

LEO ENRIGHT LOGBOOKS

Volume
24
January 29, 2005
to
August 21, 2005

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TOP FLIGHT



HIGH TECH MICRO PERFORATION

*Leo Enright
Observing Log*

Jan. 29, 2005 - Aug. 21, 2005

STANDARDS

1 SUBJECT
College Rule
70 Sheets **10 1/2" x 8"**
notebook

www.topflightpaper.com
Made in USA

July 8, 2005 Since June 10, 2005

14 solar observations

June 28 - 27 - 5 O's

RSN: July 6:107 -
7:110 -

Mercury-Venus observations:

June 21 - July 3:

14 observations on 12
consecutive days

12 observations on 11

Observing Log

Code:

Year Day Date Time

Place

Sky Conditions:

S = Seeing T = Transparency

Instrument(s)

Time:

Places:

Sky Conditions:

UT = Universal Time

OO = Oso Observatory

S = Seeing

T = Transparency

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

la = laneway by = backyard

FL = Florida pl = at condo

0-10 Scale: 0 = air or

extremely poor

10 = absolutely superb

cm = crescent moonlight

gal = gibbous moonlight

fl = full moonlight

l/p = light pollution

Instruments:

C-14 = Celestron 14-35.5cm SCT

C-8 = Celestron 8-20cm SCT

Ast = Astroscan 2001-10.5cm RFT

12½" = Denise's 32cm Meade

20x100b = 20x100 binoculars

11x80b = 11x80 binoculars

9x63b = 9x63 binoculars

7x35b = 7x35 binoculars

18x50LSb = 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

p/b = piggyback

o/a = off axis

Ba = Barlow

APF = Astro-Physics Solar Filter

T.O.F = Thousand Oaks Solar Filter

Objects:

PN = Planetary Nebula

GC = Globular Cluster

OC = Open Cluster

SG = Spiral Galaxy

EG = Elliptical Galaxy

D = Double Star

LPV = Long Period Variable

Atlases:

U = Uranometria 2000.0

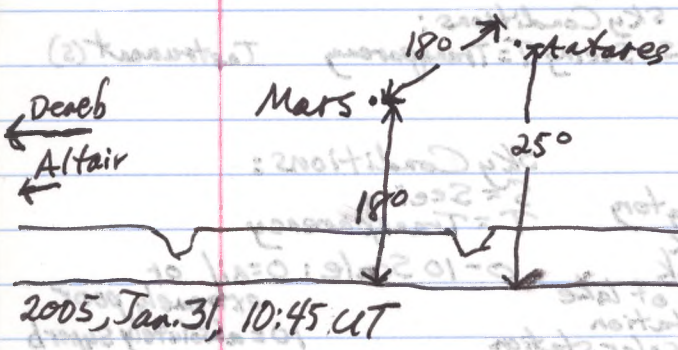
U210 = Uranometria 2000.0 Chart 210

AAUSO = AAUSO Variable Star Atlas

Cam = Cambridge Star Atlas (2000.0)

MSA = Millennium Star Atlas.

← Vega



2005, Jan. 31, 10:45 UT

Observing Log

Code:

Your Date Time Place

Time:

NT = Minimum Time

00 = 0:00

10 = 10:00

20 = 20:00

30 = 30:00

40 = 40:00

50 = 50:00

60 = 60:00

70 = 70:00

80 = 80:00

90 = 90:00

100 = 100:00

110 = 110:00

120 = 120:00

130 = 130:00

140 = 140:00

150 = 150:00

160 = 160:00

170 = 170:00

180 = 180:00

190 = 190:00

200 = 200:00

210 = 210:00

220 = 220:00

230 = 230:00

240 = 240:00

250 = 250:00

260 = 260:00

270 = 270:00

280 = 280:00

290 = 290:00

- Objects:
- PH = Planetary Nebula
 - GC = Globular Cluster
 - DC = Open Cluster
 - SC = Spiral Galaxy
 - EG = Elliptical Galaxy
 - D = Double Star
 - LPI = Long Period Variable
- Filters:
- N = Normal 2000 Å
 - N20 = Normal 2000 Å with 210
 - AA20 = AA20 Variable Star Filter
 - Cam = Cambridge Star Atlas (2000)
 - MSA = Millennium Star Atlas

- Treatments:
- C-14 = Collection 14 - 3250 Å SCT
 - C-8 = Collection 8 - 600 Å SCT
 - 20A-20 = Achromatic 2001 - 1850 Å FT
 - 12" = Doublet 3.5 cm Merz
 - 11x80P = 11x80P binoculars
 - 9x63P = 9x63P binoculars
 - 7x35P = 7x35P binoculars
 - 18x20SP = 18x20 mm STABILIZED binoculars
 - 8.5" = 8.5" Schmidt-Cassegrain Telescope
 - 3.5 = 3.5 mm ocular
 - 3.5-2 = 3.5 mm 2" ocular
 - K = Keller
 - O = Ocular
 - Ka = Kaito
 - Wa = Winkler
 - P = Prism
 - Ph = Photography
 - P/B = Piggyback
 - O/A = Off axis
 - Ba = Barlow
 - AP = Astro-Physics 2" Star Filter
 - T.O.F. = Thousand Oaks Star Filter

2005 S.-S. Jan. 29-30 03:00-03:45 UT FL: la S8(?) T 5-6 (1/pign/jn) ^{some cloud} ne; 18X5015b
 ne: bright stars of Orion, Auriga, Canis Major, Pleiades
 Hyades, Procyon, Castor and Pollux, Canopus,
 Saturn, α and β Persei, Aldebaran. Gibbous moon
 which was rising in the E. (at the other side of the
 house) was seen later.

Comet Machholz
 (C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) seen about 7°
 NNW of the star γ Persei, with a very slight,
 possible hint of a tail, possibly $\frac{1}{2}^\circ$ in length fanning
 out toward the E.; Pleiades, Hyades, areas of
 Orion including λ Orionis area, M42 and M43,
 area of R Lep, M41, M46, M47, NGC 2244, S Mon
 and the 'Christmas Tree asterism', M35, M36, M37,
 M38, M44 (Praesepe or Beehive Cluster).

S.-M. Jan. 30-31 03:25-05:00 UT FL: la S(?) T 1 (Yp; cloud!) ne; 18X5015b
 ne: Amid very heavy clouds I did occasionally see
 a few stars: some of the stars of Orion, Sirius,
 Procyon, Castor and Pollux, and Saturn.
 (Earlier at Joe and Candee's place after our
 trip to a restaurant near Naples, I had seen
 many of the stars of winter under good
 conditions.)

18X5015b: area of Saturn, some areas of Orion
 amid the clouds.

5:45-5:55 a.m. EST
 M. 10:45-10:55 UT

FL: la xi + by twl beginning ne; 18X5015b
 ne: Mars and Antares in the E. Gibbous moon and Jupiter
 very high in the SSE.

18X5015b: Moon and Jupiter and one or two of its
 moons. Because of the close conjunction, I
 tried to estimate the Moon-to-Jupiter edge-to-edge
 distance and to be part of a Lunar Parallax
 Project with Ken Kingdon. Their distance

← Vega

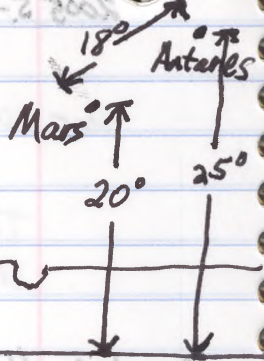
• Jupiter



18x50DSB
view

← Altair
Deneb
←

Scorpius ..



2005, Jan 31 11:00 UT: Estimated Moon-Jupiter
edge-to-edge distance: 50" (1.6x moon's diameter)

2005, Feb. 1, 11:05 UT View to E
showing Mars and Antares

2005

apart was increasing and seemed to be greater than the lunar diameter.

M. 11:00 - 11:10 a.m. E.S.T. FL: by twl ne; 18X5015b
ne: Moon and Jupiter

18X5015b: Moon and Jupiter to estimate the separation (See diagram.) They were estimated to be 50 arc minutes apart.

M. 6:30 - 6:40 a.m. E.S.T. 11:30 - 11:40 UT FL: by twl ne; 18X5015b
ne: Moon and Jupiter; Vega, Deneb and Altair in the NE.

