m. This was
Made experience with H4.3X and excellent views of
the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

the terminator - observed with the 8.8m. This was

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the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

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Made experience with H4.3X and excellent views of
the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep

the terminator - observed with the 8.8m. This was

Made experience with H4.3X and excellent views of
the lunar craters.

6-14 32 8.8: Venus near dichotomy; lunar crater deep
the terminator - observed with the 8.8m. This was
Made experience with H4.3X and excellent views of
the lunar craters.

2007

the W; gibbous moon in the SW; Vega in the E.; Mercury
18X5015b: Venus, Saturn and Regulus, gibbous moon with the
crater Plato beautifully situated on the terminator;
Mercury seen immediately with the binoculars,
though it was not until near the end of the
short twilight session that I was sure
of seeing Mercury naked-eye

Mercury.

03:10-03:40 UT y S.T. 5-4 (gml; increasing cloud) ne; 18X5015b

ne: stars of late spring, at least some bright ones
such as Deneb, Vega, Antares, Arcturus, Spica;
and the bright gibbous moon in Virgo; one
meteor

18X5015b: some stars of Lyra and Cygnus and
Scorpius; M80

M.-T. May 28-29 01:44-01:49 UT nd twl ne; 18X5015b

Mercury

ne: Mercury easily seen about 10° above the NW
horizon, Venus in the WNW; gibbous moon
in the SSE, but considerable cloud in most
parts of the sky.

18X5015b: Mercury, Venus, gibbous moon.

Tu. May 29 17:20-17:25 UT t C-8, 32, 28, 20, 155

Sun lg ls RSN 11

J.O.F.

Tu. May 29 17:25-17:30 UT nd P.S.T.; 20, 28, 20, 155

Sun in H α : one definite prominence on the bottom and
other "hints of prominences"

Th.-W. May 29-30 01:44-01:49 UT nd twl ne; 18X5015b

Mercury

ne: In twilight I observed brilliant Venus in the NW,
Regulus and Saturn about 10° apart in the W, and
Mercury in the NNW though Mercury was not seen
at first, but within a couple of minutes it could be

the W; gibbons were in the SW; Vesp in the E; Mercury
 18X2012p: Venus, Saturn and Jupiter, gibbons were seen with the
 crater Photo beautifully situated on the horizon
 Mercury seen immediately with the binoculars
 though it was not until near the end of the
 night twilight session that I was sure
 of seeing Mercury naked-eye
 03:10-03:40 UT of 23.7.2012 (Sat: increasing cloud 10; 18X2012p)

the W; gibbons were in the SW; Vesp in the E; Mercury
 18X2012p: Venus, Saturn and Jupiter, gibbons were seen with the
 crater Photo beautifully situated on the horizon
 Mercury seen immediately with the binoculars
 though it was not until near the end of the
 night twilight session that I was sure
 of seeing Mercury naked-eye
 03:10-03:40 UT of 23.7.2012 (Sat: increasing cloud 10; 18X2012p)

June 8
 17:25-17:30 UT
 18X2012p

June 9
 17:45-17:50 UT
 18X2012p

and the bright gibbons were in the W; Venus
 18X2012p: some stars of late and progressed
 Scapular: M80

and the bright gibbons were in the W; Venus
 18X2012p: some stars of late and progressed
 Scapular: M80

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

18X2012p

18X2012p

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

18X2012p: Venus, gibbons were
 parts of the sky
 in the 22E but considerable cloud in west
 horizon, Venus in the WNW; gibbons were
 seen about 10° above the WNW
 18X2012p

2007

be seen fairly easily.

18X5015b: Saturn and Regulus, Venus, Mercury.

04:20-04:35 UT nd SPT4 (gml) ne

With a very bright gibbous moon in the S, I observed for a short while seeing the Big Dipper, Polaris, Kochab, Deneb and Vega, Arcturus and Spica

18X5015b: a few stars in the NW and some of the stars in Cygnus.

Th.-F. June 7-8 04:10-05:00 UT y SPT7 (some haze) ne; 18X5015b

ne: Jupiter in Scorpius in S.; stars of summer.

18X5015b: M5, M10, M2, M4, Barnard's Star and area, M107 area of Vesta which was not too far from

23 Messier objects

M107, M4, M80, M28, M22, M20, M8, M21, M23, M24, M25, M11, M26, M27, M57, M39, M16, M17, M18, Col 299, Jupiter and its four Galilean moons.

F. June 8 17:25-17:30 UT t

C-8, 32, 28, 20, 15.5 T.O.F.

Sun 2g 5s RSN25

F. June 8 17:35-17:40 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in Hx - hints of prominences in several places

Sa. June 9 17:45-17:50 UT t

C-8, 32, 28, 20, 15.5 T.O.F.

Sun 2g 4s RSN24

Sa June 9 17:50-17:55 UT nd

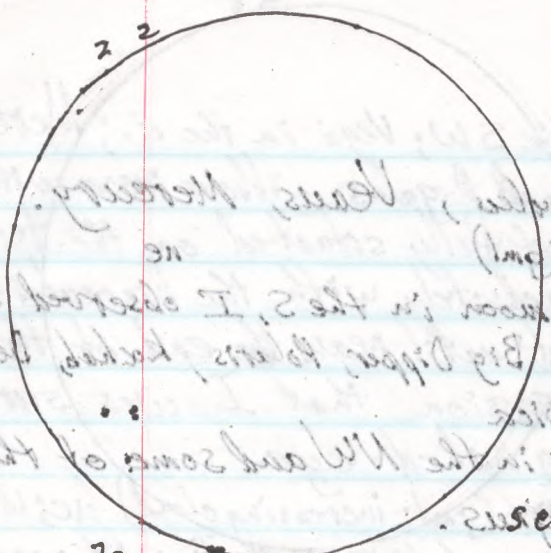
P.S.T.; 20, 28, 20E, 15.5

Sun in Hx. some "hints" of prominences

Sa.-Su. June 9-10 03:45-05:25 UT y SPT9 (very good) ne; 18X5015b

ne: stars of late spring and summer; Venus and Saturn in the W. earlier in the evening. Late in the session I saw a shadow from Jupiter

shadow from Jupiter!



be seen fairly easily.
 18x scope: Saturn and Jupiter, Venus Mercury.
 With very bright gibbous moon in the S, I observed for a start while seeing the Big Dipper, Ursa, Kappa, Lambda and Upsilon. Asteroid and Spica
 18x scope: 2 transits in the NW and some of the stars in Cygnus.

29
 45
 RSN 17:20-17:25 UT
 June 10

18x scope: M10, M11, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, M689, M690, M691, M692, M693, M694, M695, M696, M697, M698, M699, M700, M701, M702, M703, M704, M705, M706, M707, M708, M709, M710, M711, M712, M713, M714, M715, M716, M717, M718, M719, M720, M721, M722, M723, M724, M725, M726, M727, M728, M729, M730, M731, M732, M733, M734, M735, M736, M737, M738, M739, M740, M741, M742, M743, M744, M745, M746, M747, M748, M749, M750, M751, M752, M753, M754, M755, M756, M757, M758, M759, M760, M761, M762, M763, M764, M765, M766, M767, M768, M769, M770, M771, M772, M773, M774, M775, M776, M777, M778, M779, M780, M781, M782, M783, M784, M785, M786, M787, M788, M789, M790, M791, M792, M793, M794, M795, M796, M797, M798, M799, M800, M801, M802, M803, M804, M805, M806, M807, M808, M809, M810, M811, M812, M813, M814, M815, M816, M817, M818, M819, M820, M821, M822, M823, M824, M825, M826, M827, M828, M829, M830, M831, M832, M833, M834, M835, M836, M837, M838, M839, M840, M841, M842, M843, M844, M845, M846, M847, M848, M849, M850, M851, M852, M853, M854, M855, M856, M857, M858, M859, M860, M861, M862, M863, M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

17:35-17:40 UT
 Sun 29 25 RSN 2

17:35-17:40 UT
 Sun 29 25 RSN 2

17:45-17:50 UT
 Sun 29 25 RSN 2

17:50-17:55 UT
 Sun 29 25 RSN 2

17:55-18:00 UT
 Sun 29 25 RSN 2

some think of prominence

29-20 June 10 03:45-04:30 UT y 2879 (veggard) NS; 18x scope
 NS: Stars of late spring and summer; Venus and Saturn in the W. center in the evening. Late in the session I saw a station from Jupiter
 Jupiter!
 station from

2007

which was very bright in the south. I held out my arm and saw its shadow on the side of the observatory.

18X50ISB: M11, M26, M16, M17, M18, M22, M28, M9, M23, M24, M25, M8, M20, M21, M4, M80, M10, M12, M15, IC4665, Barnard's Star, RCorBer, TCorBer, M57, M27, M39, NGC6633 in Ophiuchus, the asteroid Vesta located SW from M107, M107, area of Pluto which is located in Sagittarius about 3° ESE of the star ϵ Serpentis. (See U. 293.), Jupiter and its 4 Galilean moons.

Vesta

"area of Pluto"

Su. June 10 17:20-17:25 UT t
Sun 29 4s RSN 24

P.S.T. C-8, 32, 28, 20, 15.5
T.O.F.

Sa June 10 17:30-17:35 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in Hdx - some "hints" of prominences - small ones

S.-M. June 10-11 02:30-04:40 UT y S8T9

ne; 18X50ISB; 20X100B

ne: stars of late spring and summer; Venus and Saturn in the W.; later Jupiter in the S.. At about 04:15 UT

there was a possible pass of the International Space Station in the N. sky

18X50ISB: Saturn in the W.; various areas of the sky

20X100B: M5, M107 and the area of the asteroid Vesta, as well as Vesta which had moved slightly westward from the previous night, area of the planet Pluto, Jupiter and 3 of its Galilean moons (though one may not have been seen because of proximity to another of the moons.) M4, M80, M19, M62, M9, M11 and RScuti, M16, M17, M18, M22, M24, M25, M8, M20, M21, NGC 6633, M10, M12, M14, NGC 7789,

Vesta

2007

Kemblers Cascade.

M.-T. June 11-12 02:50-03:25 UT y twl + SBT 7-8 (some cloud) ne; 18X50ISB
ne: Jupiter in the S; stars of summer.

Vesta

18X50ISB: M107, Vesta, area of Pluto about 3° ESE of the star β Serpentis, Jupiter and 3 of the Galilean moons, R Cor Bor and T Cor Bor, ϵ Lyrae and M57, β Cyg, M13, M92, M4, M80, β Librae.

Tu. June 12 18:25-18:30 UT t
sun 19 35 RSN13

C-8, 32, 28, 20, 15.5
T.O.F.

Tu. June 12 18:35-18:40 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in Hd - a few slight "hints" of prominences

T.-W. June 12-13 03:45-04:20 UT y S?T 5-3 (increasing cloud) ne; 18X50ISB
ne: Jupiter in the S; stars of summer

18X50ISB: M10, M12, M4, M80, R Cor Bor, T Cor Bor, M13, M17, M18, M20, M21, M23, M24, M25, area of Pluto, M9, M19, M62, M51, Alcor and Mizar, M5, M107, the asteroid Vesta

Vesta

W. June 13 17:15-17:20 UT ss
sun 09 05 RSN0

C-8, 32, 28, 20, 15.5
T.O.F.

W. June 13 17:20-17:25 UT y

P.S.T.; 20, 28, 20E, 15.5

Sun in Hd - no obvious prominences seen with only possible "hints" of such.

W.-Th. June 13-14 03:45-05:00 UT y (S9; T9) ne; 18X50ISB

ne: On a night of excellent seeing and excellent transparency, I enjoyed the views of the summer sky with Jupiter
18X50ISB: M11 and R Scuti area, M26, M16, M17, M18, M23,

M.T. June 11-12 02:45-03:25 UT
 No: Jupiter in the 2nd star of summer.
 Observed: M107, Vesta, area of Pluto about 30 ESE of
 the star β Serpentis. Jupiter and 3 of the
 Galilean moons, R. Carver and T. Carver
 Observed: M107, M103, M102, M101, M100, M99, M98, M97, M96, M95, M94, M93, M92, M91, M90, M89, M88, M87, M86, M85, M84, M83, M82, M81, M80, M79, M78, M77, M76, M75, M74, M73, M72, M71, M70, M69, M68, M67, M66, M65, M64, M63, M62, M61, M60, M59, M58, M57, M56, M55, M54, M53, M52, M51, M50, M49, M48, M47, M46, M45, M44, M43, M42, M41, M40, M39, M38, M37, M36, M35, M34, M33, M32, M31, M30, M29, M28, M27, M26, M25, M24, M23, M22, M21, M20, M19, M18, M17, M16, M15, M14, M13, M12, M11, M10, M9, M8, M7, M6, M5, M4, M3, M2, M1.

09 June 14
 RSN0 20:10-20:15 UT

Kerber's Cassiopeia

M.T. June 11-12 02:45-03:25 UT
 No: Jupiter in the 2nd star of summer.
 Observed: M107, Vesta, area of Pluto about 30 ESE of
 the star β Serpentis. Jupiter and 3 of the
 Galilean moons, R. Carver and T. Carver
 Observed: M107, M103, M102, M101, M100, M99, M98, M97, M96, M95, M94, M93, M92, M91, M90, M89, M88, M87, M86, M85, M84, M83, M82, M81, M80, M79, M78, M77, M76, M75, M74, M73, M72, M71, M70, M69, M68, M67, M66, M65, M64, M63, M62, M61, M60, M59, M58, M57, M56, M55, M54, M53, M52, M51, M50, M49, M48, M47, M46, M45, M44, M43, M42, M41, M40, M39, M38, M37, M36, M35, M34, M33, M32, M31, M30, M29, M28, M27, M26, M25, M24, M23, M22, M21, M20, M19, M18, M17, M16, M15, M14, M13, M12, M11, M10, M9, M8, M7, M6, M5, M4, M3, M2, M1.

09 June 15
 RSN0 17:50-17:55 UT

C-8 32 28 20 122
 T.O.F.

T. June 12 18:32-18:40 UT
 Sun in HR - a few slight hints of prominences

P.S.T. 20:58 20:122

T. June 12 18:32-18:40 UT
 Sun in HR - a few slight hints of prominences

T. June 12-13 03:45-04:20 UT
 No: Jupiter in the 2nd star of summer.
 Observed: M107, Vesta, area of Pluto
 Observed: M107, M103, M102, M101, M100, M99, M98, M97, M96, M95, M94, M93, M92, M91, M90, M89, M88, M87, M86, M85, M84, M83, M82, M81, M80, M79, M78, M77, M76, M75, M74, M73, M72, M71, M70, M69, M68, M67, M66, M65, M64, M63, M62, M61, M60, M59, M58, M57, M56, M55, M54, M53, M52, M51, M50, M49, M48, M47, M46, M45, M44, M43, M42, M41, M40, M39, M38, M37, M36, M35, M34, M33, M32, M31, M30, M29, M28, M27, M26, M25, M24, M23, M22, M21, M20, M19, M18, M17, M16, M15, M14, M13, M12, M11, M10, M9, M8, M7, M6, M5, M4, M3, M2, M1.

C-8 32 28 20 122
 T.O.F.

M. June 13 17:17-17:20 UT
 Sun of 02 RNO

P.S.T. 20:58 20:122

W. June 13 17:20-17:25 UT
 Sun in HR - no obvious prominences seen with only possible
 hints of such.

W.F. June 13-14 03:45-04:20 UT (P.S.T.)
 No: In a night of excellent seeing and excellent transparency.
 I enjoyed the view of the summer sky with Jupiter
 Observed: M107, Vesta, area of Pluto
 Observed: M107, M103, M102, M101, M100, M99, M98, M97, M96, M95, M94, M93, M92, M91, M90, M89, M88, M87, M86, M85, M84, M83, M82, M81, M80, M79, M78, M77, M76, M75, M74, M73, M72, M71, M70, M69, M68, M67, M66, M65, M64, M63, M62, M61, M60, M59, M58, M57, M56, M55, M54, M53, M52, M51, M50, M49, M48, M47, M46, M45, M44, M43, M42, M41, M40, M39, M38, M37, M36, M35, M34, M33, M32, M31, M30, M29, M28, M27, M26, M25, M24, M23, M22, M21, M20, M19, M18, M17, M16, M15, M14, M13, M12, M11, M10, M9, M8, M7, M6, M5, M4, M3, M2, M1.

2007

Vesta

-29 Messier objects

M24, M25, M22, M28, M8, M20, M21, M10, M12, M14, M9, M107 and nearby Vesta, M5, M15, M81, M82, M57, M27, M51, Alcor and Mizar, Cor Caroli, M4, M80, M13, M92, Col 299.

Th. June 14 20:10-20:15 UT t
Sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

Th. June 14 20:15-20:20 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in Hx - only faint hints of small prominences

Th-F. June 14-15 04:05-05:25 UT y (58-9; T9)

ne; 18x501sb

ne: stars of summer; Jupiter brilliant in the S.; one or two or more meteors.

Vesta

18x501sb: M9, M107 and nearby Vesta, M10, M12, M14, M11 and R Scuti and area, M5, M15, M16, M17, M18, M19, M62, area of Pluto SE of the star ϵ Serpentis, M23, M24, M25, M22, M28, M8, M20, M21, R Cor Bor and T Cor Bor, β Cygni, M57, M27, Col 299, M71, M81 and M82, Preamble Cascade, Keble 2, Barnard's Star, NGC 6633, NGC 7789, deep sky objects in Cassiopeia possibly including M103.

F. June 15 17:50-17:55 UT t
Sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

F. June 15 17:55-18:00 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in Hx - only "hints" of prominences at bottom of disk.