18X5015b: Moon - Jupiter edge-to-edge separation estimated to be 60 arc minutes.

M.-T. Jan 31 - Feb 1 02:25 - 03:35 UT FL: la S8(?)T5(1/p) ne; 18X5015b
ne: bright stars of Orion, Auriga, Canis Major, Procyon, Castor and Pollux, Saturn, Aldebaran, Canopus, Pleiades.

Comet Machholz (C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) about 8-10 degrees NNW of γ Persei, with perhaps a very faint hint of a tail fanning out to the E.; Pleiades, Hyades, M35, M36, M37, M38, M41, M42, M43, areas of Orion incl. 2 Orions area, area of R Lep, NGC 2244, S Mon and 'Christmas Tree' asterism, a bright meteor in the area of the Pleiades, while I was observing the Pleiades, M46, M47, Saturn.

M. 6:00 - 6:10 a.m. E.S.T. 11:00 - 11:10 UT FL: laaai twl ne; 18X5015b
ne: Mars, Antares and some stars of Scorpius in the ESE; Vega, Deneb, and Altair in the NE. (See diagram.)
18X5015b: Mars and Antares and some stars of Scorpius.

T.-W. Feb. 1-2 02:25 - 04:05 UT FL: by S8(?)T-varied: N^{0-5 (1/p; cloud)} ne; 18X5015b
ne: For about the first 1 hour and 10 minutes of the session, the sky was very cloudy, and almost

← Vega

18X2012p: Mars and Asteroids and some stars of Scorpio in the NE (see diagram)
 ESE: Vega, Deneb, and Altair in the NE (see diagram)
 NE: Mars, Asteroids and some stars of Scorpio in the NE (see diagram)

18X2012p: Mars and Asteroids and some stars of Scorpio in the NE (see diagram)
 ESE: Vega, Deneb, and Altair in the NE (see diagram)
 NE: Mars, Asteroids and some stars of Scorpio in the NE (see diagram)

18X2012p: Mars and Asteroids and some stars of Scorpio in the NE (see diagram)
 ESE: Vega, Deneb, and Altair in the NE (see diagram)
 NE: Mars, Asteroids and some stars of Scorpio in the NE (see diagram)

18X2012p: Mars - Jupiter edge-to-edge separation estimated to be 60 arc minutes.
 in the NE.

18X2012p: Mars - Jupiter edge-to-edge separation estimated to be 60 arc minutes.
 in the NE.

18X2012p: Mars - Jupiter edge-to-edge separation estimated to be 60 arc minutes.
 in the NE.

18X2012p: Mars - Jupiter edge-to-edge separation estimated to be 60 arc minutes.
 in the NE.

18X2012p: Mars - Jupiter edge-to-edge separation estimated to be 60 arc minutes.
 in the NE.

2005

completely overcast. At about 03:35 UT much of the cloud cover disappeared. I was able to see the bright stars of Orion, Canis Major, and Auriga, also Procyon, Castor and Pollux, Canopus, Aldebaran, α and β Persei, and Saturn in Gemini.

Comet Machholz
(C/2004 Q2)

18X50ISb: Comet Machholz (C/2004 Q2) in Cassiopeia with possibly a very slight hint of a tail toward the E., also M41, M42, areas in Orion such as the λ Orionis area, R Lep area, Pleiades, Hyades, α Persei Cluster, M35, M36, M37, M38, M46, M47, NGC 2244, S Mon and the 'Christmas Tree' asterism.

W-Th. Feb. 2-3

02:50-03:50 UT FL: la S8-9 T1-5 (1/p; varying cloud) ne; 18X50ISb
ne: For the first 10 min., there was widely scattered cloud covering much of the sky at first and then less later on. Eventually it was over a relatively smaller part of the sky. Objects seen: bright stars of Orion, Canis Major, Auriga, Pleiades, Procyon, Castor and Pollux, Saturn, Aldebaran, α and β Persei, Canopus.

Comet Machholz
(C/2004 Q2)

18X50ISb: Comet Machholz (C/2004 Q2) with possibly a very faint hint of a tail fanning out Eastward - in the constellation Cassiopeia, Pleiades, Hyades, areas of Orion such as λ Orionis, M42 area, R Lep area, M41, NGC 2244, S Mon and the "Christmas Tree asterism", M35, M36, M37, M38, M46, M47. Saturn

5:48-6:04 a.m. E.S.T.
10:48-11:04 UT

FL: la rai, S(8) T1 (1/p; mist + fog) ne; 18X50ISb

ne: moon about 2.7 h after Last Quarter, about 36° above the ESE horizon, amid the dense fog and mist. Vega was also seen in the NE. About 10 min. later, Jupiter was seen high in the S. and Arcturus near the zenith.

completely overcast. At about 03:32 UT end of the
 cloud cover disappeared. I was able to see
 the bright stars of Orion, Cass Major and Antares, also
 Procyon, Castor and Pollux, Caprus, Aldebaran, & end
 Betelgeuse, and Saturn in Gemini.

18x250: Comet Machholz (C/2004 Q2) in Cassiopeia
 with position very slight bit of a tail toward
 the E, also M1, M2, areas in Orion such as the
 2 Orionis area, Rigel area, Pleiades, Hyades

of Perseus Cluster, M32, M31, M3, M4, M5, M7, M13
 M42, M43, M56, M57, M82, M83, M84, M87
 M92, M100 and the Christmas Tree asterism.

18x250: Comet Machholz (C/2004 Q2) with position
 covering much of the sky. Bright stars: bright stars of
 Orion, Cass Major, Antares, Hyades, Procyon, Castor
 and Pollux, Saturn, Aldebaran, & end Betelgeuse,
 Caprus.

10:18 - 11:04 UT 2:48 - 3:04 UT
 18x250: Comet Machholz (C/2004 Q2) with position
 covering much of the sky. Bright stars: bright stars of
 Orion, Cass Major, Antares, Hyades, Procyon, Castor
 and Pollux, Saturn, Aldebaran, & end Betelgeuse,
 Caprus.

Comet Machholz
 (C/2004 Q2)

Comet Machholz
 (C/2004 Q2)

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18X5015b: The moon was seen amid the mist and fog. I did not see Mars or other objects below the moon in that part of the sky.

Th.-F. Feb. 3-4 03:10-04:10 UT FL: Ia S8(?) T4-6 (1/p; some cloud) ne; 18X5015b
ne: bright stars of Orion, Auriga, Canis Major, some of the bright stars of the constellation Leo in the E. ~~Situ~~ Procyon, Castor and Pollux, Aldebaran, Pleiades, α and β Persei, Saturn. After 03:50 UT, scattered clouds moved in from the W.

Comet Machholz
(C/2004 Q2)
and
Kemble's Cascade

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia, with perhaps a faint tail fanning out to the E., and at about mag. 4.9. Kemble's Cascade about 6° away from the comet; Pleiades, Hyades, areas of Orion such as 2 Orionis area, M42, M43, M41, M46, M47, area of R Lep, NGC 2244, S Mon and the 'Christmas Tree' asterism, M44, Saturn, M35, M36, M37, M38.

Clouds began to move in from the W. to parts of the sky at about 03:50 UT.

F.-S. Feb. 4-5 02:45-3:35 UT FL: Ia S9(?) T6 (1/p) ne; 18X5015b

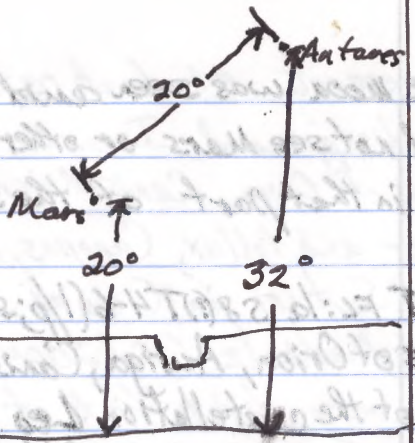
ne: bright stars of Orion, Auriga, and Canis Major, Procyon, Castor and Pollux, Saturn, Aldebaran, Pleiades, α and β Persei, some stars of constellation Leo in E.

Comet Machholz
(C/2004 Q2)
and
Kemble's Cascade.