Sa-Su. June 16-17 01:00-03:45 UT 00 ST 0-6 Varied ue; 20x100b

ne: After having a gathering of various members of the Kingston Centre for a barbeque and planned observing session, the weather proved to be not too good. Some people arrived around 3:00 p.m. E.D.T and we had a

2007

good visit on a pleasantly warm afternoon. Those who came were Fred and Nancy Barretti, Ken Kingdon, Susan Gagnon, and John Hurley. Fred and Ken went for a boat ride with me over to McCrimmons Bay. I cooked hot dogs and hamburgers on the Barbeque and the guests appeared to enjoy the food. Fred and Nancy left and John left before I opened the roof of the observatory. After I opened the roof, Ken and then Susan left since the weather did not look promising. I observed alone from about 02:10 UT. to about 03:45 UT. By 03:10 the skies had at least partly cleared and for a while after that they remained partly clear, but later again clouded up. However, I did see many of the stars of Summer and also Jupiter in the South.
 20x100b: Jupiter and 3 of its Galilean moons.

Su. June 17 18:05-18:10 UT t M26, U and C-8, 32, 20, 20, 15.5
 sun Og Os RSN0 T.O.F.

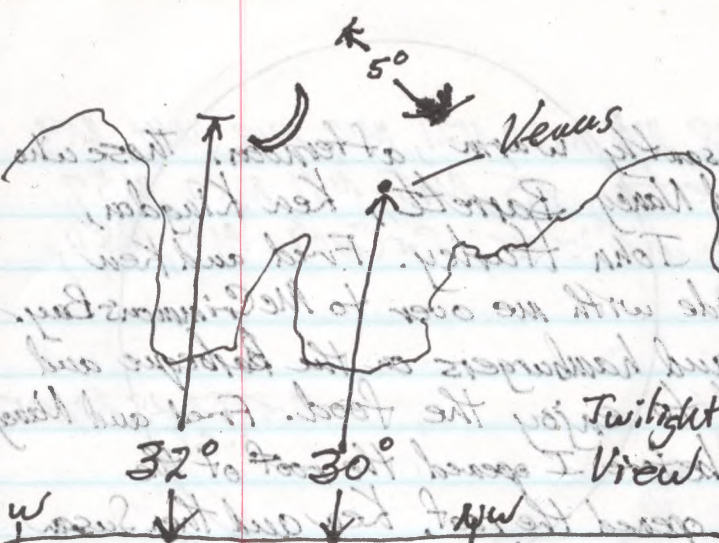
Su. June 18 18:10-18:15 UT nd P.S.T.; 20, 28, 20E, 15.5
 sun in H.L. - only some "hints" of prominences

S.-M. June 18-19 02:50-03:50 UT y (twl + S8T9) ne; 18X5015b
 ne: stars of summer; Crescent moon, Venus and Saturn in the W. in the early part of the session.

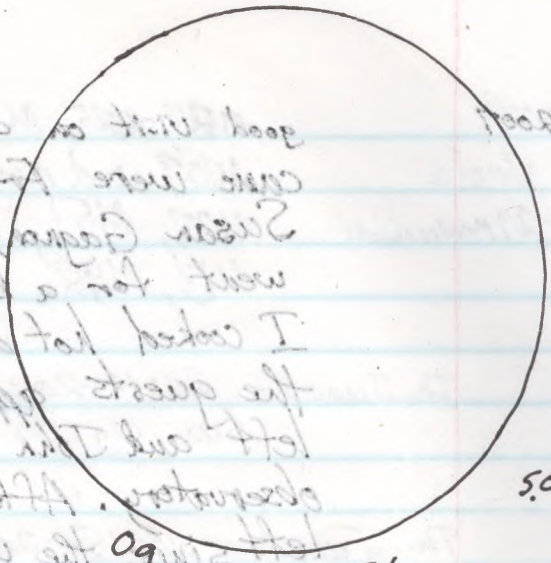
Vesta

18X5015b: Jupiter and 4 moons, M107, Vesta, M9, M19, M62, at ea of Pluto, M11 and R Scuti, M16, M17, M18, M25, M26, M71, M5, M27, M57, M51, M101, M81, M82, T Cor Bor, R Cor Bor, Col 299, Kemble's Cascade, Kemble 2, NGC 7789, Bernard's Star and area, IC 4665, NGC 6633, U and E4 Del.

M.-T. June 18-19 01:30-01:35 UT nd twl ne
 In twilight I saw the Crescent Moon and Venus



2007 June 19 01:30 UT: Steaming View of the Crescent Moon and Venus.



09
05
RSNO June 21
20:10-20:15 UT

08:35 20:15
T.O.F.

18:25: 20:25, 18:2

2-M. June 19-18 03:20-03:25 UT (July 28:17) No. 182012

20. June 18 18:10-18:15 UT
Sun in H&K - only zone
182012: Jupiter and Saturn

182012: Jupiter and Saturn
in the W. in the east part of the session.

182012: Venus and Saturn
in the W. in the east part of the session.

182012: Venus and Saturn
in the W. in the east part of the session.

M-T June 18-19 01:30-01:35 UT
In twilight I saw the Crescent Moon and Venus

M-T June 18-19 01:30-01:35 UT
In twilight I saw the Crescent Moon and Venus

2007

in the WNW only 5 degrees apart. (See diagram)

03:45-04:35 UT y S8 T6-7 (haze) ne; 18X5015b

ne: stars of summer

Vesta

18X5015b: M107, Vesta, M9, M23, M24, M25, M22, M28, M8, M20, M21, M11 and R Scuti; M26, M16, M17, M18, M4, M80, Jupiter and 3 of its moons, M27; Col 299, M57, BCy9, M13, M92, T Cor Bor, R Cor Bor, IC 4665, Barnard's Star and area nearby; NGC 6633, M71.

W-Th. June 20-21 03:40-05:50 UT 00 S8 T8-9.5 (varied) ne; 18X5015b;

ne: stars of summer; Jupiter in S.; earlier Venus had been seen; Crescent moon was up in early part of the session.

18X5015b: M4, M107 and Vesta, M9, area of Pluto; M23, M24, M25, M11 and R Scuti area; M16, M17, M18, M26, U and EU Del, BCy9, M27, M5, Col 299, T Cor Bor,

20X100b: M107, Vesta, M9, M22, Jupiter and 3 moons, M19, M62, M80, T Cor Bor, R Cor Bor.

C-14,55: M57, a slight attempt to locate the area of Pluto

Because I thought that T Cor Bor might have had a slight increase in brightness, I showed David Levy and said it might have shown a 1/2-magnitude increase in brightness, but I was not sure if it might be a fluctuation or a significant beginning of an outburst.

Th. June 21 20:10-20:15 UT t

sun 09 08 RSN0

C-8, 32, 28, 20, 15.5

Th. June 20 20:15-20:20 UT nd

sun in the hints of prominences on bottom edge.

P.S.T.; 20, 28, 20E, 15.5

2007 Th. F. June 21-22 04:00 - 05:25 UT y S9T9-9.5(1) ne; 18X5015b

ne: stars of winter; Jupiter in the S.; Crescent Moon not yet set in W. at beginning of session.

Vesta

34 Messier Objects

18X5015b: M107 and Vesta, M101, M51, M9, M19, M62, area of Pict, M4, M80, M6, M7, M16, M17, M18, M22, M23, M24, M25, M28, M11 and R Scuti area, NGC 6633, IC4665, Barnard's Star and area, M10, M12, M14, M5, M15, T Cor Bor which did not seem slightly brighter than usual as it had the previous nights, R Cor Bor, M13, M92, M57, M27, β Cyg, Col 299, M27, M81, M82, Kemble's Cascade, Kemble 2, M31, M32, M110.

F. June 22 17:25-17:30 UT t

C8, 32, 28, 20, 15.5 T.O.F.

Sun Hg Os RSNO

F. June 22 17:45-17:50 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in H α - scarcely any hints of prominences at all

F. S. June 22-23 04:40 - 05:55 UT y S8T9.5 ne; 18X5015b

ne: stars of summer, Jupiter in the S.

Vesta

38 Messier Objects

18X5015b: M107 and Vesta, M9, M19, M62, M10, M12, M14, M8, M20, M21, M22, M28, M16, M17, M18, M11 and R Scuti, M26, M23, M24, M25, M2, M57, M27, M71, M29, M39, M2, U and E U Del, M5, M15, M51, M101, NGC 654 (near M103), NGC 7789, T Cor Bor, R Cor Bor, Cor Caroli, Barnard's Star and area, NGC 6633, M81, M82, Kemble's Cascade, Kemble 2, M31, M32, M110, M4, M80, β Cyg, Col 299.

15:38-17:40 UT
P.S. unit
M128

03
 05
 RSN0
 June 23
 18:35-18:40 UT

09
 05
 RSN0
 June 24
 17:30-17:35 UT

19
 15
 RSN11
 June 25
 19:35-19:40 UT

19
 25
 RSN12
 June 26
 17:22-17:25 UT

19
 15
 RSN17
 June 29
 17:35-17:40 UT

19
 15
 RSN17
 June 29
 17:35-17:40 UT

2007 Sa. June 23 18:35-18:40 UT t
Sun 09 05 RSN0

C-8, 32, 28, 20, 15.5
T.O.F.

Sa. June 23 18:40-18:45 UT nd
sun in Hx - only "hints" of some prominences

P.S.T.; 20, 28, 20E, 15

Sa-Sun. June 23-24 04:45-04:50 UT nd 57T45 (cloud) ne

I observed briefly, in spite of a sky that was partly
overcast, but there was some clearing. I saw
Jupiter in the S., and the Big Dipper. A bit of
the moon was seen amid the trees to the W.

Su. June 24 17:30-17:35 UT t
Sun 09 08 RSN0

C-8, 32, 28, 20, 15.5
T.O.F.

Su. June 24 17:40-17:45 UT nd
Sun in Hx - only some 'hints' of prominences

P.S.T.; 20, 28, 20E, 15.5

M. June 25 19:35-19:40 UT t
Sun 19 15 RSN11

C-8, 32, 28, 20
T.O.F.

M. June 25 19:40-19:45 UT nd
Sun in Hx - definite indications of small prominences on the lower
part of the disk, especially the lower right.

Tu. June 26 17:22-17:25 UT t
Sun 19 25 RSN12

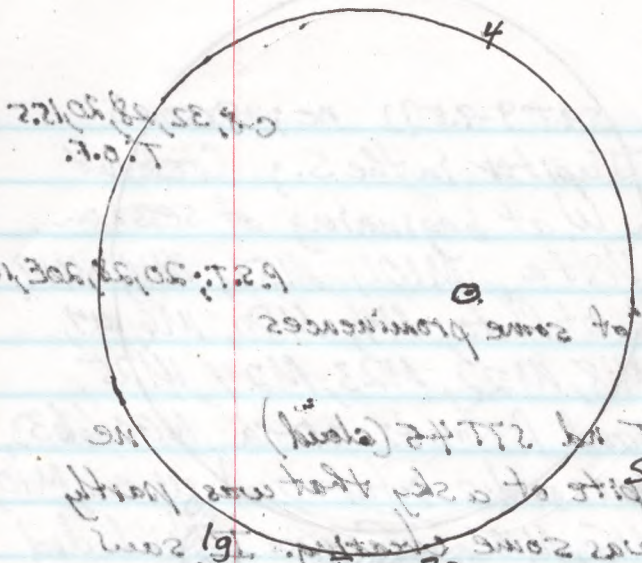
C-8, 32, 28
T.O.F.

Tu. June 26 17:25-17:28 UT nd
Sun in Hx - only "hints" of prominences on lower
right side and at the bottom of the disk

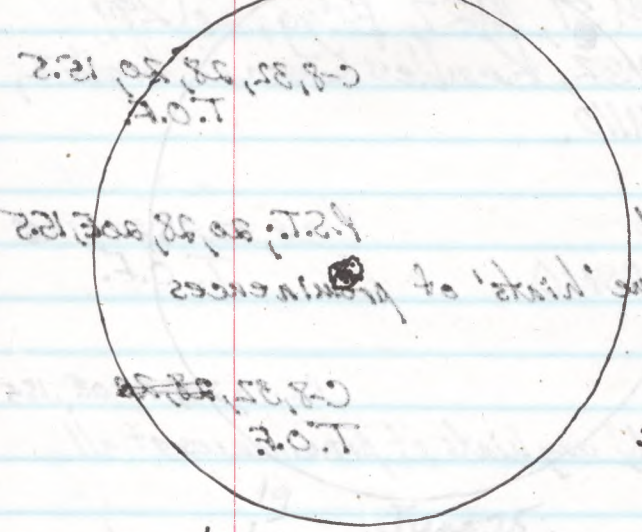
P.S.T.; 20

F. June 29 17:35-17:40 UT t
Sun 19 75 RSN17

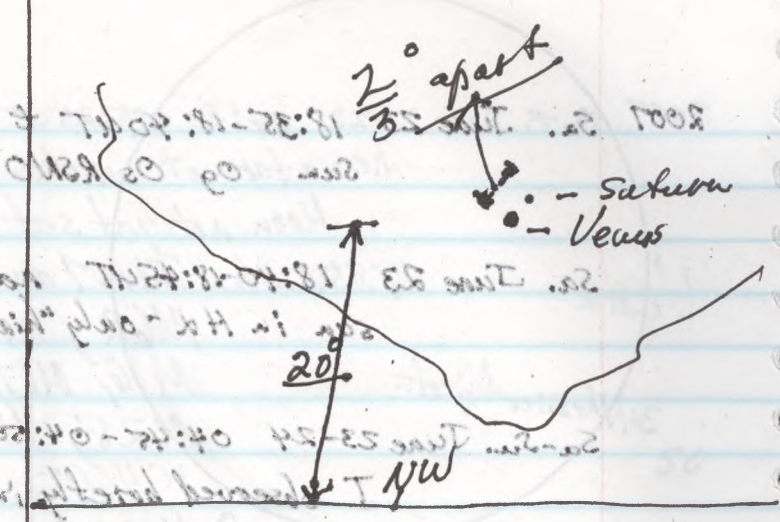
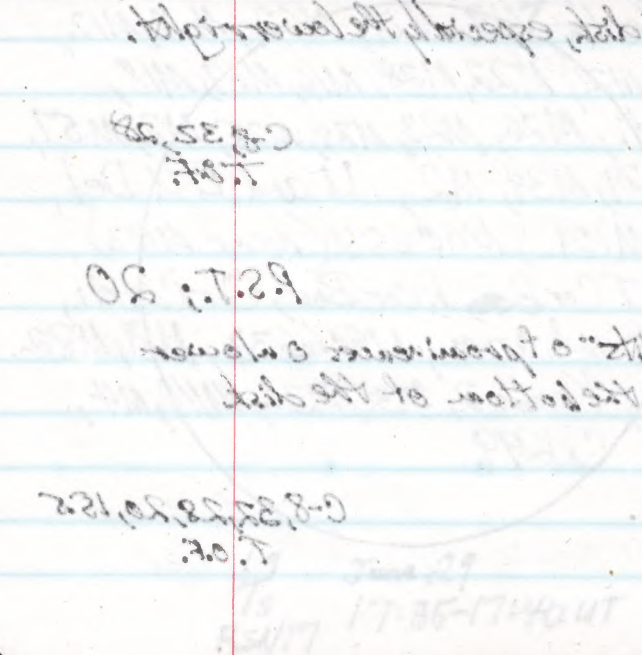
C-8, 32, 28, 20, 15.5
T.O.F.



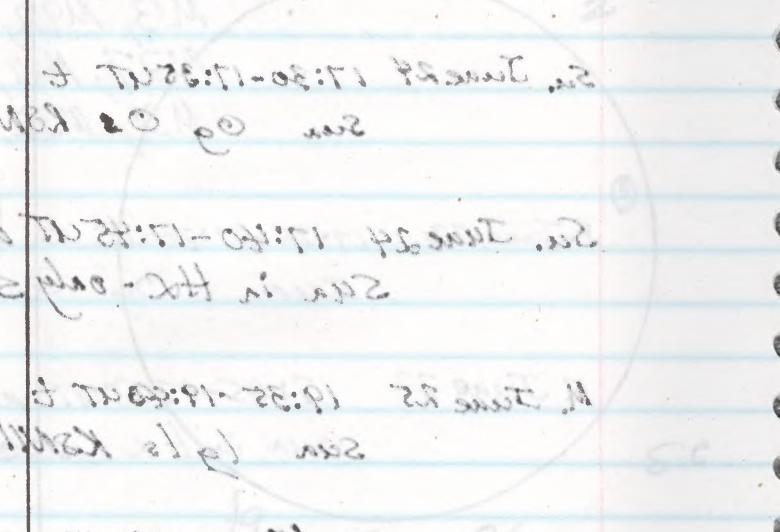
June 30
19:00 - 19:05 UT



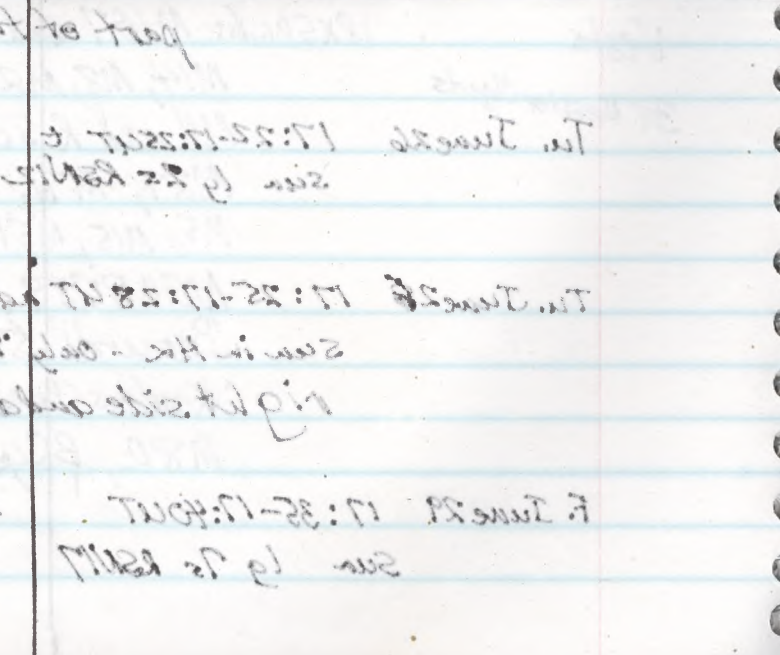
July 2
17:35 - 17:40 UT



2007 July 2, 01:40 UT View to NW showing Venus - Saturn conjunction



June 22 19:35 - 19:40 UT



2007 F. June 29 17:40-17:45 UT nd P.S.T.; 20, 28, 20E, 15S
sun in H_α - only small hints of prominences at the bottom limb of the sun, and white faculae near the sunspot

F.-S. June 29-30 03:02-03:07 UT nd+y S?T4-5 (fml) ne
I briefly observed with a very bright almost Full Moon in the SE (roughly 10 hours before the moment of Full Moon). Jupiter was about 6° from Antares and about 2° up and to the right from the moon. The Summer Triangle of stars were high in the E. The Big Dipper was in the NW and Arcturus was high in the W.