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia, with very faint hint perhaps of tail fanning out to the E., Kemble's Cascade about 6 or 7 degrees from the comet; M35, M36, M37, M38, M41, M42, M43, M44, M45, M46, M47, area of R Lep, Saturn, NGC 2244 and S Mon and the 'Christmas Tree' asterism. M35 was at or very near the zenith.

← Vega

← Deneb
Altair



2005, Feb. 7, 11:16 UT View to E. showing Mars and Antares

18X2012b: Comet Meehals (C/2004 Q2) in Cassiopeia with prominent but tapered tail pointing out to the E. The E. Komet's Cascade about 6° away from the comet; M32, 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, 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S.-S. Feb. 5-6 02:30-04:00 UT FL: la SP(1)T 0-0.1 (almost completely ^{overcast}) ne

ne: Hoping to be able to see Comet Machholz (C/2004 Q2) I observed for 1.5 hours, but the sky was very cloudy, almost completely overcast, with a few occasional slight breaks in the cloud. I was able to see 2 or 3 stars in breaks in the clouds, one of the stars probably being Sirius.

S.-M. Feb. 6-7 04:35-05:35 UT FL: la SP(1)T 1-5 (1/p; clouds) ne; 18X50ISb

ne: Amid scattered clouds, I was able to see many of the stars of Orion, Saturn, Procyon, Castor and Pollux, Sirius, Regulus and perhaps a few other stars. Later in the session the clouds became more general and prevented viewing of most of the sky.

18X50ISb: area of M42, M41, M44, M35. I did not see Comet Machholz (C/2004 Q2) and many other objects.

6:12 - 16:18 a.m. EST.

11:12 - 11:18 UT FL: la nei twl ne

M.

- Mars and Antares and some stars of Scorpius in the E. Vega, Deneb, and Altair in the NE. (see diagram.)

M.-T. Feb. 7-8 01:21-02:51 UT FL: la SP(1)T 6 (1/p; very few ^{clouds}) ne; 18X50ISb

ne: bright stars of Orion, Auriga, Canis Major, Cassiopeia, also Procyon, Castor and Pollux, Saturn, Canopus, Aldebaran, some stars of Hyades, Pleiades, α and β Persei, some stars of constellation Leo in E.

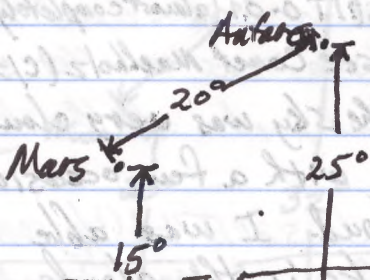
18X50ISb: Comet Machholz (C/2004 Q2) in the constellation Cassiopeia, with perhaps a very slight hint of a tail fanning toward the E, not far from the N. end of Kemble's Cascade which was seen; α Persei Cluster, Hyades,

Comet Machholz
(C/2004 Q2)

← Vega

← Deneb

• Altair



2005, Jan 8, 10:32 UT. View to E, showing Mars and Antares.

NE: And scattered clouds, I was able to see many of the stars of Orion, Saturn, Jupiter, Vega and Pollux, Sirius, Regulus and perhaps a few other stars. Later in the session the clouds became more general and prevented viewing of most of the sky.

18x2015b: view of M35, M41, M44, M32. I did not see Comet Munkit's (C/2004 Q4) and many other objects.

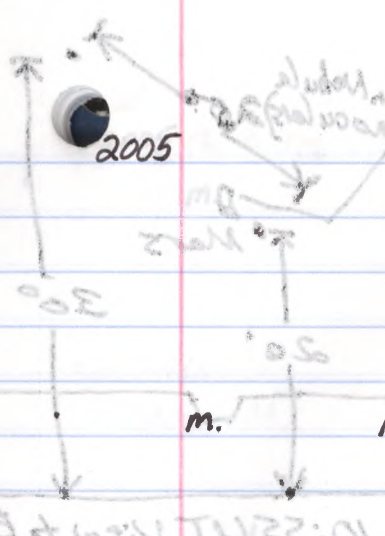
11:15 - 11:18 UT
 11:15 - 11:18 UT
 11:15 - 11:18 UT

- Mars and Antares and some stars of Scorpion in the E. Vega, Deneb, and Altair in the NE. (see diagram)

M-T Feb 7-8 01:51-02:21 UT
 NE: bright stars of Orion, Auriga, Cassiopeia, also many stars of Ursa Major, Ursa Minor, Alpheratz, some stars of Lyra, Hercules and Perseus; some stars of constellation in E.

18x2015b: Comet Munkit's (C/2004 Q4) in the constellation Cassiopeia, with perhaps a very slight hint of a tail pointing toward the E, not far from the N. end of handle. Handle which was seen; a fainter handle

Comet Munkit's (C/2004 Q4)



Pleiades, areas of Orion including γ Orionis area, area of M42, M43, area of R Lep, M46, M47, M41, M44, M35, M36, M37, M38, NGC 2244 and Simon and the Christmas Tree asterism,

Saturn.

5:30 - 5:45 a.m. E.S.T.
10:30 - 10:45 UT FL: lanai and by S9(2)T6(1/p) ne

- Mars in E.; bright stars of Scorpius including Antares (See diagram.) Vega, Deneb, and Altair in the NE; Big Dipper high in the N; bright stars of the Little Dipper in the N. Arcturus and some bright stars of Boötes high in the sky; Jupiter and Spica about 5° apart high in the S.; some bright stars of the constellation Leo high in the W.

Mars near Lagoon

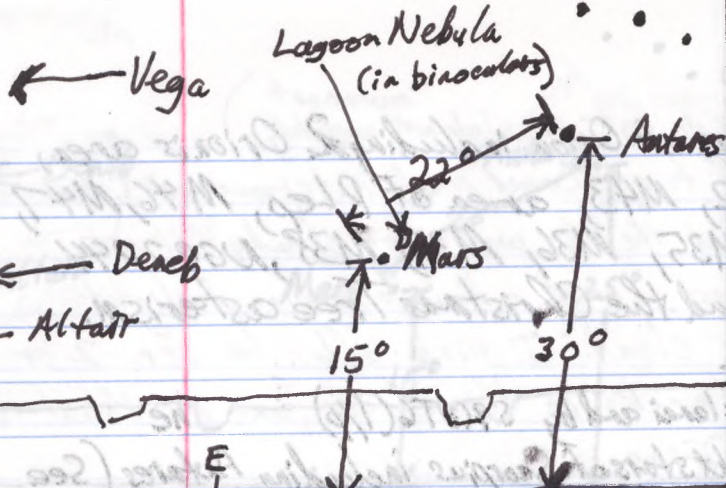
(At about 11:00 UT [6:00 a.m. E.S.T.]) I briefly viewed Mars less than 1 degree from the Lagoon Nebula - Observer's Handbook listed the distance at "0.6° N. of the Lagoon" at 2^h UT on March 8 - but the view through the screen of the lanai was not very good and I did not wish to go outside because the sprinkler system was running.)

T.W. Feb. 8-9 02:00 - 03:15 UT FL: la S8(2)T6(1/p) ne; 18X5015b

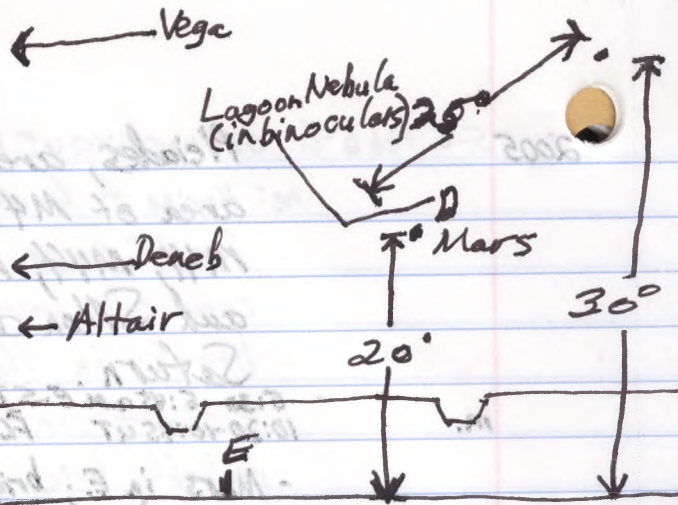
ne: bright stars of Orion, Auriga, Canis Major, Aldebaran, Pleiades, Procyon, Castor and Pollux, Saturn, a few stars of the constellation Leo in the E., α and β Persei.

comet Machholz (C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia not too far from the N. end of Kemble's Cascade and about mag. 5.2, very little, if any, of the comet's tail being visible - perhaps because of light pollution; Pleiades, Hyades, areas of Orion such as the area of γ Orionis, M35, M36, M37, M38, M42 and M43 and area, M44, M41, M46 and M47, NGC 2244, Simon and the Christmas Tree asterism, Saturn,



2005, Feb. 9, 10:35 UT. View to E.



2005, Feb. 10, 10:55 UT. View to E.

The Lagoon Nebula is a large, bright, and colorful nebula in the constellation of Sagittarius. It is one of the most prominent features in the sky during the winter months. The nebula is composed of gas and dust, and it is illuminated by the nearby star, Antares. The nebula is visible to the naked eye, but it is best viewed through a telescope or binoculars. The nebula is located about 7,600 light-years from Earth.

The Lagoon Nebula is a large, bright, and colorful nebula in the constellation of Sagittarius. It is one of the most prominent features in the sky during the winter months. The nebula is composed of gas and dust, and it is illuminated by the nearby star, Antares. The nebula is visible to the naked eye, but it is best viewed through a telescope or binoculars. The nebula is located about 7,600 light-years from Earth.

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2005

m.

area of Rlep, part, at least, of Kemble's Cascade.
 5:35 - 5:45 a.m. E.S.T.
 10:35 - 10:45 UT FL: lanai + by S9(?) T6 (1/p) ne; 18X5015b
 ne: Mars and Antares and some stars of Scorpius in E; the
 Summer Triangle of stars, Vega, Deneb and Altair in
 the NE.; the Big Dipper and Polaris and Kochab in
 the N.; Jupiter and Spica very high in the Sand
 about 5° apart.

Mars near Lagoon

18X5015b: Mars about 1° from E. edge of the
 Lagoon Nebula; Antares and some of the stars
 of the constellation Scorpius.

W-Th. Feb 9-10

01:55 - 03:00 UT FL: la S9(?) T6 (1/p) ne; 18X5015b
 ne: bright stars of Orion, Auriga, Canis Major, some stars
 of the constellation Leo in the E., Pleiades, Hyades,
 Canopus, Castor and Pollux, Saturn, κ and β Persei;
 Procyon.

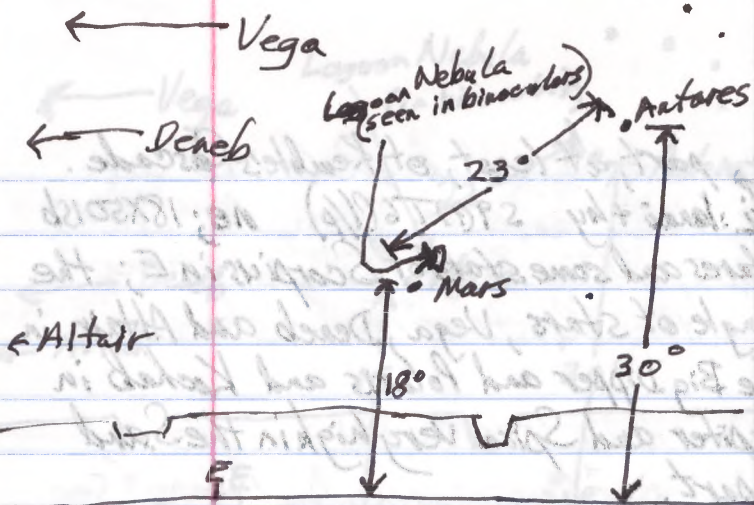
Comet Machholz
(C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in the
 constellation Cassiopeia, within about 8°
 or so of the northern end of Kemble's Cascade,
 M35, M36, M37, M38, M41, M42, M43, M44, M45, M46,
 M47, NGC 2244, δ Mon and the Christmas Tree
 asterism, M93, Saturn, Hyades.

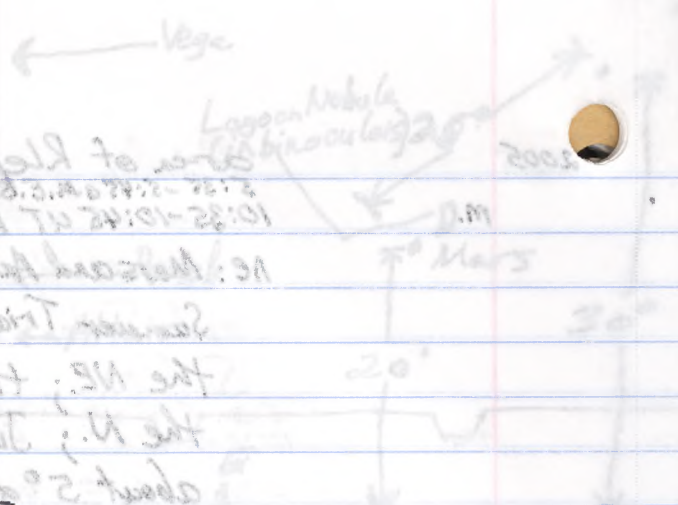
m.

5:51 - 6:01 a.m. E.S.T.
 10:51 - 11:01 UT FL: lanai twl ne; 18X5015b
 ne: Mars, Antares and some other stars of Scorpius
 in the E., some of the stars of the Big Dipper in
 the N., Polaris and Kochab in the N., Vega,
 Deneb, and Altair in the NE. (See diagram.)

18X5015b: Mars, Lagoon Nebula with Mars
 about 1½ degrees from the E. edge
 of the Lagoon Nebula; Antares and some
 of the stars of Scorpius.



2005, Jan. 11, 10:35 UT View to E.
and ESE.



W-11, 10:35-11:01 UT
 DE: Mars, Antares and some other stars of Scapria
 in the E, some of the stars of the Big Dipper
 the U. places and kicked in the U. (see diagram)
 Deneb and Altair in the NE. (see diagram)
 18X2025: Mars, Lagoon Nebula with Mars
 about 1.5 degrees from the E. edge
 of the Lagoon Nebula; Antares and some
 of the stars of Scapria.

18X2025: Caput Medusae (Closely Q2) in the
 constellation Cassiopeia, within about 8°
 or so of the eastern end of Kappa's Cassiopeids,
 M37, M38, M39, 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,
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 M997, M998, M999, M1000.

2005 Th.-F. Feb. 10-11 00:30-02:00 UT FL: Ia S9 T6 (1/p) ne; 18X5015b

ne: bright stars of Cassiopeia, Andromeda, Aries, Auriga, Orion, Canis Major, Castor and Pollux, Regulus, Canopus, Procyon, Saturn, young Crescent Moon

Comet Machholz
(C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia and about 10° from the northernmost end of Kemble's Cascade, with perhaps a slight hint of a tail fanning out eastward; Double Cluster in Perseus, Stock 2 - the "Muscleman Cluster", Kemble's Cascade, M31, M35, M36, M37, M38, M41, M42, M43, M44, M45, NGC 2244 and the "Christmas tree" asterism, areas of Orion such as α Orionis area, area of Rlep, area of RX Eri, M46, M47.

m.

5:27 - 5:37 a.m. E.S.T.

10:27 - 10:37 UT FL: Iaai + by S9 T6 (1/p) ne; 18X5015b

ne: Mars, Antares and some stars of Scorpius, some stars of Ophiuchus, bright stars of Cygnus, and of Lyra, with Vega, Deneb and Altair prominent in the NE; the Big Dipper high in the N, and Polaris and Kochab, Arcturus and bright stars of Boötes very high near the zenith, Jupiter very high in the S and about 6° from the star Spica. (See diagram for E. sky.)

18X5015b: Mars about 2° from the E. edge of the Lagoon Nebula, some of the stars of Scorpius and of Ophiuchus.

F.-S. Feb. 11-12 01:15-02:45 UT FL: Ia S9 T6 (1/p) ne; 18X5015b

ne: bright stars of Auriga, Orion, Canis Major; some stars of Cassiopeia, Aries, Andromeda, the constellation Leo in the E.; Castor and Pollux, Procyon, Canopus, Aldebaran; some stars of Lepus; Saturn.