Sa. June 30 19:00-19:05 UT t C-8, 32, 28, 20, 16S
sun lg 4s RSN14 T.O.F.

Sa. June 30 19:10-19:15 UT nd P.S.T.; 20, 28, 20E, 15S
sun in H_α - some hints of small sharp prominences on the lower half of the disk

S.-M. July 1-2 01:40-01:45 UT y twl ne
During bright twilight I observed the closest easily-visible bright planet conjunction of the year, namely the Venus-Saturn Conjunction in the NW evening sky. They had been close the previous night also, though I had not seen them at that time. (See diagram.) They were about 20° above the NW horizon and only about $\frac{2}{3}$ ° apart

Venus-Saturn
Conjunction

M. July 2 17:35-17:40 UT t C-8, 32, 28, 20, 15.5
sun lg 7s RSN17 T.O.F.

M. July 2 17:40-17:45 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H_α - some hints of prominences, especially on bottom edge.

M. July 2 17:40-17:45 UT
Sun in the - some hints of prominences especially on bottom edge

M. July 2 17:35-17:40 UT
Sun lg 22 KSM14

W. horizon and edge about $\frac{2}{3}$ apart
(diagram). They were about 30° above the
not seen then at that time. See
the previous night also, though I had
in the intervening days they had been close
together, namely the Venus - Saturn conjunction
was visible bright planet conjunction of the

2-M. July 2 01:40-01:45 UT
During bright twilight I observed the closest
tail

2. June 30 19:10-19:15 UT
Sun in the - some hints of small sharp prominences on
the lower half of the disk

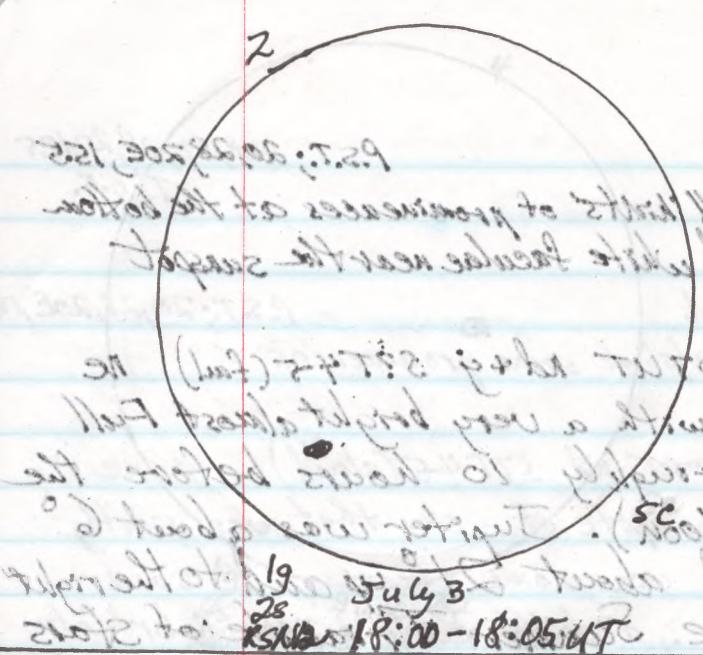
2. June 30 19:00-19:05 UT
Sun lg 22 KSM14

W. and Arcturus was high in the W.
were high in the E. The Big Dipper was in the

from Arcturus and about 20° to the right
from the moon. The
moment of Full Moon). Jupiter was about 6°
Moon in the SE (roughly 10 hours before the
I directly observed with a very bright (last Full
03:05-03:10 UT July 2 (last) 19

2. June 29 17:40-17:45 UT
Sun in the - only small hints of prominences at the bottom
half of the sun, and white faculae near the equator

2. June 29 17:40-17:45 UT
Sun in the - only small hints of prominences at the bottom
half of the sun, and white faculae near the equator



2007 M.-T. July 2-3 02:45-03:30 UT y twl except last 4 min ne; 18X50ISB
ne: With astronomical twilight ending at 03:26 UT,
my session was in twilight except for the last 4
minutes and for the last 1/2 hour of the
session a bright glow from the rising gibbous moon
was seen in the SE. Moonrise was at 02:47 UT
Jupiter was very bright in the S. and other
bright stars of summer were seen. Venus
had been seen earlier

18X50ISB: M4, M13, M92, M11 and R. Scuti, M16, M17,
M18, M26, M8, M20, M21, M23, M24, IC4665,
Barnard's Star and its area, NGC 6633,
area of M107, area of the asteroid Vesta
and probably the asteroid though I was not
sure at the time of having seen it.

Tu. July 3 18:00-18:05 UT t C-8, 32, 28, 20, 15.5
Sun 1g 2s RSN12 T.O.F.

Tu. July 3 18:10-18:15 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx - some 'hints' of small, sharp prominences

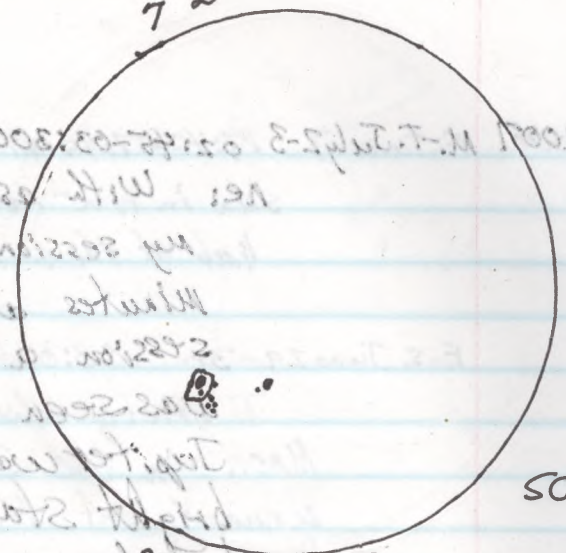
Th.-F. July 5-6 03:15-03:20 UT nd twl (near end; 56T7 some ^{cloud}) ne
I observed the stars of summer and bright
Jupiter in the S.

F.-S. July 6-7 03:30-03:45 UT y s? T4-5 (cloud/haze) ae; 18X50ISB
ne: I observed briefly seeing some stars of summer
and Jupiter in the S., but there was considerable
cloud and haze

18X50ISB: Jupiter and 3 of its moons, M4, M19, M62,
M13, M92, M22.

M.-T. July 9-10 02:55-04:05 UT y S7T2-79.5! ne; 18X50ISB
ne: At the beginning of the session and for 20 minutes

72



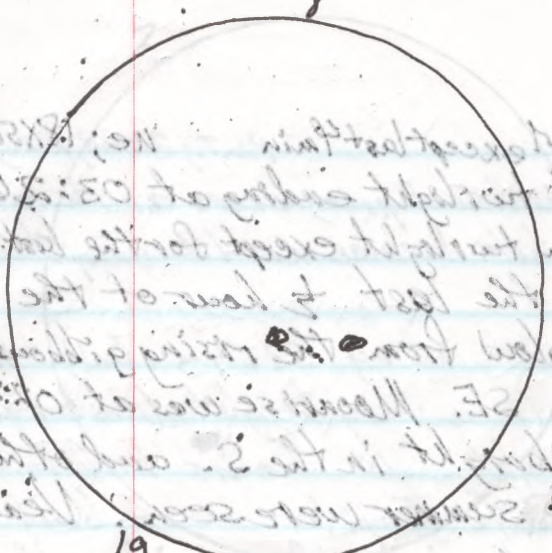
SC.

July 15
16:15 - 18:20 UT

29
95
RSV189

My session was in twilight except for the last 4 minutes and for the last 1/2 hour of the session a bright glow from the rising gibbous moon was seen in the SE. Moonrise was at 02:47 UT. Jupiter was very bright in the S. and other bright stars of summer were seen.

8



SC

July 12
17:00 - 17:05 UT

19
85
RSN18

My session was in twilight except for the last 4 minutes and for the last 1/2 hour of the session a bright glow from the rising gibbous moon was seen in the SE. Moonrise was at 02:47 UT. Jupiter was very bright in the S. and other bright stars of summer were seen.

Tue July 3 16:00-18:00 UT
Sun in the S. some birds of small sharp prominence

Tue July 3 18:10-18:15 UT

Tue July 3 18:10-18:15 UT
Sun in the S. some birds of small sharp prominence

Tue July 3 03:15-03:20 UT
Jupiter in the S. I observed the stars of summer and bright

Jupiter in the S. I observed the stars of summer and bright

Fri July 6 03:30-03:45 UT
Jupiter in the S. I observed the stars of summer

Fri July 6 03:30-03:45 UT
Jupiter in the S. I observed the stars of summer

Fri July 6 03:30-03:45 UT
Jupiter in the S. I observed the stars of summer

Fri July 6 03:30-03:45 UT
Jupiter in the S. I observed the stars of summer

Fri July 6 03:30-03:45 UT
Jupiter in the S. I observed the stars of summer

2007

or more the sky was very cloudy with extremely poor seeing, but gradually it cleared and became very transparent - a magnificent transformation - revealing the stars of summer and the Summer Milky Way. Jupiter was bright in the S.

18x50LSb: M4, M80, Jupiter and 4 moons, M107, M9, M19, M62, area of Pluto M8, M20, M21, M22, M28, Millard R Scuti, M26, M16, M17, M18, M23, M24, M25, M27, M57, Col 299, M71, M5, M15, β Cyg, R Cor Bor, T Cor Bor, Barnard's Star and area, NGC 6633, NGC 7789.

W-Th July 11-12 03:50-04:50 UT YS?T9 ne; 18x50LSb ne: stars of summer, Jupiter in the S.

18x50LSb: area in Aquilae of the upcoming occultation by the asteroid Heurietta of a star slightly N of ϵ 46 Aquilae (See MSA1243); Comet C/2006

Comet C/2006 VZ 13 (LINEAR)

VZ 13 (LINEAR) at about mag. 9.9 at approx. R.A.: $15^h 36^m$; Dec $+60^\circ 5'$ (See 451.), M6, M7, Millard R Scuti, M26, M16, M17, M18, M8, M20, M21, M22, M23, M24, M25, M28, M5, M15, M13, M92, M110, M51, M57, M81, M82, M2, M31, M32, M101, M9, M107, Keble's Cascade, Keble 2.

30 Messier objects

Th. July 12 17:00-17:05 UT t C-8, 32, 28, 20, 15.5
Sun 19 8s RSN18

Th July 12 17:10-17:15 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H α - some hints of prominences on bottom limb.

Su. July 15 18:15-18:20 UT t C-8, 32, 28, 20, 15.5
Sun 29 9s RSN29 T.O.F.

Su. July 15 18:30-18:35 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H α - Only some "hints" of prominences

Occultation:

Asteroid: 225 Henrietta

d.: 120km (0.105")

dist: 1.5800 AU

Δ 2.1 mag, < 15 seconds

Star: TYC 1065-00745-1

R.A.: 19 42 59.1731

Dec.: +12 49 41.027

mag.: 10.6

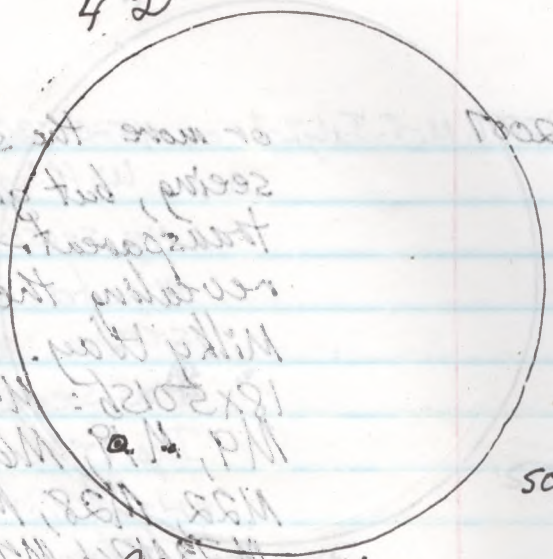
about $\frac{1}{2}^\circ$
of
4th Aquilae
4th N. of Altair

Path width: 143 km

R: 99%

see MSA 1243

42



29
65
RSNAG

July 16
17:25-17:30 UT

W. - Fr. July 11-12 03:20-04:20 UT
we start of summer, Jupiter in the S.
R.A. 12 32. Dec +60. (see N21.)
V5 13 (LINEAR) at about mag. 9.9 at approx.
the Aquilae (see MSA 1243). Const C/2006
by the asteroid Henrietta of a star slightly N of
over in Aquilae of the upcoming occultation
we start of summer, Jupiter in the S.

W. - Fr. July 11-12 03:20-04:20 UT
we start of summer, Jupiter in the S.
R.A. 12 32. Dec +60. (see N21.)
V5 13 (LINEAR) at about mag. 9.9 at approx.
the Aquilae (see MSA 1243). Const C/2006
by the asteroid Henrietta of a star slightly N of
over in Aquilae of the upcoming occultation
we start of summer, Jupiter in the S.

W. - Fr. July 11-12 03:20-04:20 UT
we start of summer, Jupiter in the S.
R.A. 12 32. Dec +60. (see N21.)
V5 13 (LINEAR) at about mag. 9.9 at approx.
the Aquilae (see MSA 1243). Const C/2006
by the asteroid Henrietta of a star slightly N of
over in Aquilae of the upcoming occultation
we start of summer, Jupiter in the S.

W. - Fr. July 11-12 03:20-04:20 UT
we start of summer, Jupiter in the S.
R.A. 12 32. Dec +60. (see N21.)
V5 13 (LINEAR) at about mag. 9.9 at approx.
the Aquilae (see MSA 1243). Const C/2006
by the asteroid Henrietta of a star slightly N of
over in Aquilae of the upcoming occultation
we start of summer, Jupiter in the S.

2007 S-M. July 15-16 02:20-05:00 UT 00 S? T9 ne 18x50lsb 20x100; C-14, 32

we: stars of summer, Jupiter in the S.

18x50lsb: M1 and R Scuti, M16, M17, M18, M23, M24, M25, M10, M12, M107, Jupiter and 3 moons.

20x100b: M1 and R Scuti, M16, M17, M18, M23, M24, M25, M26, M22, M28, M8, M20, M21, M107, M9, M4, M80, M9, M19, M62, area of Pluto, area of the star that was to be occulted by the asteroid 225 Henrietta.

successful observation:
occultation
of a star in
Aquila by
225 Henrietta

C-14, 32: Jupiter and 3 of its Galilean moons, the star to be occulted by the asteroid 225 Henrietta. I waited until about the time predicted for the occultation, then I observed the star steadily until I saw the 2 magnitude drop in brightness which virtually made the star disappear for about 12 seconds. My extrapolation from approximate "end time" gave me the following times

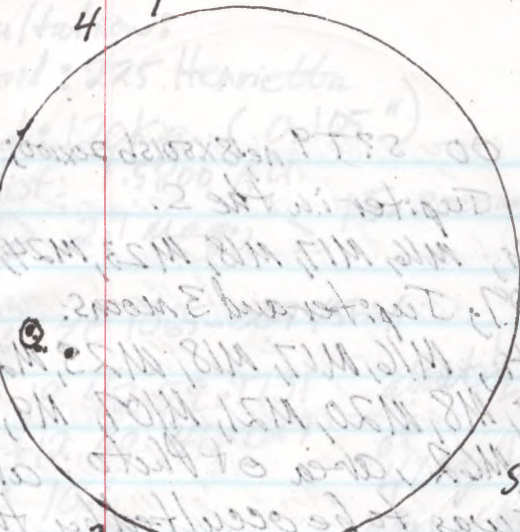
- "Beginning of event: 04:45:47 UT"
- "End of event: 04:45:59 UT"
- "Duration: 12 seconds"

Prior to the event the path was predicted to cross North America from East to West with my location being very near the southern limit of the path. I was concerned that if it shifted northward, I might not see the event. Obviously that did not happen. (See predictions on opposite page.)

M. July 16 17:25-17:30 UT t C-8, 32, 28, 20, 15.5
Sun 29 6s RSN26 T.O.F.

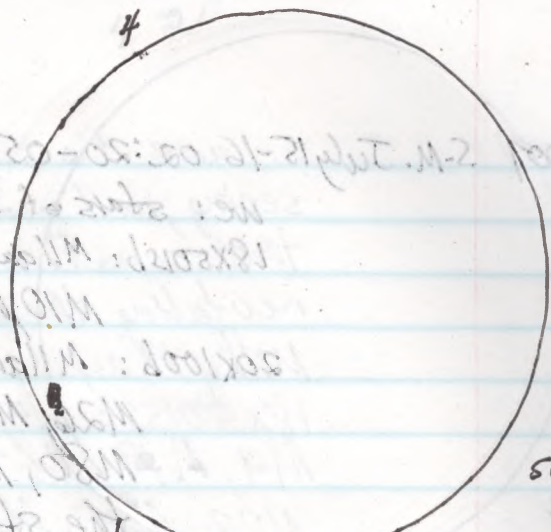
M. July 16 17:35-17:40 nd P.S.T.; 20, 28, 20E, 15.5
Sun in H_α - only some "hints" of prominences

4

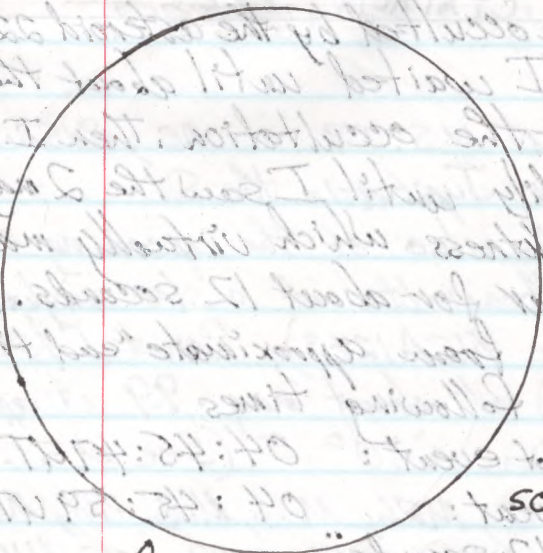


55 July 17
RSN 25 17:20-17:25 UT

4



79
45 July 18
RSN 14 18:10-18:15 UT



09
05 July 21
RSN 0 17:45-17:50 UT

with my location being very near the
southern limit of the belt. I was concerned
that it shifted westward, I might not
see the event. Obviously that did not
happen. (See predictions on opposite page.)

M. July 16 17:35-17:30 UT
Sun: 59% RSN 30

M. July 16 17:35-17:40 UT
Sun: 44% - only some "bits" of prominence

2007 M-F. July 16-17 04:10-04:50 UT y S7T9 ne; 18x50isb
ne: stars of summer; 2 Perseids

18x50isb: M16, M17, M18, M23, M24, M25, M8, M20,
M21, M22, M28, M10, M12, M27, M71,
M15, M2, NGC663, Kemble's Cascade,
Kemble 2, M31, M32, M110.

Tu. July 17 17:20-17:25 UT t 52 C-8, 32, 28, 20, 15.5
sun 2g 5s RSN 25 T.O.F.

Tu. July 17 17:25-17:30 UT ad P.S.T.; 20, 28, 20E, 15.5
sun in H α - only "hints" of prominences on the disk

W. July 18 18:10-18:15 UT C-8, 32, 28, 20, 15.5
sun 1g 4s RSN 14 T.O.F.

W. July 18 18:15-18:20 UT P.S.T.; 20, 28, 20E, 15.5
sun in H α - only slight "hints" of prominences on the disk

Sa. July 21 17:45-17:50 UT t 52 C-8, 32, 28, 20, 15.5
sun 0g 0s RSN 0 T.O.F.

Sa. July 21 17:50-17:55 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - only slight "hints" of prominences on the disk.

Sa-Sun July 21-22 03:50-05:20 UT y S8T9-9.5 ne; 18x50isb

ne: stars of summer, meteor in the N. about mag. 0.

18x50isb: M3, C/2006 VZ 13 (LINEAR) about 2.5°

Comet
(C/2006 VZ 13)

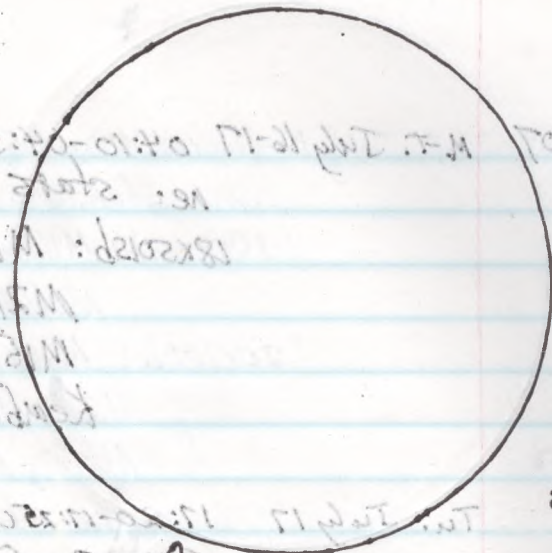
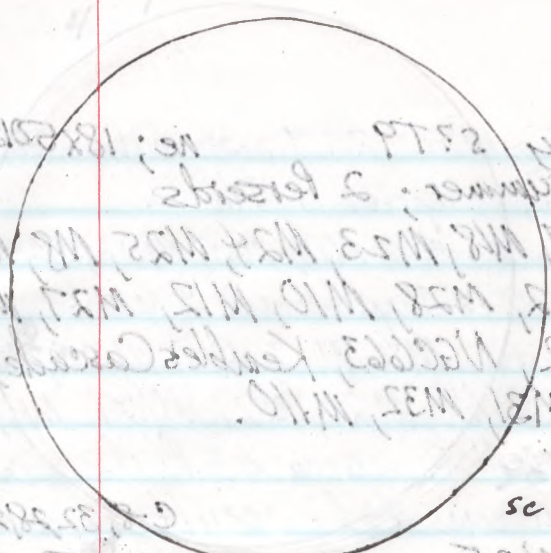
From M3 - little or no tail visible in the
binoculars, M11 and R Scuti, M26, M16, M17, M18,

M23, M24, M25, M22, M28, M13, M92, M12,

M15, M81, M82, M51, M101, IC4665, Barnard's

Star, NGC 6633, NGC 7789, NGC 663, Double

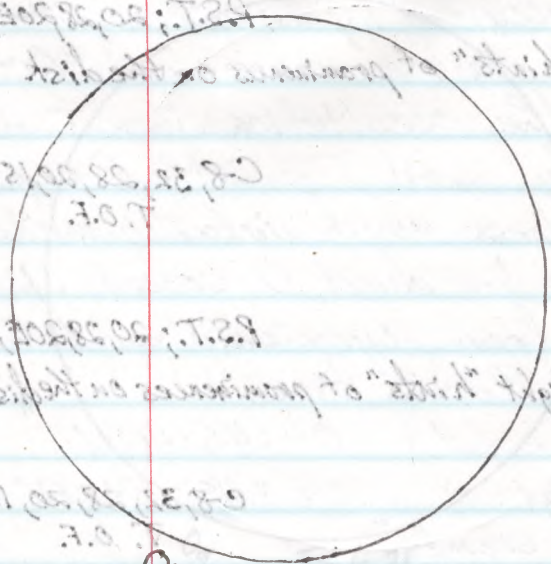
Cluster in Perseus and Stock 2, Kemble's Cascade,



09
05
RSNO 17:05-17:10 UT

09
05
RSNO 18:30-18:35 UT

5c.



09
05
RSNO 17:25-17:30 UT

Cluster in pressure and shock; Kambles Carols
Start the (633 Neg 1789 Nagesa3, Double
M12, M81, M82, M51, M101, Kambles, Barnard
M33, M34, M35, M36, M37, M38, M39, M40, M41, M42
Procedure: Will use Kambles, M35, M40, M41, M42
from M3. Little or no tail visible in the
Kambles: M3, C1300 V213 (LINEAR) about 2.5°
NE: Stars of summer, meteor in the N. about mag. 0.
NE: Star July 21-22 03:20-03:25 UT y 2879-2

Correct
(C1300 V213)

2007.

Keable 2, M31, M32, M110, M33, area of Uranus in
Aquarius, area of Neptune in Capricornus.

Su. July 22 17:05-17:10 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSN O T.O.F.

Su. July 22 17:10-17:15 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hd - numerous hints of prominences around the disk.

S. July 22-23 03:55-05:05 UT y S? T9 (esp. in S) (some clouds) ne; 18x50isb
mc: stars of summer

Comet
C/2006 VZ 13
(LINEAR)
near M3

18x50isb: area of Uranus in Aquarius, area of
Neptune in Capricornus, M3, C/2006 VZ 13 E
(LINEAR) a comet about 1 degree or less
from M3, M10, M12, M14, M1 and RScuti,
M16, M17, M18, M8, M22, M20, M21, M23, M24,
M25, M15, M13, M62, M81, M82, Keable's
Cascade, Keable 2, M31, M32, M33, M110, area
of α Her and α Oph, Barnard's Star and
area, NGC 752, NGC 7789, NGC 663 in Cassiopeia,
NGC 6633 in Oph, Double Cluster and Stock 2,
IC 4665

M. July 23 18:30-18:35 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSN O hazy conditions; cirrus cloud. T.O.F.

M. July 23 18:35-18:40 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hd - some hints of prominences; hazy conditions

W. July 25 17:25-17:30 UT C-8, 32, 28, 20, 15.5
sun Og Os RSN O T.O.F.

W. July 25 17:35-17:40 UT P.S.T.; 20, 28, 20E, 15.5
sun in Hd - only slight hints of prominences

July 26
16:55-17:00 UT
RSNO
SC

July 27
16:30-16:35 UT
RSNO
SC

July 30
17:20-17:25 UT
RSNO
SC

July 31
18:15-18:20 UT
RSNO
SC

Aug 1
17:20-17:25 UT
RSNO
SC

Aug 1
17:32-17:40 UT
RSNO
SC

Vertical text on the far left margin, possibly a date or page number.

Vertical text on the far right margin, possibly a date or page number.

Th. July 26 16:55-17:00 UT t
sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

Th. July 26 17:00-17:05 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in H α - one definite small prominence at the 7 o'clock position on the disk and some other hints of prominences

02 F. July 27 16:30-16:35 UT t

C-8, 32, 28, 20, 15.5

sun Og Os RSNO

T.O.F.

F. July 27 16:35-16:40 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in H α - only hints of small prominences

M. July 30 17:20-17:25 UT t
sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

M. July 30 17:25-17:30 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in H α - no definite prominences, but some slight "hints" of prominences.

Tu. July 31 18:15-18:20 UT t
sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

Tu. July 31 18:20-18:25 UT nd

P.S.T.; 20, 28

sun in H α - only "hints" of some prominences

W. Aug. 1 17:20-17:25 UT t
sun Og Os RSNO

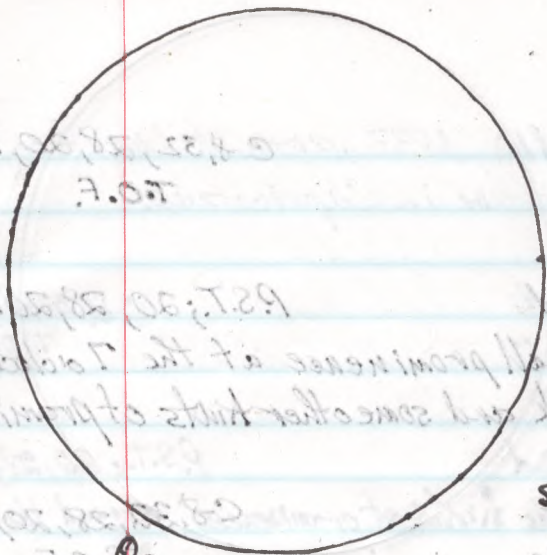
C-8, 32, 28, 20, 15.5
T.O.F.

W. Aug. 1 17:25-17:30 UT nd

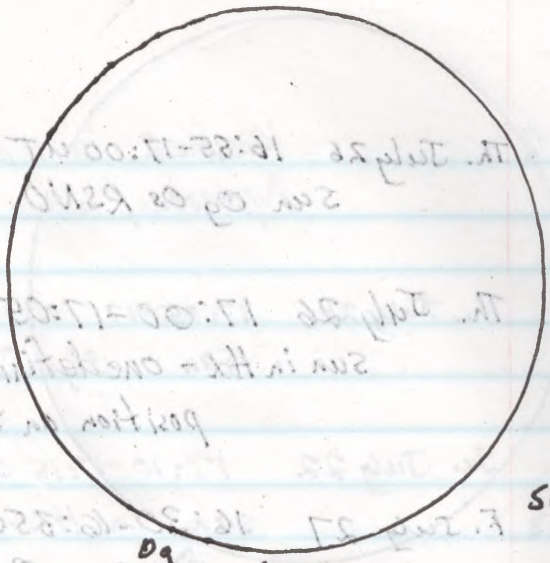
P.S.T.; 20, 28, 20E, 15.5

sun in H α - only some hints of prominences on the disk.

W-Th. Aug. 1-2 01:30-02:45 UT y twl and afternoon rise ne; 18X5015b
ne: During twilight I observed as stars came into



Aug 2
RSNO 17:30-17:35 UT



Aug 3
RSNO 17:05-17:10 UT

M. Aug 30 17:20-17:30 UT
sun in Hx - no definite prominences, but some slight "kink" of prominences.
T.O.F.
RSNO 17:20-17:25 UT

M. Aug 30 17:30-17:40 UT
sun in Hx - only hint of small prominences
T.O.F.
RSNO 17:30-17:35 UT

M. Aug 31 17:25-17:30 UT
sun in Hx - only some kink of prominences on the disk.
T.O.F.
RSNO 17:25-17:30 UT

M. Aug 31 17:30-17:40 UT
sun in Hx - only "kink" of some prominences
T.O.F.
RSNO 17:30-17:35 UT

view. Sunset had been at 00:33 UT, and the moon rose at 01:58 UT. I continued to observe for about another $\frac{3}{4}$ of an hour. The end of astronomical twilight was at 02:39 UT, just a few minutes before I stopped observing. I thought I might see some Perseid Meteors, but did not knowingly see any. Jupiter was bright in the S.

18X50156: Jupiter and at least 3 of its Galilean moons; M11 and R Scuti, M26, M22, M8, area of M107, area of α and β Capricorni, M10, M12, Areas of R Cor Bor and T Cor Bor, but not sure of seeing either of them - perhaps not seeing T because of sky brightness after moonrise and perhaps R was at the dimmer part of its cycle.

Th. Aug. 2 17:30-17:35 UT t C-8, 32, 28, 20, 15.5
Sun O9 O5 RSNO T.O.F.

Th. Aug. 2 17:40-17:45 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H α - some 'kinks' of prominences on the disk.

Th.-F. Aug. 2-3 02:30-03:15 UT y twl; S? T5-73 (haze, ml; some) cloud 18X50156
ne; 1
ne: some stars of summer and Jupiter in the S.;

After the end of astronomical twilight the haze persisted and clouds increased and transparency decreased. One bright meteor was seen.

18X50156: Jupiter and 2 of its moons; M11 and R Scuti, area of R Cor Bor, but the star was not knowingly seen, since it may have been near minimum brightness.

F. Aug. 3 17:05-17:10 UT t C-8, 32, 28, 20, 15.5
Sun O9 O5 RSNO T.O.F.

view. Sunset had been at 00:33 UT, and the moon
 rose at 01:58 UT. I continued to observe
 for about another 1/2 of an hour. The end
 of astronomical twilight was at 02:30 UT just
 a few minutes before I stopped observing.
 I thought I might see some period of
 but did not know for sure. Jupiter was bright
 in the 2.

18x50: Jupiter and of least of its Galilean
 moons: Mimas, R 2005-8-18: 45-50 UT
 19/15 Aug. 4

of M101 core of R and R Capricorn, M10,
 M12, M13, M14, M15, M16, M17, M18, M19, M20,
 not sure of seeing either of them - perhaps
 not seeing T because of sky brightness after sunrise
 and perhaps R was at the dinner part of its
 cycle.

Tr. Aug. 2 17:30-17:35 UT
 Sun 09 02 RND

Tr. Aug. 2 17:40-17:45 UT
 Sun in the - some bits of prominences on the disk.
 RST: 2028 203 122

Tr. Aug. 3 02:30-03:12 UT
 us: some stars of gamma and Delta in the 2.
 After the end of astronomical twilight the haze
 persisted and clouds increased and transparency
 decreased. The night was very clear.
 18x50: Jupiter and 2 of its moons: M10 and R 2005-8-18
 core of R Capricorn, but the star was not
 sufficiently seen since it may have been near
 minimum brightness.

Tr. Aug. 3 17:05-17:10 UT
 Sun 09 02 RND
 T.O.F. 2028 203 122

2007 F. Aug. 3 17:10-17:15 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in H α - only hints of prominences on the disk.

F.-S. Aug. 3-4 02:10-03:15 UT y 5?T9.5! (before moonrise) ne; 18X5015b
ne: stars of summer; Jupiter in the S. Conditions were superb! Transparency was excellent until moonrise. End of astronomical twilight was at 2:35 UT and moonrise was at 2:39 UT - only 4 minutes later. However, before the end of twilight conditions were excellent.

J. PWA
T000:91-28:81

18X5015b: M11 and R Scuti, M16, M17, M18, M6, M7, M8, M20, M21, M23, M24, M25, M22, M28, M69 in the Teapot of Sagittarius, M13, M92, M57, M27, M71, M39, M5, M10, M12, M14, IC 4665, Barnard's Star, NGC 6633, M15, M2, M81, M82, M3, M101, M51, M31, M32, M110, Stock 2, NGC 663, M103, Keble's Cascade, Keble 2, M4, M80, M107, M9, area of α Oph and α Her, T Cor Bor, area of R Cor Bor though the star was probably too faint in its cycle to be seen.

40 Messier objects.

Sa. Aug. 4 18:45-18:50 UT t

C-8, 32, 28, 20, 15.5

Sun 19 16 RSN11

J.O.F.

Sa. Aug. 4 18:55-19:00 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in H α - definite hints of small prominences on the disk

Sa.-Su. Aug. 4-5 02:35-03:50 UT y 5?T9 (until moonrise) ne; 18X5015b

ne: stars of summer; Jupiter in the S. Excellent transparency until the moon rose at 03:02 UT; after that the sky was more and more washed out

18X5015b: M11 and R Scuti, M26, M16, M17, M18, M8,

1
 17:10-18:20 UT
 RSN12
 17:20-17:25 UT
 19
 15

2
 18:55-19:00 UT
 RSN12
 19
 28

18:55-19:00 UT
 RSN12
 19
 28

18:55-19:00 UT
 RSN12
 19
 28

18:55-19:00 UT
 RSN12
 19
 28

18:55-19:00 UT
 RSN12
 19
 28

2007

M20, M21, M23, M24, M25, M28, M22, M69, M70
 in Sagittarius, M10, M11, M14, M2, M15, M31, M32,
 M10, M13, M92, M81, M82, M3, M101, M51, M103,
 NGC 663 and NGC 654 in Cassiopeia, T Cor Bor,
 area of R Cor Bor; but star was not seen with
 certainty, perhaps being at, or near, minimum,
 Barnard's Star, NGC 6633, IC 4665, area of α Oph
 and α Her.

ph: photographed various areas of the sky in 20-sec.
 exposures.