18X5015b: Comet Machholz (C/2004 Q2) at about mag. 5.3 with perhaps a slight tail fanning out toward the E., and about 10° from the N. end of Kemble's Cascade;

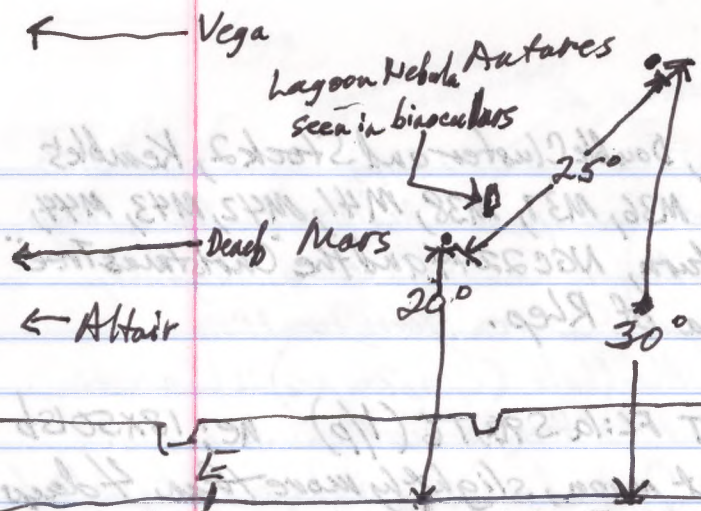
2005

Pleiades, Hyades, Double Cluster and Stock 2, Kemble's Cascade, M35, M36, M37, M38, M41, M42, M43, M44, M46, M47, Saturn, NGC 2244 and the 'Christmas Tree' asterism; area of Rlep.

S-S. Feb. 12-13 01:35 - 02:45 UT FL: Ia S9(1)T6 (1/p) ne; 18X5015b
ne: Thin crescent moon, slightly more than 4 days old in the W. sky above the roof of a house across the street in the first part of the observing session, with Earthshine clearly evident; bright stars of Andromeda, Cassiopeia, Aries, Taurus, Orion, Gemini, Canis Major, also Procyon, Canopus, Regulus in the E, Pleiades Saturn.

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia about 10 or 12 degrees from the northernmost end of Kemble's Cascade, with perhaps a hint of a tail fanning toward the E, and about at mag. 5.4; Kemble's Cascade, M31, M35, M36, M37, M38, M41, M42, M43, M44, M45, M46, M47, M93, Double Cluster and Stock 2 (the 'Muscleman Cluster') in ~~the~~ Perseus area of Rlep, NGC 2244 and Simon and the 'Christmas Tree' asterism.

S-M. Feb. 13-14 01:45 - 03:00 UT FL: Ia S8(1)T5-6 (1/p; cul) ne; 18X5015b
ne: Crescent Moon slightly more than 5 days old in the W. sky during the entire observing session; bright stars of Cassiopeia, at least 2 stars of Aries, bright stars of Orion, Gemini, Canis Major, also Procyon, Canopus, some stars of the constellation Leo in the E, Pleiades, Saturn; a fairly bright meteor in the SE going downward toward the horizon; some stars of Lepus.



2005, Feb. 14: View to the E. showing Mars and Antares.

observing superior with Earth's horizon clearly
 Evident; bright stars of Cassiopeia (Cassiopeia),
 Altair, Vega, Orion, Gemini, Canis Major,
 also Procyon, Canopus, Regulus in the E. horizon
 2005

18x50: (Cassiopeia) in Cassiopeia
 about 10 or 12 hours from the westernmost end
 of Kessler's Cascade, with perhaps a hint of a
 tail pointing toward the E. and about 1000 S.H.
 Kessler's Cascade, M31, M32, M33, M34, M35, M36, M37, M38, M39,
 M42, M43, M44, M45, M46, M47, M48, Double Cluster
 and 2nd 2 (the "Munich Cluster") in the
 case of K... the next day after the
 Christmas Eve's asterism.

2-M. Feb. 14 01:45-03:00 UT Feb. 14 2005 (1/1/05) ne: 18x50
 ne: (Cassiopeia) seen slightly more than 2 days old in
 the W. sky during the entire observing session;
 bright stars of Cassiopeia (at least 2 stars of Andromeda,
 bright stars of Orion, Gemini, Canis Major),
 also Procyon, Canopus, Regulus in the E. horizon
 too in the E. horizon, Saturn a tiny bright object
 in the SE going down toward the horizon?
 some stars of Lepus.

2005

Comet Machholz
(C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia, about 12° from the northernmost end of ~~the~~ ~~Kemble's~~ ~~Cascade~~, at about mag. 5.4; Pleiades, Hyades, Double Cluster and Stock 2 in Perseus; M31, M35, M36, M37, M38, M41, M42, M43, M44, M46, M47, M93; Saturn. NGC 2244 and S Mon and the Christmas Tree asterism; area of R Lep, Saturn.

m.

10:35-10:45 UT FL: larai & by SBT 5-6 (1/p) ne; 18X5015b
ne: Mars and Antares and some stars of Scorpius in E.; Vega, Deneb and Altair in NE; Big Dipper and 3 stars of the Little Dipper in the N.; ~~the~~ ~~Arcturus~~ Arcturus and some stars of Boötes very high near the zenith; Jupiter and Spica about 6° apart and south of the zenith; bright stars of the constellation Leo high in the W; some stars of Cygnus in the ~~the~~ NE. (See diagram.)
18X5015b: Mars about 4° from the Eastern end of the Lagoon Nebula.

M.-T. Feb. 14-15

01:10-02:10 UT FL: la SBT 5 (cml; 1/p) ne; 18X5015b
ne: Crescent moon slightly more than 6 days old about 55° above the SW horizon in the early part of the observing session; also bright stars of Auriga, Orion, Canis Major; also Castor and Pollux, Procyon, Saturn, Regulus, Aldebaran, Pleiades, bright stars of Andromeda, Canopus in the SE.

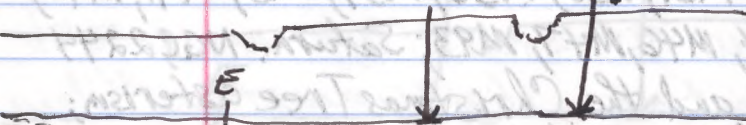
18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia perhaps about 12° from the N. end of Kemble's Cascade, with perhaps a faint hint of a short fanning tail toward the E.; also M31, M35, M36, M37, M38, M41, M42, M43,

← Vega

Lagoon Nebula
(in binoculars)

← Deneb

← Altair



2005, Feb. 15, 10:40 UT View to
the E.

Mars and Antares and some stars of Scapula in E. Altair, Deneb and Altair in NE. Big Dipper and stars of the Little Dipper in the N. Antares and some stars of Bootes visible near the south; Jupiter and Spica about 1/2 point and south of the south. Bright stars of the constellation are high in the W. some stars of Cygnus in the NE. (See diagram)

18x50sp Mars about 40 from the eastern end of the Lagoon Nebula.

M-T. Feb. 14-12 01:10-02:10 UT FL: 28075 (cm. 1/4) 18x50sp

Re: Current hour slightly more than 10:00 old about 25° above the SW horizon in the early part of the observing session; also bright stars of Auriga, Orion, Cassiopeia; also Castor and Pollux, Procyon, Saturn, Regulus, Aldebaran, Pleiades, bright stars of Andromeda, Capreae in the SE.

18x50sp: Comet Meehler (C/2004 Q2) in Cassiopeia perhaps about 12° from the N. end of Keckler's Cascade, with perhaps a faint link to a part forming tail toward the E.; 0:20

M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43

2005

m.

M44, M45, M46, M47, M93, area of Rlep, NGC 2244 and S Mon and the Christmas Tree asterism.
5:37 - 5:47 AM. E.S.T.
10:37 - 10:47 UT FL: lanai + by S8(PT)5 (1/p) ne; 18X5015b

ne: Mars and Antares and some stars of Scorpius in E.; Vega, Deneb, and Altair in NE, and bright stars of Cygnus; stars of Big Dipper and Polaris, Kochab, and γ UMi in the Little Dipper in the N.; Arcturus and bright stars of Boötes high near the zenith; and Jupiter and Spica very high in the S. and about 6° apart.
(See diagram.)