Sa. Aug. 5 17:20-17:25 UT t C-8, 32, 28, 20, 15.5
 Sun lg 15 RSN11 T.O.F.

Sa. Aug. 5 17:25-17:30 UT y P.S.T.; 20, 28, 20E, 15.5
 Sun in Hx - only few "hints" of small prominences on the disk

S.-M. Aug. 5-6 01:55-02:20 UT y S?T1 (cloud) ne
 When I tried to observe, I found it almost overcast
 with Jupiter and the Summer Triangle and Arcturus
 and some other bright stars occasionally peaking
 through the clouds.

M. Aug 6 18:55-19:00 UT t C-8, 32, 28, 20, 15.5
 Sun lg 25 RSN12 T.O.F.

M. Aug. 6 19:00-19:05 UT nd P.S.T.; 20, 28, 20E, 15.5
 Sun in Hx - hints of small prominences on the solar disk.

M.-T. Aug. 6-7 03:00-04:20 UT y S?T1-8.5 (cleared) ne; 18X50LSb
 ne: stars of summer; 1 Perseid meteor. Early
 in the session, the sky was very cloudy. After a
 while it cleared and transparency was good.
 18X50LSb: Uranus in Aquarius, between γ 96 Aquarii

Uranus,

18:20:15: Uranus in Aquarius, between Polaris & Polaris; in the sector, the sky was very cloudy. After a while it cleared and transparency was good. No stars of summer; 1 found in winter. Early 18:20:15 (cloud) no; 18:20:15

M. Aug. 6 19:00-19:05: Uranus in the line of small prominence on the solar disk. 18:20:15

M. Aug. 6 18:22-19:00 UT. Sun 19:22 18:22

Through the clouds. and some other bright stars occasionally peeping with Jupiter and the summer triangle and Arcturus. When I tried to draw, I found it almost overcast. 2. Mr. Aug. 6 01:22-02:20 UT. 2.37 (cloud)

Sun in the strip for a link of small prominence on the disk. 2. Mr. Aug. 5 17:22-17:30 UT. Sun 19:22

2. Mr. Aug. 5 17:22-17:30 UT. Sun 19:22

and in Hor.

2. Mr. Aug. 5 18:00-18:05 UT. 18:00-18:05

Photographs various exposures. 2. Mr. Aug. 5 18:00-18:05 UT. 18:00-18:05

2. Mr. Aug. 5 18:00-18:05 UT. 18:00-18:05

Bartholin's Star, magnitude 10.6, was at 6:00. Point of contact between star and Cassiopeia, T. Corbin, was at 6:00. Star was not seen with

2007

MR. W. M. 18:00-18:05 UT. 18:00-18:05

2007

and
Neptune.

and ϕ Aquarii (U304); Neptune (U300 and 301)
 NW of the star γ Capricorni, M11 and R Scuti,
 M26, carefully examined some areas of Scutum
 and observed NGC 6664 near α Scuti, and also
 the G.C. ^{NGC} 6712, E. of δ Scuti, M16, M17, M18,
 M23, M24, M25, M22, M28, M8, M20, M21, Barnard's
 Star, NGC 6663, area of the stars α Oph and
 α Her, T Cor Bor, area of the star R Cor Bor,
 but the star was not knowingly seen since it
 may have been at or near minimum, Keble's
 Cascade, Keble 2, Double Cluster in Perseus,
 NGC 654 and NGC 663 in Cassiopeia, M103,
 NGC 7789, M31, M32, M10, M33, M15, M2.

T.-W. Aug. 7-8 03:00-03:45 UT y s? T8-9-later cloudy ne; 18X501sb
 ne: stars of summer; Transparency about 8.5 to 9
 for most of the session. Then near the end
 of the session, the sky clouded over.

Neptune

22 Messier objects

18X501sb: Neptune in Capricornus, M11, M26, M16,
 M17, M18, M8, M20, M21, M22, M28,
 M23, M24, M25, M2, M15, M10, M12, M14,
 M13, M92, areas of Scutum including
 NGC 6664 - OC near α Scuti; ^{NGC 6612 -}
 GC near M26; M103, NGC 6663 and
 NGC 654 in Cassiopeia, NGC 7789,
 Double Cluster and Stock 2, Keble's Cascade,
 Keble 2, T Cor Bor, area of R Cor Bor
 but the star was not knowingly seen and
 it may have been at, or near, minimum,
 area of α Her and α Oph, NGC 6663,
 Barnard's Star, and area.

W. Aug. 8 18:00-18:05 UT t
 sun 19 45 RSN14

C 8, 32, 28, 20, 15.5
 T.O.F.

and 4 hours (1300);
 man of the star of
 Mrs. carefully examined some areas of star
 and observed the light from star and also
 the G.C. 215
 Mrs. Mrs. Mrs. Mrs. Mrs.
 Star, Kappa 2, area of the star
 after Tar Bo
 but the star was not known
 may have been

2007
 and
 Neptune

Aug. 9
 at 10:05:41 - 10:19:45
 25
 15N12

Cascade, Kappa 2, Double Cluster in Cassiopeia,
 NGC 54 and NGC 63 in Cassiopeia, M103,
 NGC 718, M13, M2, M10, M3, M5, M7, M8,

T. W. Aug. 7-8 03:00-03:45 UT y 2 578-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
 No: stars of summer: transparent about 8.5 to 9
 for rest of the season. Then towards end
 of the season, the sky clouded over.

Neptune
 25 Messier objects

Record: Neptune in Cassiopeia, M1, M2, M3, M4, M5, M6, M7, M8, M9, M10, M11, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, including areas of star
 NGC 101 - Orion & Scorpio

Double Cluster and Stars, Kappa 2, Kappa 3
 NGC 63 in Cassiopeia, NGC 718
 Kappa 2, Tar Bo
 but the star was not known
 it may have been at or near minimum
 area of star and phi, Kappa 2
 Barnard's Star, and area.

W. Aug. 8 18:00-18:30 UT to
 Sun 19 to 20 W14
 20:30-21:30, 22:30-23:30
 T.O.F.

2007 W. Aug. 8 18:05-18:10 UT ud P.S.T.; 20, 28, 20E, 15.5
sun in H α - one definite prominence at the 5 o'clock position
seen clearly in the 15.5mm ocular; other hints
of prominences at other places on the disk

W.-Th. Aug. 8-9 02:30-05:00 UT 00 S? T 9-9.5! ne; 18x5015b; 20x100b;
ne: stars of summer, 1 or 2 Perseid meteor and 1
sporadic meteor.

18x5015b: M11, M26, M22, M23, M24, M28, M8, M20, M21,
M16, M17, M18,

Uranus
Neptune
Bas1
NGC 6704
NGC 6712

20x100b: Uranus in Aquarius, Neptune in Capricornus,
Various areas in Scutum: NGC 6704 - compact
oc about 1° N. of M11, M11, M26, Bas1 - the
OC within the trapezium near M11,
NGC 6712 - GC near M26, AC Scuti - about
1° S. of M26, NGC 6664 near α Scuti,
area of NGC 6683, but not sure of seeing
it among the star cloud of the Milky Way
in that part of Scutum; the dark
nebula B103 was easily seen. The 3
oc's Do 29, Do 30, and Do 31 could not be
distinguished clearly though I thought I
saw some hints of Do 29. They are W.
of the dark nebula B103.

B103

Bas1.

C-14, 55: I observed without the star dragons.
M11 quite spectacular; Bas1 - the OC
within the trapezium near M11.

Th. Aug. 9 19:45-19:50 UT t C-8, 32, 28, 20, 15.5
sun lg 2s RSN12

Th. Aug. 9 19:50-19:55 UT ad P.S.T.; 20, 28, 20E, 15.5
sun in H α some hints of prominences, but somewhat hazy and
cloudy conditions.

18:05-18:10 UT
 sun in the - one definite prominence at the solar center
 seen clearly in the 12.5m center; other parts
 of prominence at other places on the disk

18:05-18:10 UT
 sun in the - one definite prominence at the solar center
 seen clearly in the 12.5m center; other parts
 of prominence at other places on the disk

00:27-0:28 UT
 1 or 2 faint meteor and 1
 sporadic meteor.

00:27-0:28 UT
 1 or 2 faint meteor and 1
 sporadic meteor.

19/5
 Aug 10 18:00-18:45 UT
 RSN 11

19/5
 Aug 11 17:25-17:30 UT
 RSN 11

18:05-18:10 UT
 sun in the - one definite prominence at the solar center
 seen clearly in the 12.5m center; other parts
 of prominence at other places on the disk

18:05-18:10 UT
 sun in the - one definite prominence at the solar center
 seen clearly in the 12.5m center; other parts
 of prominence at other places on the disk

19:20-19:25 UT
 sun in the some bits of prominence, but somewhat faint and
 cloudy conditions.

19:20-19:25 UT
 sun in the some bits of prominence, but somewhat faint and
 cloudy conditions.

2007 F. Aug. 10 18:40-18:45 UT + C-8, 32, 28, 20, 15.5
sun 1g 1s RSN11 - back to 1 spot! T.O.F.

F. Aug. 10 18:45-18:50 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx - some hints of prominences on the disk.

F.-S. Aug. 10-11 03:30-05:05 UT, y S?T9.5! ne; 18x5015b
ne: With excellent transparency I observed at a
time of increasing activity from the Perseid
Meteor Shower. Besides the stars of summer,
I saw 2 bright perseids and 3 sporadic
meteors

Uranus
Neptune

18X5015b: Uranus in Aquarius; Neptune in Capricornus;
I was about 98% sure that I was
able to see the recently-discovered
Nova in Vulpecula. It had been discovered
on August 8th by Hiroshi Abe at R.A.:
19^h 54^m 24.64^s; Dec.: +20° 52' 51.9"
It may have been about mag. 8 to 8.5.
(See U/61.); also M16, M17, M18, M24, M25,
M22, M28, M11 and R Scuti and area;
M13, M92, area of α Her and α Oph;
IC4665, Barnard's Star and area, Taurus
Pontowski, NGC 6633, T Cor Bor, area of
R Cor Bor which was faint, probably too
faint to be seen, M81, M82, Kemble's
Cascade, μ Cep - the Garnet Star and the
area around it, M31, M32, M110, M33, M2,
M15, Levy 53 (NGC 752 in Andromeda),
Double Cluster, Stock 2, Kemble 2.

S. Aug. 11 17:25-17:30 UT C-8, 32, 28, 20, 15.5
sun 1g 1s RSN11 - one small spot seen with difficulty T.O.F.

S. Aug. 11 17:35-17:40 UT P.S.T.; 20, 28, 20E, 15.5
sun in Hx - one small prominence at 4 o'clock position; hints of prominences
elsewhere.

2001 F. Aug. 10

18:40-18:50: vent & see 19/12 R2M11 - back to layout!

F. Aug. 10

18:45-18:50: 20NT M4 see in Hx - some trace of prominences on the disk.

F. 2 Aug 10-11

08:30-08:50: 20NT M4 see: With excellent transparency I observed a

Aug 12 16:25-16:30 UT

I saw 2 bright faculae and 3 sporadic

Meteors

18X50SD: Windows in Aquarius; Neptunus in Capricorn. I was about 98 to sure that I was

able to see the recently-discovered Nova in Lupulus. It had been discovered

on August 8th by Hiroshi Abet at R.A. 19h 54m 24.4s; Dec: +50° 52' 51.4". It may have been about mag. 8 to 8.5.

(See W. 61.); also M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100.

M13, M14, area of α Her and δ Ori; large Barnard's Star and other stars

Portinari, NGC 633, Trumpler area of R Carbor which was faint probably too

faint to be seen. M81, M82, Kowalev's Cascade, α Cap-the Garnet Star and the

area around it, M31, M32, M110, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100.

M15, γ Cas 23 (NGC 752 in Aquarius), Double Cluster, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100.

2 Aug. 11

17:25-17:30: see 19/12 R2M11 - one small spot seen with difficulty

2 Aug. 11

17:32-17:40: see in Hx - one small prominence at Helix position; back of prominences on the disk.

2 Aug. 11 17:32-17:40: see in Hx - one small prominence at Helix position; back of prominences on the disk.

2 Aug. 11 17:32-17:40: see in Hx - one small prominence at Helix position; back of prominences on the disk.

2007 S.-S. Aug. 11-12 03:05-04:15 UT S3T9 (occasional cloud) ne; 18X5018b
ne: stars of summer; 3 Perseid meteors including
one of mag. -5 near Polaris at 03:54 UT.

(The transparency was very good, but occasional
clouds were present in parts of the sky.)

18X5018b: Uranus, Neptune, M2, M15, M11, M26,
M28, M6, M17, M18, M22, M8, M20, M21,
M31, M32, M110, M33, M103, NGC 663 and
nearby NGC 654, Double Cluster in Perseus,
Stock 2, area of the reported nova in
Vulpecula, and again 98% sure of
seeing it, as on the previous evening,
Kemble's Cascade, Kable 2, M31, M32,
M33, M110, T Cor Bor, area of R Cor Bor,
but the star was not seen with certainty.

area of
reported nova in
Vulpecula

Su. Aug. 12 16:25-16:30 UT C-8, 32, 28, 20, 15.5
Sun O₉ O₃ RSN The group has disappeared T.O.F.

Su. Aug. 12 16:30-16:35 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α some hints of prominences around the solar disk.

S.-M. Aug. 12-13 01:00-06:40 UT y S8T Varied: upto 9) ne

I observed the peak of the Perseid Meteor Shower
along with 5 other members of the Kingston Centre
and after having them for a barbecue at my place.
John and Peggy Hurley and Kevin Kell and Kim
Hay and Ken Kingdon came for the board
the observing session. Kevin, Kim and Peggy left
about midnight (04:00 UT). John had left
before that because he had to go to work at
about 3:30 a.m. E.D.T.. Ken stayed until about
3:00 a.m. (6:00 UT).

Perseid
Meteor
Observing
Group
Session

The weather was not perfect since there were

2
Group
Observer
Meteor
Parent

The weather was not perfect since there were
 about 3:30 a.m. (6:00 UT).
 before that because he had to go to work at
 about midnight (04:00 UT). John had left
 the observing session. Kevin, Kim and Pegg left
 Hay and her kinders came for the program
 John and Pegg, Harley and Kevin, Roll and Kim
 and after having them for a barbecue at rhyllac.
 along with 2 other members of the Kingdon Centre.
 I observed the end of the Parent Meteor Shower
 on Aug 12-13 01:00-02:40 UT (28 Transits: 40%)

2-M. Aug 12-13 01:00-02:40 UT (28 Transits: 40%)
 3x. Aug 12 16:30-18:30 UT rd
 saw in H+ some kind of phenomena around the solar disk
 2x. Aug 12 16:30-18:30 UT
 saw 0p 02 km The group has disappeared T.O.F.
 C-8, 3x, 2x, 2x, 2x, 2x, 2x, 2x, 2x

but the star was not seen with certainty
 M33, M10, T Car Bar, area of R Car Bar
 near Kappa Cassiopeia, double 2, M31, M32
 not seeing it as on the previous evening
 the group and again 8:10 zone of

Stocks
 Aug 13 17:50-17:55 UT
 RSN 09
 05
 (The transparency was very good, but occasional
 clouds were present in parts of the sky.)
 one of mag 5 near planets at 03:24 UT
 no: stars of summer; 3 Parent meteor shower
 2007 2-Aug 11-15 03:00-04:15 UT 28 TP (occasional) no; 18x 2016

2007

occasional cloudy sessions throughout the observing period, but most of the cloudy sessions lasted only about 5 to 10 minutes. The radiant rose slowly from near the NE horizon. The numbers of Perseids seemed to increase over the session until we were seeing almost one every 2 minutes or more. I was facing in the ESE direction. Others faced in other directions. Kea and I were impressed by the high number of sporadic meteors and meteors from Cygnus and Aquarius. According to Ottwelles Astronomical Calendar, 4 other showers were active: Kappa Cygnids, N. Delta Aquarids, N. Iota Aquarids and S. Iota Aquarids. A good percentage of the Perseids were quite bright. At about 5:15 UT (1:15 am. E. D.T.) Kea and I saw an extremely brilliant fireball with a blue and purple train and an explosion of light - going from left to right through the bright stars of the constellation Aries. I estimated it at mag. -11! Though the weather was not perfect I regarded the event as a success and the Perseid Shower as a good one for this year.

- many sporadic

- brilliant mag. -11 fireball

M. Aug. 13 17:50-17:55 UT t C-8, 32, 28, 20, 15.5
 Sun Og Os RSNJO T.O.F.

M. Aug. 13 17:55-18:00 UT nd. S.T.; 20, 28, 20E, 15.5
 sun in HD - hints of solar prominences on the disk.

M.-T. Aug. 13-14 03:00-04:30 UT y S?T9 ne; 18x50 15b
 ne: stars of summer; 2 Perseid and other meteors.
 18x50 15b: Uranus, Neptune, M1 and R Scuti, M26, NGC 6664
 near α Scuti, AC Scuti, dark nebula B103 in
 Scutum, T Cor Bor, area of R Cor Bor, but not
 sure of seeing it - perhaps because it may be near

occasional cloudy sessions throughout the observing period, but most of the cloudy sessions lasted only about 5 to 10 minutes. The weather was steady from near the NE horizon. The number of periods seemed to increase over the session and I was seeing about one every 5 minutes or more. I was seeing in the ESE direction. Other than in other directions. For and I was impressed.

occasional cloudy sessions throughout the observing period, but most of the cloudy sessions lasted only about 5 to 10 minutes. The weather was steady from near the NE horizon. The number of periods seemed to increase over the session and I was seeing about one every 5 minutes or more. I was seeing in the ESE direction. Other than in other directions. For and I was impressed.