18X5015b: Mars and Lagoon Nebula about $4\frac{1}{2}^\circ$ apart in the E.

T.-W. Feb. 15-16 01:55 - 02:30 UT FL: la S8(PT)5 (fg. m; 1/p) ne; 18X5015b

ne: bright stars of Auriga, Orion, Canis Major, Castor and Pollux, Saturn, Procyon, Aldebaran, some stars of Lepus, bright moon just about 2 hours after First Quarter - listed as being at $0h 16m$ in the Observer's Handbook

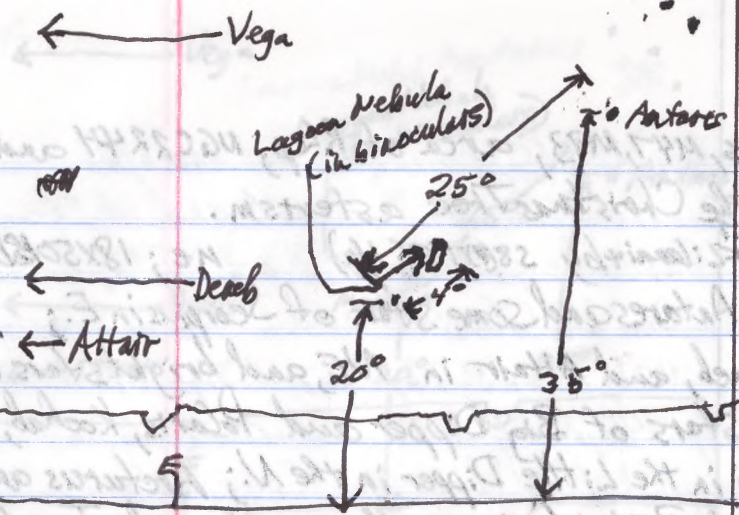
Comet Machholz
(C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia and fairly faint because of light pollution and the bright moon; also M41, M42, M43, M35, M36, M37, M38 NGC 2244 and S Mon and the Christmas Tree asterism; area of Rlep. Pleiades and lunar craters on the First Quarter Moon which was only 2° from the Pleiades.

m.

5:48 - 5:58 AM. E.S.T.
10:48 - 10:58 UT FL: la and by S8(PT)5 (tw; 1/p) ne; 18X5015b

ne: Mars and Antares and other stars of Scorpius in E.; Vega, Deneb, and Altair in NE; Big Dipper (and Polaris and Kochab) high in N.; Arcturus and other stars of Boötes very high near the zenith; Jupiter and Spica about 6° away - high in



2005, Feb. 16, 10:50 UT View to E

(see diagram.)
 18x50sp: Mars and Lagoon Nebula about 4.5° apart in the E.
 T-W. Feb 12-16 01:25-02:30 UT (4.5 min; 1/4) as 18x50sp
 No: light stars of Andromeda, Orion, Cassiopeia, Cygnus
 and Polaris. Saturn, Procyon, Altair, Mars, and Jupiter
 stars of Lagoon bright near just about 2 hours
 after First Quarter - lots of shooting stars
 in the Observer's Handbook
 18x50sp: Great Nebula (C/2004 Q2) in Cassiopeia
 and fairly faint because of light pollution
 and the bright moon. The light was
 M32, M37, M38, NGC 2297 and 2391
 and the Christmas Tree asterism; also
 of Regulus and lower centers on
 the First Quarter Moon which was only
 2° from the Pleiades.
 10:48-10:52 UT Feb 16 2005 (10:50) as 18x50sp
 No: Mars and Antares and other stars of Cygnus in E
 Vega, Deneb, and Altair in NE; Big Dipper and
 Pleiades and Kotel's 1st int.; Antares and other
 stars of Bootes very high near the zenith;
 Jupiter and Spica about 1° away - high in

2005

the S. (See diagram.)

18X5015b: Mars and the Lagoon Nebula about 4° apart; Antares and other stars of Scorpius and M4.

W.-Th. Feb. 16-17. 01:05-02:05 UT FL: Ia 58(?)T5 (gal; 1/p) ne; 18X5015b

ne: bright gibbous moon about 25 hours after First Quarter and about 8° from Aldebaran; bright stars of Orion, Auriga, Canis Major; Procyon, Saturn, Castor and Pollux, Aldebaran, α and β Persei, Regulus in the E; 2 meteors, one about

Comet Machholz (C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia and fairly faint because of the moonlight and the light pollution, but possibly a very slight hint of a very short tail toward the E; M35, M36, M37, M41, M42, M43, M44, M45, Hyades, area of R Lep, M93, M46, M47, NGC 2244 and S Mon and the "Christmas Tree" asterism.

* magnitude 3 in Eridanus - Taurus area, and one about mag. 0 in the Monoceros - Canis Minor area. The first one was going in approx. a westward direction, and the second one in approx. a east-southeastward direction.

5:43 - 5:53 a.m. E.S.T.

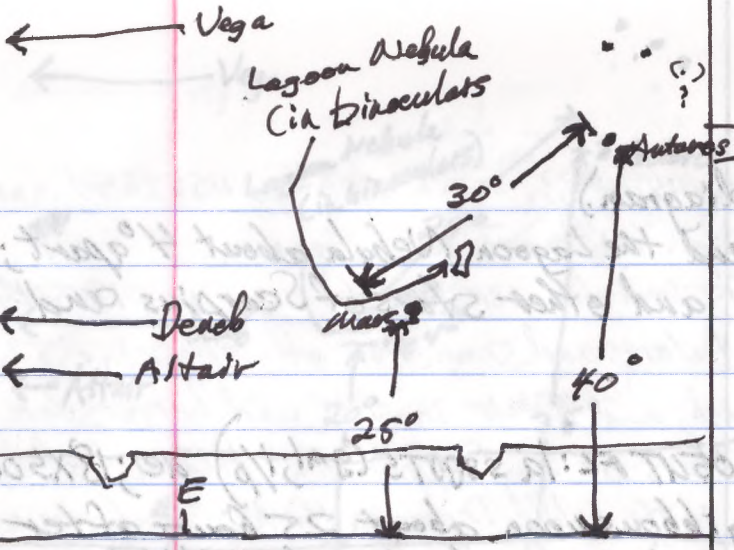
m.

10:43-10:53 UT FL: Ia 58(?)T1 (fog) ne

- With heavy fog from the horizon up to about 50 or 60 degrees, I saw only a few stars: Vega high in the NE, Arcturus near the zenith, Jupiter and Spica very high in the S.

Th.-F. Feb. 17-18 01:09-02:09 UT FL: Ia 58(?)T2-5 (gal; 1/p; Λ) ne; 18X5015b

ne: bright gibbous moon about 2 days and 1 hour after First Quarter and about 12° from



2005, Feb. 18, 11:05 UT View to
E

after First Quarter and about 15' from
bright stars near about 3rd and 4th
UT Feb 17-18 01:07-05:09 UT FL: 28(17) 29(17) 30(17) 31(17)
no: 18(17) 19(17) 20(17) 21(17) 22(17) 23(17) 24(17) 25(17) 26(17) 27(17) 28(17) 29(17) 30(17) 31(17)

Spice very rich in the 2.
the NE, Antares near the zenith, Jupiter and
60 degrees, I saw only a few stars: Vega high in
- With heavy fog from the horizon up to about 20 or
10:43-10:52 UT FL: 28(17) 29(17) 30(17) 31(17)
2:42-2:51 UT FL: 28(17) 29(17) 30(17) 31(17)

direction and the second one in opposite
area. The first one was going to appear in the
one about mid-C in the horizon-Cap-Mir
(* magnitude 3 in Endgame - Taurus area, and
"Christmas Tree" asterism.
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, 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2005

Aldebaran, Pleiades, α and β Persei, bright stars of Orion and Canis Major, Procyon, Saturn, Canopus, Capella. (C/2004 Q2)

Comet Machholz (C/2004 Q2)

18x5015b: Comet Machholz in Cassiopeia, somewhat faint because of the moonlight and the light pollution; M41, M42, M43, NGC 2244 and S Mons and the 'Christmas Tree' asterism; M93, area of R Lep; some of the stars of Keble's Cascade; Pleiades; Hyades.