09 August 5
05 RSN0 17:20-17:25 UT

09 August 5
05 RSN0 17:20-17:25 UT

Stellaris Astrometric Catalog, 7 other stars were active: Kapteik, U. Delta Aquaris, U. Iota Aquaris and S. Iota Aquaris. A good number of the periods were quite bright. At about 2:12 UT (1:15 am E.S.T.) Ken and I saw an extremely brilliant fireball with a blue and purple train and an explosion of light - going from left to right through the bright stars of the constellation Aries. I estimated it at mag. -11! Though the weather was not perfect I regarded the event as a success and the period shown as a good one for this year.

Stellaris Astrometric Catalog, 7 other stars were active: Kapteik, U. Delta Aquaris, U. Iota Aquaris and S. Iota Aquaris. A good number of the periods were quite bright. At about 2:12 UT (1:15 am E.S.T.) Ken and I saw an extremely brilliant fireball with a blue and purple train and an explosion of light - going from left to right through the bright stars of the constellation Aries. I estimated it at mag. -11! Though the weather was not perfect I regarded the event as a success and the period shown as a good one for this year.

08-33 28-201-2
T.C.F.

08-33 28-201-2
T.C.F.

M. Aug. 13 17:25-18:00 UT
seen in the - hints of solar prominence on the disk.
M. T. Aug. 13-14 03:00-04:30 UT
No. stars of summer: 5 periods and other meteors.
near S. Scuti, AC Scuti, dark nebula B103 in
Southern, T. Car. Bar, area of R. Car. Bar, but not
sure of seeing it - perhaps because it may be near

M. Aug. 13 17:25-18:00 UT
seen in the - hints of solar prominence on the disk.
M. T. Aug. 13-14 03:00-04:30 UT
No. stars of summer: 5 periods and other meteors.
near S. Scuti, AC Scuti, dark nebula B103 in
Southern, T. Car. Bar, area of R. Car. Bar, but not
sure of seeing it - perhaps because it may be near

2007

minimum, area of α Her and α Oph, IC 4665, Bernard's Star and its area, NGC 6633, Keble's Cascade, Kemble 2, M31, M32, M110, M33, M2, M15, M16, M17, M18, M24, M25, M22, M28, area of the nova discovered in Vulpecula. (I thought it appeared to have changed little, if any, since I last saw it.)

Tu. Aug. 14 18:00-18:05 UT t
Sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

Tu. Aug. 14 18:05-18:10 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in HD - hints of prominences on the solar disk.

Th-F Aug. 14-15 18:00-01:30 UT on Bob's Lake ^{Muslim Camp} overcast ne

-Fred Barrett and I went to the Muslim Camp on Long Bay on Bob's Lake to do an Astronomy presentation and have an observing session if weather permitted. He took his C-8 and I took the Astroscan and some slides. At about 23:30 UT (7:30 p.m. E.D.T.) I gave the talk about what could be seen in the August sky and about some of the Arab contributions to astronomy. After they had their prayers, some of the children came out to observe, but it was cloudy. We waited for a while, but they called off the session because of the cloudy conditions. Fred and I packed up and came home.

W. Aug. 15 17:20-17:25 UT t
Sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T.O.F.

W. Aug. 15 17:25-17:30 UT nd

P.S.T.; 20, 28, 20E, 15.5

Sun in HD - hints of prominences on the solar disk.

W-Th. Aug. 15-16 02:00-03:15 00 S?T8 \rightarrow poor ne; 20x100b

ne: Jupiter in the S; stars of summer. The transparency

Minimum, one of the other...
out its area...
M3, M3, M3, M3, M3, M3, M3, M3
M3, M3, M3, M3, M3, M3, M3, M3
(I thought it appeared to have changed little if
any since I last saw it.)

Minimum, one of the other...
out its area...
M3, M3, M3, M3, M3, M3, M3, M3
M3, M3, M3, M3, M3, M3, M3, M3
(I thought it appeared to have changed little if
any since I last saw it.)

09
05
Aug. 16
RNO 18:20-18:25 UT

09
05
Aug. 18
RNO 18:15-18:20 UT

At about 23:30 UT (7:30 p.m. EDT) I gave the talk
his G8 and I took the Astromer and some slides
have an observing session if weather permitted. He took
on Bob's lake to do an Astromer presentation and
Fred Barnett and I went to the Muzik Camp on Long Bay
Muzik Camp or Bob's lake sunset in
Sun in the - hints of prominence on the solar disk.

At about 23:30 UT (7:30 p.m. EDT) I gave the talk
his G8 and I took the Astromer and some slides
have an observing session if weather permitted. He took
on Bob's lake to do an Astromer presentation and
Fred Barnett and I went to the Muzik Camp on Long Bay
Muzik Camp or Bob's lake sunset in
Sun in the - hints of prominence on the solar disk.

14-17, Aug 12-16 02:00-03:12
No: Jupiter in the 2; stars of summer. The transparency
is 2378-4000 ne; Sakood
W. Aug. 12 17:22-17:30 UT in
Sun in the - hints of prominence on the solar disk
W. Aug. 12 17:20-17:30 UT in
Sun in the - hints of prominence on the solar disk
C8: 23, 28, 30, 12.2
T.O.F.

14-17, Aug 12-16 02:00-03:12
No: Jupiter in the 2; stars of summer. The transparency
is 2378-4000 ne; Sakood
W. Aug. 12 17:22-17:30 UT in
Sun in the - hints of prominence on the solar disk
W. Aug. 12 17:20-17:30 UT in
Sun in the - hints of prominence on the solar disk
C8: 23, 28, 30, 12.2
T.O.F.

2007

Sa. Aug. 17 was fairly good for a while at the beginning of the session, but it soon deteriorated in some parts of the sky and then generally. Then clouds covered most of the sky

20x1006 :: ~~trans~~ Neptune in Capricornus, M11 and R. Scuti, M26, M16, M17, M18, M23, M24, M25, M8, M20, M21, M22, M28, area of α Oph and α Her, IC4665, Barnard's Star and area, NGC 6633.

ph: prggyback photographs of several areas of the sky

Th. Aug. 16 18:20-18:25 UT t C-8, 32, 28, 20, 15.5
Sun Og Os RSN O T.O.F.

Th. Aug. 16 18:25-18:30 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H & - hints of prominences around the solar disk.

Th.-F. Aug. 16-17 01:50-04:00 UT 00 S?T9 ne; C-14, 55
ne: stars of summer; Jupiter in the S. and SW.
C-14, 55; M22, M11 and R. Scuti, Bas I within the trapezium to the right of M11. (Bas I is a small and rather loose open cluster.)
ph: photographed several areas of the sky using the 50mm lens and the 85mm lens. I also photographed the passage of the International Space Station which passed well north and east of the zenith. The ISS had just recently been visited by the crew of the Space Shuttle which included Dave Williams. It was still docked at the ISS.

Sa. Aug. 18 18:15-18:20 UT t C-8, 32, 28, 20, 15.5
Sun Og Os RSN O T.O.F.

Sa. Aug. 18 18:20-18:25 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H & - hints of prominences on the solar disk.

was fairly good for a while at the beginning of the session but it soon deteriorated in some parts of the sky and then generally. Their clouds covered most of the sky.

6:00: ~~then~~ ~~pictures~~ in Capricorn, Mill and R Cent; M26, M16, M17, M18, M23, M24, M25, M27, M28, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, 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M855, M856, M857, M858, M859, M860, M861, M862, M863, M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

Aug. 19 17:20 - 17:25 UT
RSNO

Tr. Aug 16 18:25-18:30 UT
Sun in H α - Rings of prominence around the solar disk.

Tr. F. Aug 16-17 01:20-04:00 UT
16: stars of summer; Jupiter in the 2. and 3W.
G-1452; M23, M1 and R Cent; 821 within the transition to the right of M11. (821 is a small and rather loose open cluster.)
ph: photographed several areas of the sky using the 82mm lens and the 82mm lens. I also photographed

the passage of the International Space Station which passed well north and east of the zenith. The 152 had just recently been visited by the crew of the Space Shuttle which included Dave Williams. It was still detected at the 152.

22. Aug 18 18:20-18:25 UT
Sun in H α - Rings of prominence on the solar disk.

2007 Su. Aug. 19 17:20-17:25 UT t
Sun Og Os RSNO

C-8, 32, 28, 20, 15.5
T. O.F.

Su. Aug. 19 17:30-17:35 UT nd

P.S.T.; 20, 28, 20E, 15.5

sun in HD - definite prominence at the 1 o'clock position
on the disk, and hints of prominences elsewhere on the disk.

S.-M. Aug. 19-20 02:15-03:20 UT y nd SPT8-9 (some cloud) ne; 18X50sb

ne: stars of summer, one bright meteor probably from
one of the active Aquarid meteor showers.

27 Messier
objects

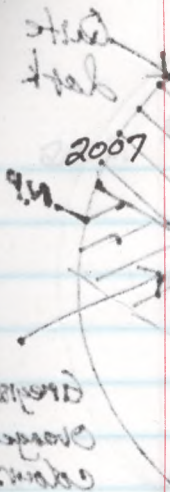
18X50sb: Neptune, M11 and R Scuti, M26, M16, M17,
M18, M23, M24, M25, M8, M20, M21, M22,
M28, U and EU Del, M2, M15, M39,
Kemble's Cascade, Kemble 2, M71, M27,
M57, β Cygni, M10, M31, M32, M110,
T Cor Bor, area of R Cor Bor but the
star was probably not seen probably
because of being near the Painter part
of its cycle, M81, M82, IC 4665
Barnard's Star, M51, M103, NGC 7789,
NGC 6633, NGC 663, NGC 654.

M.-T. Aug. 20-21 02:55-03:50 UT y SPT8-9 (varied) ne; 18X50sb

ne: stars of summer; one bright Perseid meteor at
03:11 UT approximately.

18X50sb: Uranus, Neptune, M2, M15, M11 and R Scuti;
M26, NGC 6683, B103, M16, M17, M18, M24, M25,
M22, M28, M31, M32, M33, M110, M13, M92,
T Cor Bor, area of R Cor Bor, but it was faint,
possibly near the lower range of its brightness,
Kemble's Cascade, Kemble 2, area of α Oph and
 α Her, IC 4665, Barnard's Star and its area
NGC 6633, M71, M27, M57, area of the
previously announced nova in Vulpecula thought

I probably saw the same star I had seen before and thought was probably the nova, though I did not notice a change in its current brightness, Double Cluster in Perseus, Stock 2, NGC 663, NGC 654, M103, NGC 457, ^{OC} in Cassiopeia, M34, IC 7789



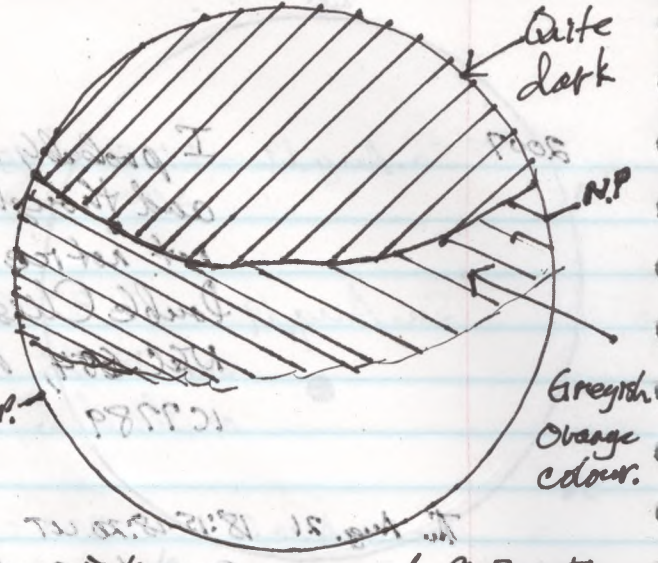
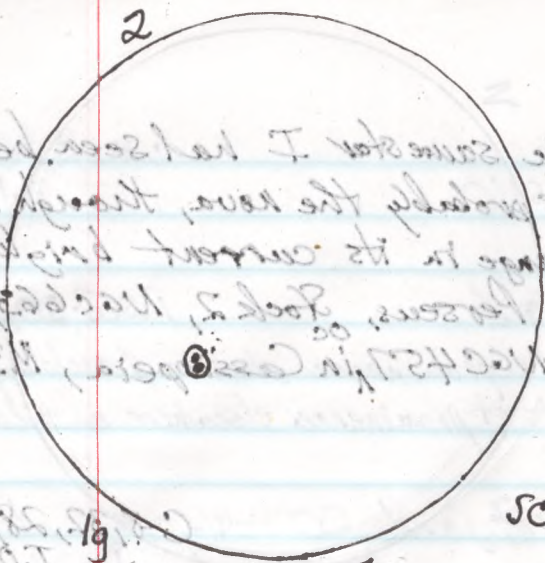
Thu Aug. 21 18:15-18:20 UT t C-8, 32, 28, 20, 15.5
 T.O.F.
 T.W.S.P. to view sun 19 25 RSN 12

Tu. Aug. 21 18:20-18:25 UT nd. P.S.T.; 20, 28, 20E, 15.5
 sun in HD - hints of prominences on the solar disk: 19

T.W. Aug. 21-22 03:00-03:40 UT T 5-8 (partly, cloud) 18x50isb
 ne: stars of summer, several meteors, one probably a Perseid, two possibly: Kappa Cygnids.
 18x50isb: Uranus, M2, M7, M31, M32, M33, M10, M34, M103, NGC 7789, NGC 663, NGC 654, NGC 457, Keable's Cascade, Keable 2, Double Cluster in Perseus, Stock 2, T Car Bor, area of R Car Bor but the star was probably in the lower part of its cycle and not seen with certainty; area of alpha Her and alpha Oph, M11 and R Scuti, M27, M57, M71, area of the recent nova in Vulpecula and the star which was possibly the nova appeared perhaps to be fainter than it had been - just slightly above the limiting magnitude of the binoculars; Col 399 - The Coathanger.

Su. Aug. 26 19:00-19:05 UT t C-8, 32, 28, 20, 15.5
 sun 19 25 RSN 12 T.O.F.

Su. Aug. 26 19:05-19:10 UT nd P.S.T.; 20, 28, 20E, 15.5
 sun in HD - hints of prominences on the solar disk



Aug 27
16:00-16:05 UT

Lunar Eclipse as seen at 9:20 UT
(5:20 a.m. E.D.T.) naked-eye

Total Lunar Eclipse of 2007, Aug. 28.

- P1 7:53:39 UT = 3:59:39 a.m. E.D.T.
- U1 8:51:16 UT = 4:51:16 a.m. E.D.T.
- U2 9:52:22 UT = 5:52:22 a.m. E.D.T.

MOONSET LOCALLY 10:26 UT = 6:26 a.m. E.D.T.

Greatest Eclipse 10:37:22 UT = 6:37:22 a.m. E.D.T.

- U3 11:22:24 UT = 7:22:24 a.m. E.D.T.
- U4 12:23:30 UT = 8:23:30 a.m. E.D.T.
- P4 13:21:01 UT = 9:21:01 a.m. E.D.T.

B.A.T. 8:38 UT = 4:38 a.m. E.D.T.

S.R. 10:24 UT = 6:24 a.m. E.D.T.

2007. M. Aug. 27 16:00-16:05 UT t
Sun lg 25 RSN 12

CG 32
T.O.F.

M. Aug. 27 16:05-16:10 UT nd P.S.T.; 20
Sun in H α - only hints of prominences on the solar disk

M.-T. Aug. 27-28 08:25-09:25 Periodically y tw latter 8:38 UT NE
Periodically I observed the beginning part of the Total
Lunar Eclipse of 2007, August 28 (See times on
Chart at left) as follows:

8:25-8:30 UT (4:25-4:30 a.m. E.D.T.): Darkening of upper quarter of the
lunar disk was noticeable for over 10 min. before B.A.T.

8:45-8:48 UT (4:45-4:48 a.m. E.D.T.) Darkening of upper half of the
disk was very noticeable

8:51-8:58 UT (4:51-4:58 a.m. E.D.T.) Very dark at upper edge,
as moon enters earth's penumbra at 8:51 UT.
A rusty-orange colour is evident below this
very dark upper edge

9:05-9:10 UT (5:05-5:10 a.m. E.D.T.) Very dark upper quarter
of the disk with dark rusty area below it and
in the upper part of the moon from the dark area
down to about the mid-point on the disk

9:20-9:25 UT (5:20-5:25 a.m. E.D.T.) Quite dark in the
upper one-third of the disk and a greyish-
orange colour from there down to over the
mid-range of the disk. (See diagram)

The N.P. - S.P. axis was tilted about 70° to the
right, of course and the moon ranged from 20°
to 10° above the WNW horizon. The sky was
crystal-clear. After 9:25 UT (5:25 a.m. E.D.T.) The
moon went into the trees at about 10° above the
horizon. It would set an hour later at 6:26 a.m.
E.D.T.) The view of part of the initial partial
phase of the eclipse was excellent. Moonset would be
11 minutes before Greatest Eclipse.

First
34 min.
of
Initial
Partial
Phase
of
Total
Lunar
Eclipse
Seen.

4
 19
 45
 RSN14
 Aug. 28
 19:45-19:50 UT

1
 19
 15
 RSN11
 Aug. 31
 18:10-18:15 UT

4
 19
 45
 RSN14
 Sept 1
 18:55-19:00 UT

2
 19
 25
 RSN10
 Sept. 2
 17:05-17:10 UT

11 minutes before Greatest Eclipse.
 Phase of the eclipse was excellent. Moon's umbra
 E.D.T. The view of part of the initial partial
 horizon. It would set on low later at 6:20 am.
 near went into the trees at about 10° above the
 crystal-clear. After 9:25 UT (5:25 a.m. E.D.T.) the
 to 10° above the W horizon. The sky was
 right of course and the moon ranged from 30°
 The N.P. - 29 was tilted about 70° to the
 mid-range of the disk. (See diagram.)
 Brought colour from tree down to over the
 upper one-third of the disk and a greyish-

seen.
 Total
 of
 of
 35 sec
 of
 34 min.
 First

2007 Tu Aug. 28 19:45-19:50 UT t
sun lg 4s RSN14

C-8, 32, 28, 20, 15.5
T.O.F.