M.

6:02-6:42 a.m. E.S.T.
11:02-11:12 UT FL: laai + by twl ne; 18x5015b

ne: Mars and Antares and some of the stars of Scorpius in the E; Vega, Deneb and Altair in the NE; some of the stars of the Big Dipper in the N; Acturus and some of the stars of Boötes near the zenith; Jupiter and Spica about 6° apart and high in the S.

18x5015b: Mars and the Lagoon Nebula about 6° apart.

F.-S. Feb. 18-19 01:10-02:00 UT FL: la S8(T)5 (gal; 1/p) ne; 18x5015b

ne: bright gibbous moon about 3 days past First Quarter and in the constellation Gemini, not far from the position of M35; α and β Persei; Aldebaran; Pleiades; bright stars of Orion, Auriga, and Canis Major; Saturn, Procyon, Canopus, Castor and Pollux, Regulus in the E.

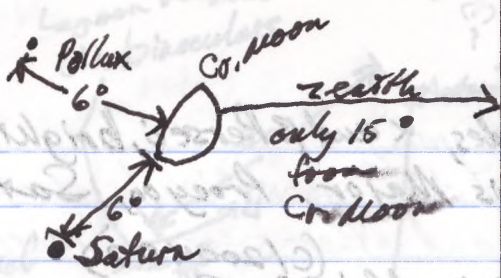
Comet Machholz (C/2004 Q2)

18x5015b: Comet Machholz (C/2004 Q2) in Cassiopeia but somewhat faint because of the moonlight and light pollution; M41, M42, M43, area of R Lep; M46, M47, M44, NGC 2244 and the "Christmas Tree" asterism; Pleiades; Hyades.

M.-T. Feb. 21-22 01:30-03:00 UT FL: la S8(T)5 (gal; 1/p) ne; 18x5015b

ne: bright gibbous moon in Gemini and about 6°

• Castor



2005, Feb. 20, 01:40 UT. Noon about 4 days after First Quarter, near Saturn and Pollux.

Feb 18-19 01:10-02:00 UT Feb 18 20:15 (day/1h) ne: 18x250p

ne: bright gibbous moon about 3 days past first quarter and in the constellation Gemini, not far from the position of M32, a dark galaxy.

Aldebaran; Rigel; bright stars of Orion, Arcturus, and Castor Major; Saturn, Procyon, Canopus, Castor and Pollux, Regulus in the E.

18x250p: Comet Meechik (C/2004 Q3) in Cassiopeia but somewhat faint because of the moonlight and light pollution; M41, M42, M43, one of the "Trifid" nebulae; M44; M55 and the "cluster" stars; M57; M58; M63; M64.

Feb 19-20 01:37-03:00 UT Feb 19 20:15 (day/1h) ne: 18x250p

ne: bright gibbous moon in Gemini and about 10

Comet Meechik (C/2004 Q3)

18x250p: Comet Meechik (C/2004 Q3) in Cassiopeia but somewhat faint because of the moonlight and light pollution; M41, M42, M43, one of the "Trifid" nebulae; M44; M55 and the "cluster" stars; M57; M58; M63; M64.

Feb 19-20 01:37-03:00 UT Feb 19 20:15 (day/1h) ne: 18x250p

ne: bright gibbous moon in Gemini and about 10

2005

from Pollux and 6° from Saturn and about 15° E. of the zenith at the beginning of the session and about 5° or less from the zenith at the end of the session; bright stars of Auriga, Orion and Canis Major, Procyon, α and β Persei, Aldebaran, Pleiades. (See diagram.)

Comet Machholz (C/2004 Q2)

18X5015b: Comet Machholz (C/2004 Q2) in Cassiopeia and about $12^\circ-14^\circ$ from the end of Kemble's Cascade of stars, ~~Pleiades~~, somewhat faint probably because of the bright moonlight and the light pollution; M36, M37, M41, M42, M43, M44, M45, M47. area of Rlep; NGC 2244 and ~~the~~ S Moons and the 'Christmas Tree' asterism.

S.-M. Feb. 20-21 01:20-02:10 UT FL: la S8UT 2-4 (Vp; gaul; ^{cloud} Considerable) ne; 18X5015b
ne: Amid extensive cloud, the bright gibbous moon, about 5 days after First Quarter; Sirius, Procyon seen at various times.

Comet Machholz (C/2004 Q2)

18X5015b: Amid considerable cloud, various areas of the sky could be seen by times: Comet Machholz (C/2004 Q2) was seen in Cassiopeia, but was somewhat faint because of the moonlight and light pollution; also some of the stars in the area of Kemble's Cascade; also the area of M42.

m. 5:44-5:45 a.m. E.S.T.
10:44-10:45 UT FL: laaa' twl ne
- Vega, Deneb and Altair in the NE; Mars in the E about 20° above the horizon and Antares in the SE about 30° above the horizon.

M.-T. Feb. 21-22 01:30-03:00 UT FL: la S8UT 1-4 (Vp; gaul, n) ^{cloud + haze} ne; 18X5015b
ne: with the bright gibbous moon in Cancer and in the E. sky and about 2 days before Full Moon,

• Center

• Blue

from blue and 1° from center and about 12°
E. of the center of the region of the session
and about 2° or less from the center of the end
of the session; bright stars of range 3000
and Cass Major, Procyon, and Rigel;

Aldebaran, Rigel, and Procyon (see diagram)
1825010: Comet Machholz (C/1982 Q1) in Cassiopeia
and about 15-20° from the end of Kender's Cascade
of stars; the comet is somewhat faint because
because of the bright sunlight and the light
pollution; M3, M4, M5, M7, M13, M14, M15,
M17, area of Reg; NGC 2234 and the 2 stars
and the Christmas Tree asterism.

Comet Machholz
(C/1982 Q1)

2-M. Feb 22-23 01:30-02:00 UT
E. of 2871-4 (light) in Cassiopeia; about
12° from the center of the region of the session,
about 2° or less from the center of the end
of the session; bright stars of range 3000
and Cass Major, Procyon, and Rigel;

1825010: Comet Machholz (C/1982 Q1) in Cassiopeia
and about 15-20° from the end of Kender's Cascade
of stars; the comet is somewhat faint because
because of the bright sunlight and the light
pollution; M3, M4, M5, M7, M13, M14, M15,
M17, area of Reg; NGC 2234 and the 2 stars
and the Christmas Tree asterism.

Comet Machholz
(C/1982 Q1)

2-M. Feb 22-23 01:30-02:00 UT
E. of 2871-4 (light) in Cassiopeia; about
12° from the center of the region of the session,
about 2° or less from the center of the end
of the session; bright stars of range 3000
and Cass Major, Procyon, and Rigel;

1825010: Comet Machholz (C/1982 Q1) in Cassiopeia
and about 15-20° from the end of Kender's Cascade
of stars; the comet is somewhat faint because
because of the bright sunlight and the light
pollution; M3, M4, M5, M7, M13, M14, M15,
M17, area of Reg; NGC 2234 and the 2 stars
and the Christmas Tree asterism.

Comet Machholz
(C/1982 Q1)

2005

I observed the moon with a 22° radius circle around it, as well as the bright stars of Orion, Aldebaran, the Pleiades, ~~the~~ ^{some} bright stars of Canis Major; Capella; Procyon; Saturn; and within the circle around the moon, the ~~the~~ stars Castor and Pollux.

18X5015b: looked for ~~the~~ Comet Machholz (C/2004 Q2) but was certainly not sure of seeing it and most likely did not see it, because of the light pollution, the moonlight, ^{and} the haze and/or cloud in the atmosphere; also Pleiades, Hyades, areas of Orion; area near R Lep; M42 and nearby area; area near the α Persei Cluster; area near Keblet's Cascade.

m.

5:31 - 5:41 a.m. E.S.T. FL: knai S(☉)T (generally cloudy; 1/p) ne; 18X5015b

10:31 - 10:41 UT ne: Amid generally cloudy conditions I saw one star, Vega in the NE.

18X5015b: the bright stars of Lyra, including Vega, high in the NE.