Tu Aug. 28 19:50-19:55 UT nd
sun in H α only hints of prominences on the solar disk.

P.S.T.; 20, 28, 20E, 15.5

F. Aug. 31 18:10-18:15 UT t
sun lg 1s RSN11

C-8, 32, 28, 20, 15.5
T.O.F.

F. Aug. 31 18:15-18:20 UT nd
sun in H α - some hints of prominences on the disk.

P.S.T.; 20, 28, 20E, 15.5

Sa. Sept. 1 17:55-18:00 UT t
sun lg 4s RSN14

C-8, 32, 28, 20, 15.5
T.O.F.

Sa. Sept. 1 18:05-18:10 UT nd
sun in H α - hints of prominences on the solar disk.

P.S.T.; 20, 28, 20E, 15.5

Sa.-Su. Sept. 1-2 01:55-02:35 UT y SPC(T) 7-8 (rising gibbous moon) ne; 18x501sb
ne: stars of summer

18x501sb: Neptune in Cap; M8, M20, M21, M22, M28, M16,
M17, M18, M23, M24, M25, M11 and RScuti, M26,
Col 399, M71, M27, β Cyg, M2, M15, M31,
 α Oph and area, α Her, IC 4665, Barnard's
Star and area, NGC 6633, IC 4756, M13,
M92, probably glimpsed T Cor Bor which was quite
difficult under the circumstances, area of R Cor Bor
though the star was faint, Keable's Cascade,
Keable 2, Double Cluster in Perseus, Stock 2.

Su. Sept. 2 17:05-17:10 UT t
sun lg 2s RSN12

C-8, 32, 28, 20, 15.5
T.O.F.

Su. Sept. 2 17:15-17:20 UT nd
sun in H α - definite, distinct prominence at the 8 o'clock position
on the disk and hints of prominences elsewhere

P.S.T.; 20, 28, 20E, 15.5

2007 J.-M. Sept. 2-3 01:45-02:55 UT y S?T9 (less after moonrise) ne; 18X501sb

ne: stars of summer

18X501sb: Uranus, Neptune, M8, M20, M21, M22, M28
M23, M24, M25, M6, M7, M8, M11, M26, M71, M27,
Col 399, area of α Oph and α Her, IC 4665,
area of Barnard's Star, NGC 6633, IC 4756,
NGC 663, NGC 654, M103, NGC 457, NGC 7789
(the last 5 objects being in Cassiopeia), T Cor Bor,
area of R Cor Bor, M13, M92, Kemble's Cascade,
Kemble 2, M2, M15, area of α Persei, Double
Cluster, Stock 2,

M.-T. Sept. 3-4 02:10-03:25 UT y S?T9-7 (moonrise and some cloud) ne; 18X501sb

ne: stars of summer; 3 meteors, at least 2 of which
seemed to come possibly from Cygnus

18X501sb: Uranus, Neptune, M11 and R Scuti, M26,
Col 399, M71, M27, ~~13~~ Cyg, M57, M3, M33,
Kemble's Cascade, Kemble 2, Double Cluster,
NGC 654, NGC 6633, ~~NGC 654~~, NGC 7789, M10,
M12, M14, Barnard's Star, M2, M15, and Alpha
Persei cluster of stars, M34, NGC 6633, ~~IC 4756~~.

Tu. Sept. 4 17:45-17:50 UT t

Sun lg 3s RSN13

C8, 32, 28, 20, 155
T.O.F.

Tu. Sept. 4 17:50-17:55 UT

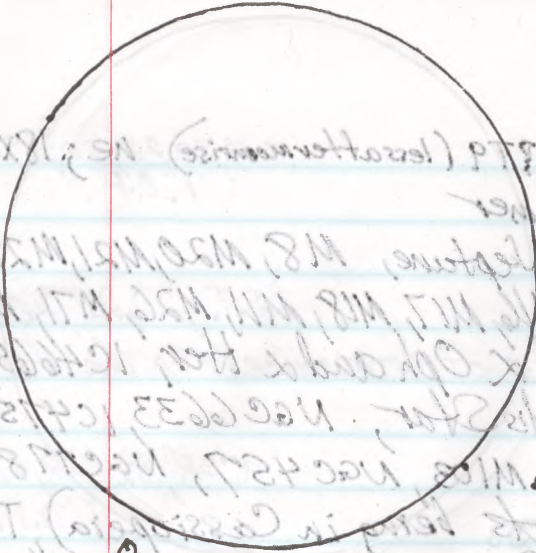
P.S.T.; 20, 28, 20E, 15.5

Sun in H α - hints of some prominences on the solar disk.

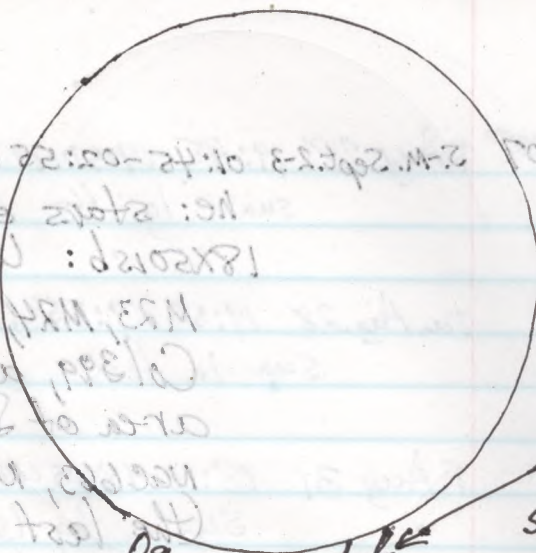
T.-W. Sept. 4-5 02:35-03:30 UT y S?T8-9 (varied) ne; 18X501sb

ne: stars of summer

18X501sb: Uranus, Neptune, M11 and R Scuti, M26,
T Cor Bor, area of R Cor Bor, area of
 α Oph and α Her, IC 4665, Barnard's Star
and area, NGC 6633, IC 4756, M13, M92,

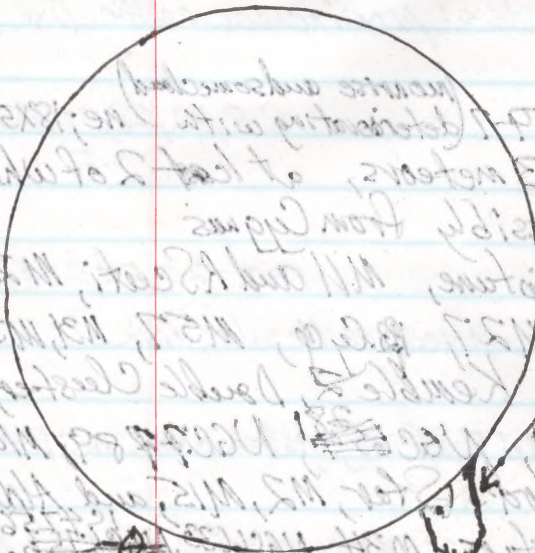


Og
Os
Sept 6
RSNO 17:05-17:10UT



Og
Os
Sept 7
RSNO 20:00-20:05UT

prominence
sc



Og
Os
Sept 8
RSNO 17:35-17:40UT

prominence

sc

2007,

Double Cluster in Perseus, Stock 2, a Persei Association, M34, area of NGC 891 but not sure of seeing it, areas of Cassiopeia including NGC 663, NGC 654, M103, NGC 281, NGC 7789, M52. I also saw a tumbling satellite that gave a flash of light approximately on 8 to 9 second intervals. It probably would not have been detected without the binoculars.

Th. Sept. 6 17:07:05-17:10 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSNO T.O.F.

Th. Sept. 6 17:15-17:20 UT ad P.S.T.; 20, 28, 20E, 15.5
sun in Hx - hints of several prominences on the disk.

F. Sept 7 20:00-20:05 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSNO T.O.F.

F. Sept. 7 20:05-20:10 UT ad A.S.T.; 20, 28, 20E, 15.5
sun in Hx - one definite prominence at about the 5 o'clock position on the disk (See diagram) and other hints of prominences on the disk.

Sa. Sept. 8 17:35-17:40 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSNO T.O.F.

Sa. Sept. 8 17:45-17:50 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in Hx - one definite prominence at the 4 o'clock position on the disk (See diagram) and other hints of prominences.

Sa-Su. Sept. 8-9 02:50-03:55 UT y s 7-8 (UT) 4-8 (Clouds, Varted, N) ne; 18x5015b
ne: stars of summer.
18x5015b: Uranus, Neptune, M11 and R Scuti, Col 399,

Double Cluster in Perseus, Stock 2, a pair of associations
 MST, area of NGC 891 but not sure of seeing it
 areas of Cassiopeia including NGC 3, NGC 24
 NGC 2881, NGC 2882, MST. I also saw a
 tumbling satellite that gave a flash of light
 approximately on 8 to 9 second intervals. It
 probably would have been detected without the
 SC

09
 05
 RSN0 Sept. 10
 18:40-18:45 UT

Double Cluster in Perseus, Stock 2, a pair of associations
 MST, area of NGC 891 but not sure of seeing it
 areas of Cassiopeia including NGC 3, NGC 24
 NGC 2881, NGC 2882, MST. I also saw a
 tumbling satellite that gave a flash of light
 approximately on 8 to 9 second intervals. It
 probably would have been detected without the
 SC

09
 05
 RSN0 Sept. 12
 19:00-19:05 UT

Sept. 6 17:15-17:30 UT
 sun in the - lots of several prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 7 20:00-20:05 UT
 sun in the - one definite prominence at about the 2 o'clock
 position on the disk (see diagram) and other hints
 of prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 7 20:05-20:10 UT
 sun in the - one definite prominence at about the 2 o'clock
 position on the disk (see diagram) and other hints
 of prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 8 17:35-17:40 UT
 sun in the - one definite prominence at the
 4 o'clock position on the disk (see diagram)
 and other hints of prominences.
 T.O.F. 08:33, 20:12

Sept. 8 17:45-17:50 UT
 sun in the - one definite prominence at the
 4 o'clock position on the disk (see diagram)
 and other hints of prominences.
 T.O.F. 08:33, 20:12

Sept. 8 19:50-20:00 UT
 no stars of sun.
 T.O.F. 08:33, 20:12

Sept. 6 17:15-17:30 UT
 sun in the - lots of several prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 7 20:00-20:05 UT
 sun in the - one definite prominence at about the 2 o'clock
 position on the disk (see diagram) and other hints
 of prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 7 20:05-20:10 UT
 sun in the - one definite prominence at about the 2 o'clock
 position on the disk (see diagram) and other hints
 of prominences on the disk.
 T.O.F. 08:33, 20:12

Sept. 8 17:35-17:40 UT
 sun in the - one definite prominence at the
 4 o'clock position on the disk (see diagram)
 and other hints of prominences.
 T.O.F. 08:33, 20:12

Sept. 8 17:45-17:50 UT
 sun in the - one definite prominence at the
 4 o'clock position on the disk (see diagram)
 and other hints of prominences.
 T.O.F. 08:33, 20:12

Sept. 8 19:50-20:00 UT
 no stars of sun.
 T.O.F. 08:33, 20:12

2007

W-Th Sept 11

M71, M27, β Cyg, M57, area of α Oph, Barnard's E
 in Aquila, IC4665, Barnard's Star and area,
 Taurus Poutrowskij, NGC 6633, IC4756, θ Ser
 (Alya) - a beautiful double stars, split in the
 binoculars, and just E of IC4756, M13, M92,
 Kemble's Cascade, Kemble 2, α Perseid group, Double
 Cluster in Perseus, Stock 2 - The Musclemans
 Cluster, NGC 752; M31, M32, M110, M33, NGC 654,
 NGC 663, M103, NGC 457, probably M52 since I
 observed objects to the NW from β Cas, NGC 7789,
 M13, M92, Helix Nebula in Aquarius.

θ Ser -
beautiful double

S-M. Sept. 9-10 03:20-04:35 UT y S:T 7-9 (varied) ne; 18x50isb
 ne: stars of late summer.

18x50isb: Uranus, Neptune, M2, M15, area of α Oph
 and α Her, IC4665, area of Barnard's Star
 and the star, NGC 6633, IC4756, Theta Ser,
 Col 399, M71, M27, M57, β Cyg, M39, M34,
 Kemble's Cascade, Kemble 2, NGC 663, NGC 654,
 M103, NGC 457, NGC 281, NGC 7789, M52,
 M30, the Helix Nebula, the Pleiades, NGC 752.

M. Sept. 10 18:40-18:45 UT t C-8, 32, 28, 20, 15.5
 Sun Og Os RSNO T.O.F.

M. Sept. 10 18:45-18:50 UT nd P.S.T.; 20, 28, 20E, 15.5
 Sun in Hd - hints of prominences at various points
 around the solar disk.

W. Sept. 12 19:00-19:05 UT t C-8, 32, 28, 20, 15.5
 Sun Og Os RSNO T.O.F.

W. Sept. 12 19:10-19:15 UT nd P.S.T.; 20, 28
 Sun in Hd - hints of slight prominences on the disk

2007 W-Th-Sept. 12-13 01:35-04:05 UT 00 S?T6-95 (varied) ne; 20X100b; C-1455

ne: stars of summer and autumn; 2 meteors.

20X100b: Uranus, Neptune, M11 and R Scuti; M26, T Cor Bor, area of R Cor Bor, area of α Oph, IC 4665, Barnard's Star and area, NGC 6633, IC 4756, the double star δ Serpentis - which was easily split, the nearby "double-double" which is known as "Tweedledum and Tweedledee" - not definitely split, though it may have appeared slightly elongated. (See U205 and U250.) M31, M32, M110, M33, M34, Levy 53 (NGC 752), Double Cluster in Perseus, Stock 2 (the Musceman Cluster), Kemble's Cascade.

C-14,55: M13, M57.

Th. Sept. 13 19:45-19:50 UT t C-8, 32, 28, 20, 15.5
sun \odot \odot \odot RSN0 T.O.F.

Th. Sept. 13 20:20-20:35 UT nd, y P.S.T.; 20, 28, 20E, 15.5
sun in H α - some hints of prominences on the disk

Th. -F. Sept. 13-14 02:25-03:45 UT y S?T8.5-9.5 varied, ne; 18X50sb
better near zenith

ne: stars of autumn; one meteor

18X50sb: Uranus, Neptune, M11 and R Scuti, Col 399, M27, β Cyg, M57, M27, M39, ψ Draconis - a beautiful double star, M81, M82, Kemble's Cascade, Kemble 2, Double Cluster in Perseus, Stock 2, NGC 654, NGC 663, M103, NGC 457 - the E. T. Cluster, ~~M82~~ NGC ~~457~~ 281, M52, NGC 7789, M31, M32, M110, M33, NGC 752 α Persei Group of stars, Pleiades rising out of the trees, Helix Nebula, M30, M34 area of α Oph and α Her, IC 4665,

2007

Tweedledee
and
Tweedledum

02

Polar Ring of Stars

Barnard's Star and area, Taurus Pontowski and area, NGC 6633, IC 4756, Theta Serpentis - split very nicely (!), the star known as "Tweedledee and Tweedledum" because it is actually a "double double" whose secondary doubles are amazingly similar in magnitudes, position angles and separations. Even the "primary double" is very close, at about 2.2 arc seconds, and difficult to separate except in a large telescope. This "double-double" star is located about $\frac{1}{3}$ of the distance between IC 4756 and Theta Serpentis (Alya) or about 1 degree E. of IC 4756. It is labelled on MSA Chart 1270; the Polar Ring of stars near Polaris. It is called the Engagement Ring in Gary Seronik's book "Binocular Highlights, page 34"; Barnard's E - described in the same book on page 65 - located W. of Altair in the constellation Aquila; T Cor Bor, area of R Cor Bor, Helix Nebula; M30, M2, M15

S.-M. Sept. 16-17 03:05-04:00 UT y 57T8-9 (varied) ne; 18x50 15b
ne: stars of autumn

18x50 15b: Uranus, Neptune, M2, M15, M30, Helix Nebula, U and EU Del, Col 399, M71, M27, M57, β Cyg, M39, area of α Cygni, area of α Oph and α Her, IC 4665, NGC 6663, IC 4756, beautiful double star Theta Serpentis, nearby "Tweedledee and Tweedledum", M13, M92, Kemble's Cascade, Kemble 2, beautiful double star ψ Draconis not far from Kemble 2, wide double star ν Draconis, M13, M90, Double Cluster in Perseus, Stock 2, NGC 654, NGC 663, M103, NGC 457

Barward's 24 and area, Turner's 104752 and area, MAC 633, 104752, Tere's 204752 - split very nicely (!), the star known as "two-headed" and "two-headed" because it is actually a "double double" whose secondary doublets are amazingly similar in magnitudes. Even the primary position angles are 25 degrees. Even the primary "double" is very close (at about 2.2 arcseconds) to a doublet to separate 6x7.10 UT.

09
05
RSNO Sept. 17
17:40-17:45 UT

Barward's 24 and area, Turner's 104752 and area, MAC 633, 104752, Tere's 204752 - split very nicely (!), the star known as "two-headed" and "two-headed" because it is actually a "double double" whose secondary doublets are amazingly similar in magnitudes. Even the primary position angles are 25 degrees. Even the primary "double" is very close (at about 2.2 arcseconds) to a doublet to separate 6x7.10 UT.

09
05
RSNO Sept. 18
17:45-17:50 UT

the distance between 104752 and Tere's 204752 (Alp) or about 10 degrees E of 104752. It is labelled on MSA Chart 1370: the Polar Ring of stars near Polaris. It is called the Engagement Ring in Carl Sereno's book "Polaris Highlights, page 34"; Barward's 24 - described in the same book on page 67 - located W. of Altair in the constellation Aquila; Tere's 204752 area of Car Bor, Helix Nebula; M30, M2, M13

2-M. Sept. 16-17 03:02-04:00 UT (2578-2579) as recorded
no. stars of distance
18x2012P: Wawa, M2, M13, M30, Helix Nebula, M4, M3, M2, M1, M37, M27, M39, M31, M32, M33, M34, M35, M36, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, M689, M690, M691, M692, M693, M694, M695, M696, M697, M698, M699, M700, M701, M702, M703, M704, M705, M706, M707, M708, M709, M710, M711, M712, M713, M714, M715, M716, M717, M718, M719, M720, M721, M722, M723, M724, M725, M726, M727, M728, M729, M730, M731, M732, M733, M734, M735, M736, M737, M738, M739, M740, M741, M742, M743, M744, M745, M746, M747, M748, M749, M750, M751, M752, M753, M754, M755, M756, M757, M758, M759, M760, M761, M762, M763, M764, M765, M766, M767, M768, M769, M770, M771, M772, M773, M774, M775, M776, M777, M778, M779, M780, M781, M782, M783, M784, M785, M786, M787, M788, M789, M790, M791, M792, M793, M794, M795, M796, M797, M798, M799, M800, M801, M802, M803, M804, M805, M806, M807, M808, M809, M810, M811, M812, M813, M814, M815, M816, M817, M818, M819, M820, M821, M822, M823, M824, M825, M826, M827, M828, M829, M830, M831, M832, M833, M834, M835, M836, M837, M838, M839, M840, M841, M842, M843, M844, M845, M846, M847, M848, M849, M850, M851, M852, M853, M854, M855, M856, M857, M858, M859, M860, M861, M862, M863, M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

Polar Ring of stars

2007

NGC 281, NGC 77-89, M34, M31, M32, M110, M33,
area of Capella and "The Kids", Pleiades, the
Polaris Ring of Stars, Barnard's E near Altair.
 μ Cep and other areas of Cepheus.

M. Sept. 17 17:40-17:45 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSNO T.O.F.

M. Sept. 17 17:55-18:00 UT nd. P.S.T.; 20, 28, 20E, 15.5
sun in H α - only hints of prominences on the solar disk.

M.-T. Sept. 17-18 03:20-04:05 UT y 57T9 (later 8 in the W) ne; 18X5015b
ne: stars of autumn, Mars and trees in the E.
18X5015b: Uranus, Neptune, M2, M15, M30, Helix Nebula,
Col 399, M71, M27, β Cyg, M57, IC 4665, NGC 6633,
IC 4756, the star called Tweedledee and Tweedledum,
Theta Serpentis - DS - nicely split; M13, M92, ν Draconis
DS; ψ Draconis - split; Kemble 2, α Persei group,
Kemble's Cascade, Double Cluster in Perseus, Stock 2,
NGC 663, NGC 654, M103, NGC 457 - the ET cluster,
NGC 281, NGC 7789, M52, Levy 53 (NGC 752), M31,
M32, M110, ~~the~~ Pleiades.

Tu. Sept. 18 17:45-17:50 UT t C-8, 32, 28, 20, 15.5
sun Og Os RSNO T.O.F.

Tu. Sept. 18 17:50-17:55 nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - hints of some prominences on the solar disk.

T.-W. Sept. 18-19 01:20-03:40 UT 00 57-8T8-9.5 Varied ne; 18X5015b; N
ne: Having briefly observed the First Quarter Moon
with 20X100 binoculars in twilight at 23:35 UT, I observed
the stars of autumn and saw one fast meteor.
18X5015b: Uranus, Neptune, M11 and R Senti, M26,

2007

area of Capella and "the kids" ...
folate rim of stars ...
faded and other areas of Capella.

M. Sept. 17 17:40-17:45 UT
sun of 02 R210
50

M. Sept. 17 17:52-18:00 UT
sun in the ...
19:00-19:05 UT
R210

M-T. Sept. 17-18 03:00-04:00 UT (later 8-10 AM) ...
re: stars of autumn, Mars and Jovian in the E.
R20120: Uranus, Neptune, M3, M12, M30, Helix, ...
Col 399, M71, M37, ...
The 2 spots - 2 - nearly split. M13, M37, ...
D2: 1/2 ... split. ...
Kemp's ... Double Cluster, ...
M32, M110, ...

Tu. Sept. 18 17:42-17:50 UT
sun of 02 R210

Tu. Sept. 18 17:50-17:55 UT
sun in the - hints of some ... on the solar disk.

Tu-W. Sept. 18-19 01:30-03:40 UT
re: Having briefly observed the First Quarter Moon
with ... in twilight at 23:30 UT, ...
the stars of autumn and saw one fast ...
R20120: Uranus, Neptune, M11 and K2001, M30,

2007.

area of α Dph and α Her, Barnard's Star, NGC 633, IC 4756, 'Tweedle dum and Tweedle dee' star, Theta (Θ) Serpentis - DS - nicely split, Col 399, M 71, M 27, β Cyg.

20x100b: Having been alerted by Ken Kingdon regarding a satellite near the star λ (37) Aquarii, I observed the area of that star beginning before 01:40 UT (9:40 p.m. E.D.T.). About that time I noticed a fairly regular flashing from a spot about $\frac{1}{4}^{\circ}$ SSE of that star - perhaps about every 4 or 5 seconds. After about 2 minutes the flashes seemed to be less frequent, but they did continue for a while. I watched until about 02:00 UT (10:00 p.m. E.D.T.). The moon set about 02:22 UT. I also observed Barnard's E near Altair, IC 4665, Barnard's Star, Θ Serpentis - split nicely, T Cor Bor, area of R Cor Bor which was much fainter than when seen at maximum; M 13, M 92, ν Draconis - DS - split extremely easily; tried but did not seem to be able to split the double star δ Draconis - perhaps because of the difference in magnitude; ψ Draconis - DS - split easily; Kemble ~~2~~ μ 2; α Persei cluster, M 34, Levy 53 (NGC 752); Double Cluster in Perseus, Stock 2 (the Muscman cluster). NGC 663, NGC 654, M 103, NGC 457 (the E. T. Cluster in Cas.); NGC 281, NGC 7789, M 52, M 31, M 32, M 110, M 33, M 2, M 15; Barnard's E near Altair.

Flashing from a satellite near λ Aquarii

W. Sept. 19 19:00-19:05 UT t C-8, 32, 20, 20, 15.5
Sun Cg Os RSN0 T.O.F.

W. Sept. 19 19:05-19:10 UT nd P.S.T.; 20, 28, 20E, 15.5
Sun in H α - lights of prominences around the disk

2007

area of R. D. and 21st, Barnard's Star, M33
10475, Tinsley and Tinsley's star, M33 (2)
Separate - D2 - group split, M33, M32

201000? Having been spotted before Kingdon's
a satellite near the star 5 (37) Barnard's I
observed the star that star being before
01:40 NT (9:40 p.m. E.D.T.) About 1/2 hr

I noticed a faint region about
25E of that 18:15 UT
Sept 20 18:15-19:15 UT
RSNB

likely
from a
satellite
near Barnard's I

After about 2 minutes the stars
seemed to be far apart, but their
for a while, I watched with about 0.5000
10:00 p.m. E.D.T. The moon set about 0.5000

I also observed Barnard's E near Altair
10:00, Barnard's Star, Barnard's - split
T. Carver, area of R. Carver which was much
fainter than when seen at maximum: M13, M32

D. Barnard's - D2 - split - extended early; third but
not seem to be able to split the double star
D. Barnard's - perhaps because of the distance
is magnitudes; Barnard's - D2 - split early;

Reminds me of Barnard's cluster; M34
(M34 152); Double cluster in Barnard's Star
the Musclem cluster. No 003, No 004, M103

No 427 (the E.T. cluster in Barnard's); No 281,
No 1784, M32, M31, M33, M103, M33, M34
M3; Barnard's E near Altair.

W. Sept 19 19:00-19:05 UT
Sun of 02 1210
0.12, 0.20, 1.2
T.O.F.

W. Sept 19 19:05-19:10 UT
Sun in the - bits of Barnard's around the disk
P.T.: 0.20, 0.20, 1.2

2007 W.-Th. Sept. 19-20 01:35-03:00 UT 57P/T7-9 (varied) ne; 18x50 isb
ne: stars of autumn; one bright meteor

18x50 isb: Uranus, Neptune, M2, M15, M30, area of
 α Oph and β Her, IC4665, Barnard's Star,
Taurus Pontowski, NGC 6633, IC4756, the star
known as Tweedledee and Tweedledum, θ

Serpentis - DS - split nicely, M13, M92, Col 399,
M71, M27, β Cyg, M57, ν Draconis, ψ

Draconis - split nicely, Kemble 2, α Persei
group of stars, M34, Levy 53 (NGC 752),

Double Cluster in Perseus, Stock 2 (The Musclemans
Cluster), Kemble's Cascade, NGC 654, NGC 663,
NGC 457 (The E.T. Cluster), NGC 281, NGC 7789,
M52, M103, ν Draconis - D.S. split nicely
M31, M32, M110, M33, Barnard's E in Aquila,
M81, M82.

Th. Sept. 20 18:10-18:15 UT ϵ
sun Og Os RSN O

C-8, 32, 28, 20, 155
T.O.F

Th. Sept. 20 18:15-18:20 UT nd
sun in H α - hints of prominences on the disk

P.S.T.; 20, 28, 205, 155

Th.-F. Sept. 20-21 03:40-05:00 UT y 58T8-9.5! (better after sunset) at or near ne; 18x50 isb
ne: stars of autumn, one meteor, Mars rising in the E.

18x50 isb: Uranus, Neptune, M2, M15, M30, Helix
Nebula, Col 399, M71, M27, β Cyg, M57,
 ϵ Lyrac, M39, NGC 6633 ν Draconis - DS,

ν Draconis - DS - easily split, Kemble 2, α Persei
Group of stars, M34, μ Cep, ζ Cep, NGC 654,

NGC 663, M103, M 457 (The E.T. Cluster), NGC 281,
M52, NGC 7789, M31, M32, M33, M110, Levy 53
(NGC 752), Kemble's Cascade, Double Cluster in
Perseus, Stock 2 (The Musclemans Cluster), M36,
M37, M38.

09:05 R5NO
 Sept. 21
 18:00-18:05 UT

09:05 R5NO
 Sept. 22
 18:50-18:55 UT

09:05 R5NO
 Sept. 23
 18:15-18:20 UT

09:05 R5NO
 Sept. 20
 18:10-18:15 UT

09:05 R5NO
 Sept. 20
 18:15-18:20 UT

09:05 R5NO
 Sept. 20
 18:10-18:15 UT

09:05 R5NO
 Sept. 20-21
 03:50-03:55 UT

09:05 R5NO
 Sept. 20-21
 03:50-03:55 UT

2007 F. Sept. 21 18:00-18:05 UT t C-8, 32, 28, 20, 15.5
sun O_g O_s RSNO T.O.F.

F. Sept. 21 18:05-18:10 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - hints of prominences on the solar disk

Sa. Sept. 22 18:50-18:55 UT t C-8, 32, 28, 20, 15.5
sun O_g O_s RSNO T.O.F.

Sa. Sept. 22 18:55-19:00 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - hints of prominences on the solar disk

Su. Sept. 23 18:15-18:20 UT t C-8, 32, 28, 20, 15.5
sun O_g O_s RSNO T.O.F.

Su. Sept. 23 18:20-18:25 UT P.S.T.; 20, 28, 20E, 15.5
sun in H α - one distinct prominence near 3 o'clock position
according to the eyepiece field orientation (see diagram.)

M. Sept. 24 19:30-19:35 UT t C-8, 32, 28, 20, 15.5
sun O_g O_s RSNO T.O.F.

M. Sept. 24 19:35-19:40 UT nd P.S.T.; 20, 28, 20E, 15.5
sun in H α - some hints of prominences on the disk.

M-T. Sept. 24-25 03:10-03:20 UT nd 5? T3 (gml) ne; 18x50 15b
ne: Under a very bright gibbous moon, only about 40
hours before Full Moon, I observed the stars of the
Summer Triangle and a few other stars.
18x50 15b: Double Cluster in Perseus, α Persei group of stars,
Kemble's Cascade, Kemble 2 in Draco, ψ Draconis -
DS - easily split, stars of Lyra, Alcor and
Mizar, the features on the very bright lunar
disk.

5007 F. Sept. 21 18:00-18:05 UT
Sun Op. 02 R210
C8, 25, 28, 20152
T.O.F.

F. Sept. 21 18:02-18:10 UT
Sun in H α - hints of prominences on the solar disk
P.S.T.: 20, 23, 20152

2. Sept. 22 18:20-18:25 UT
Sun Op. 02 R210
C8, 25, 28, 20152
T.O.F.

2. Sept. 22 18:22-18:00 UT
Sun in H α - hints of prominences on the solar disk
P.S.T.: 20, 23, 20152

2. Sept. 23 18:15-18:20 UT
Sun Op. 02 R210
C8, 25, 28, 20152
T.O.F.

2. Sept. 23 18:20-18:25 UT
Sun in H α - one distinct prominence near 3rd left position according to the egress field orientation. (see diagram).
P.S.T.: 20, 23, 20152

M. Sept. 24 19:20-19:25 UT
Sun Op. 02 R210
C8, 25, 28, 20152
T.O.F.

M. Sept. 24 19:32-19:40 UT
Sun in H α - some hints of prominences on the disk
P.S.T.: 20, 23, 20152

M. Sept. 24-25 20:00-20:05 UT (cont.)
Note: Under a very bright gibbous moon, only about 10 hours before Full Moon, I observed the start of the filament eruption and a few other stars.
18x250: Double Cluster in Perseus & Perseus group of stars.
Kantles Cascade, Kantles in Perseus, ϕ Perseus -
DS - easily split stars of late A, late and
Mizar, the features on the very bright lower
disk.

Relative Sunspot Numbers

Date	My Observation			
Apr 21	0		July 2	17
22	0		3	12
24	0		12	18
29	19		15	29
2500 30	17		16	26
May 3	19		17	25
4	19		18	14
5	20	2540	21	0
6	15		22	0
7	12		23	0
8	0		25	0
10	15		26	0
13	15		27	0
14	25		30	0
			31	0
2510 18	20		Aug. 1	0
19	21		2	0
21	14		3	0
22	12		4	11
23	11		6	12
24	0		8	14
25	0		9	12
26	0		10	11
29	11		11	11
June 8	25		12	0
9	24		13	0
2520 10	24		14	0
12	13	2560	15	0
13	0		16	0
14	0		18	0
15	0		19	0
17	0		21	12
21	0		26	12
22	0		27	12
23	0		28	14
24	0		31	11
2530 25	11		Sept. 1	14
26	12			
30	14			
			Sept. 2	12
			4	13
			6	0
			7	0
			8	0
			10	0
			12	0
			13	0
			17	0
			18	0
			2580 19	0
			20	0
			21	0
			22	0
			23	0
			24	0

Relative Sweep Numbers

Date
Year

Date	Year	Relative Sweep Number
April 1	0	17
2	0	18
3	0	18
4	0	18
5	0	18
6	0	18
7	0	18
8	0	18
9	0	18
10	0	18
11	0	18
12	0	18
13	0	18
14	0	18
15	0	18
16	0	18
17	0	18
18	0	18
19	0	18
20	0	18
21	0	18
22	0	18
23	0	18
24	0	18
25	0	18
26	0	18
27	0	18
28	0	18
29	0	18
30	0	18
31	0	18
32	0	18
33	0	18
34	0	18
35	0	18
36	0	18
37	0	18
38	0	18
39	0	18
40	0	18
41	0	18
42	0	18
43	0	18
44	0	18
45	0	18
46	0	18
47	0	18
48	0	18
49	0	18
50	0	18
51	0	18
52	0	18
53	0	18
54	0	18
55	0	18
56	0	18
57	0	18
58	0	18
59	0	18
60	0	18
61	0	18
62	0	18
63	0	18
64	0	18
65	0	18
66	0	18
67	0	18
68	0	18
69	0	18
70	0	18
71	0	18
72	0	18
73	0	18
74	0	18
75	0	18
76	0	18
77	0	18
78	0	18
79	0	18
80	0	18
81	0	18
82	0	18
83	0	18
84	0	18
85	0	18
86	0	18
87	0	18
88	0	18
89	0	18
90	0	18
91	0	18
92	0	18
93	0	18
94	0	18
95	0	18
96	0	18
97	0	18
98	0	18
99	0	18
100	0	18

TELESCOPE MAGNIFICATION

OCULAR in	C-14(3910 ^m FL)	C-8(2000 ^m FL)	ASTROSCAN(445 ^m FL)
55mm	71 X	36.4 X	
40	97.8	50	11.1 X
36	108.6	55.6	12.4
32	122.2	62.5	13.9
28	139.6	71.4	15.9
26	150.4	76.9	17.1
25	156.4	80	17.8
21.5	181.9	93	20.7
20	195.5	100	22.3
19	205.8	105.3	23.4
18	217.2	111.1	24.7
17	230	117.6	26.2
15.5	252.3	129	28.7
15	260.7	133.3	29.7
13	300.8	153.8	34.2
12.7	307.9	157.5	35
12.5	312.8	160	35.6
12	325.8	166.7	37.1
9	434.4	222.2	49.4
8.8	444.3	227.3	50.6
8	488.8	250	55.6
7.4	528.4	270.3	60.1
7	558.6	285.7	63.6
5	782	400	89
4	977.5	500	111.3

TELESCOPE PARAMETERS

	C-14	C-8	Astroscan
FL	3910mm	2000mm	445 mm
D	354 mm	200 mm	105 mm
f/	f/11	f/10	f/4.24

USEFUL MAGNIFICATION (0.2D to 2D)

354 mm	200 mm	105 mm
71X - 708X	40X - 400X	21X - 210X

STELLAR MAGNITUDES FOR COMPARISON PURPOSES

- 0 Capella, Vega
- 1 Aldebaran
- 1.5 Castor
- 2 Polaris, Alpha Andromedae
- 2.5 Alpha Pegasi
- 3 Zeta Tauri, Gamma Ursae Minoris
- 3.5 Alpha Trianguli
- 4 Mu Andromedae
- 4.5 Nu Andromedae, Delta Ursae Minoris

Chi Cassiopeiae