T.-W. Feb. 22-23 01:05 - 02:35 UT FL: la SBBT 1-4 (1/p; 9m; 1/p) ^{considerable cloud} ne; 18X5015b

ne: very bright gibbous moon, very close to Full Moon, listed as being about 27 hours hence at 4h54m on Feb. 24; bright stars of Orion, Capella, Aldebaran, Sirius, Procyon, Saturn, Castor and Pollux.

18X5015b: - did not knowingly see Comet Machholz, mainly because of the clouds; Hyades, Pleiades, M41 M42 and area and other areas in Orion; Saturn, Castor and Pollux, α Persei Group of stars; lunar craters on a moon that appeared close to Full Moon.

m.

5:49 - 5:54 a.m. E.S.T. FL: knai & by twl; scattered cloud ne

10:49 - 10:54 UT - Vega, Deneb and Altair in the NE; Arcturus high near the zenith; Jupiter and Spica ~~Very~~ high in the S.; ~~the~~ moon appearing near Full about 10° above the W. horizon.

I observed the moon with a 2.5-inch cross diameter
 as well as the bright stars of Orion, Aldebaran, the
 Pleiades, the bright stars of Cassiopeia, Capella,
 Procyon, Saturn; and within the circle around the
 moon, the stars Castor and Pollux.

1820: looked for the Great Magellanic (Magellanic)
 Cloud but was certainly not sure of seeing it and not
 likely did not see it, because of the light pollution
 the brightness of the stars and the clouds in the

atmosphere: the Pleiades, Procyon, stars of Orion,
 stars near Rigel, M4 and nearby stars; stars
 near the 4 stars: Castor; stars near the 4 stars.

10:01-10:10 AM: F: time 2:11 (generally cloudy); 1/4; 1820:20
 re: find a general description I saw on star
 Vega in the NE.

1820: the bright stars of Orion, including Vega
 high in the NE.

T-W. Feb 23-23 01:02-01:12 AT F: 2827T-4 (1/18/21) re: 1820:20

re: very bright gibbous moon, very close to full moon,
 listed as being about 27 days old at 11:54 on
 Feb 23, bright stars of Orion, Capella, Aldebaran,
 Sirius, Procyon, Saturn, Castor and Pollux.

1820:20 - did not know how to see Great Magellanic Cloud
 because of the clouds. Pleiades, Procyon, M4
 M4 and stars and other stars in Orion, Saturn,
 Castor and Pollux, 4 stars group of stars;
 four stars in a row that appeared close to

Full Moon
 10:44-10:54 PM: F: time 2:11 (generally cloudy); 1/4; 1820:20

- the moon and stars in the NE; Saturn high in the
 NE; Jupiter and Spica high in the NE.
 The moon appearing near full about 10:00 AM in W. horizon.

2005 W.-Th. Feb. 23-24 01:40-03:00 UT FL:la S8(?)T5 (1/p; fm) ne; 18X501sb

ne: bright stars of Orion, Auriga, and Canis Major; Aldebaran, Pleiades, α and β Persei, Procyon, Saturn, Castor and Pollux, Full Moon high in the E. near the Leo-Cancer border (the time of Full Moon listed as Feb. 24 at 4:54 UT)
18X501sb: looked for but did not knowingly see, Comet Meeholtz (C/2004 Q2); α Persei Cluster of stars, area of Kenble's Cascade, areas of Orion, M41, M42, area of R Lep, Pleiades, Hyades, NGC 2244; SMOA and the 'Christmas Tree' asterism, M35 (which was very near the zenith at the end of the session), M36, M37, M47, craters on the Full Moon.

Th.-F. Feb. 24-25 04:35-04:45 UT FL:la S8 T2 (1/p; fm; many) ne
- After returning from the monthly meeting of the Everglades Astronomical Society in Naples, a meeting at which Denise gave a good talk about Mithraism and Precession, I briefly observed in spite of the clouds which were fairly widespread. Among the many clouds I observed the Full Moon in the constellation Leo, the moon being almost exactly 24 hours after Full (which was listed as being at 4^h 54^m on Feb. 24th). Saturn, Castor and Pollux, Procyon, Sirius, the following stars in Orion: Betelgeuse, Bellatrix, Saif, Rigel, Alnilam, Alnitak, and Mintaka; also Aldebaran, and Capella.

Su.-M. Feb. 27-28 01:45-02:35 UT FL:la S(?)T0.5 (99% overcast) ne; 18X501sb
ne: for a short while after the beginning of the

W. Feb 23-24 01:40-03:00 OUT Fila 28712 (14; 14; 14) no; 1825012

MS: bright stars of Orion, Auriga and Cassiopeia;
Aldebaran, Rigel, & Antares; Procyon,
Saturn, Castor and Pollux, Full Moon visible
the E. near the low-Campana border (the

time of Full Moon listed as Feb 24 at 4:24 UT)
1825012: looked for but did not know anyone
Const. Mollis (gamma 2); a large; cluster
of stars near of Kometes Cassiopeia,

west of Orion, M41, M42, crescent
Rigel, Pleiades, stars, M42, M43;
M32 and the 'Christmas tree' star
M32 which was very near the south
at the end of the season; M31, M37,
M47, clusters on the Full Moon.

Tu-F. Feb 24-25 04:37-04:42 Fila 28713 (14; 14; 14) no

- After returning from the night's meeting at
the European Astronomical Society in Paris a meeting
at which Jones gave a good talk about Mithras
and Precession, I briefly observed in spite of

the clouds which were fairly widespread, but
the main clouds I observed the Full Moon in
the constellation Leo, the moon being almost
exactly 2 hours after full (which was later

on being of 4^h 24^m on Feb 24th Saturn,
Castor and Pollux, Procyon, Sirius, the following
stars Orion: Betelgeuse, Bellatrix, Saiph,
Rigel, Alnilam, Alnilatim and Mataraka; also

Aldebaran, and Capella.

Su-M. Feb 27-28 01:42-02:32 Fila 28710 (10; 10; 10) no; 1825012

MS: for short while after the beginning of the

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session, I saw a few objects amid the clouds, namely, Sirius, Procyon, Saturn, and another star or two possibly, but the sky was generally very cloudy.
18x50ISB: Sirius and β Canis Majoris, ~~Saturn~~ Saturn, Procyon, a star or two in the area of Castor and Pollux.

M.-T. Feb. 28-Mar. 1 03:30-04:10 UT FL: Ia S8(T)4 (1/p; \nearrow) ^{scattered cloud} ne; 18x50ISB
ne: bright stars of Orion, Sirius, Procyon, Castor and Pollux - just W. of the zenith) Saturn, some stars of the constellation Leo high in the E., Jupiter low in the E., Capella, Aldebaran
18x50ISB: - did not see the Comet Machholz (C/2004 Q2), but did see M41, M42, M35, M36, M37, NGC 2244, S Mon and the Christmas Tree asterism, Hyades, Saturn, Jupiter

T.-W. Mar. 1-2 01:30-02:15 UT FL: Ia S8(T)1 (1/p; 98% overcast) ne; 18x50ISB
ne: In spite of clouds making the sky 98% overcast, I saw a few stars amid the clouds, namely Sirius, Procyon, Betelgeuse, the 3 belt stars of Orion, and the planet Saturn.
18x50ISB: Sirius, Saturn, the 3 belt stars of Orion, M47 - E. of Sirius.

5:28 - 5:48 am E.S.T.
m. 10:28-10:48 UT FL: Ia mix by S(T)1 (1/p; 98% overcast) ne; 18x50ISB
ne: Because of the sky being 98% overcast, I saw only a few objects: Vega high in the NE amid the clouds, the moon near Third Quarter high in the SE, and another star near the zenith.
18x50ISB: Vega and another star high in the NE.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

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18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

18x50sp: Sirius and Betelgeuse, Saturn, Jupiter, and a few other stars in the area of Cassiopeia and Perseus. The sky was generally very cloudy.

2005 W.-Th. Mar. 2-3 01:40-02:30 UT FL:la S8(?) T0-3 (1/p; clouds) ne; 18X50 ISb

ne: At the beginning and at the end of the session, the cloud cover was at or about 100%, but in between there were periods of time when some stars could be seen. Objects seen included Castor and Pollux, Procyon, Saturn, Sirius, Betelgeuse, Capella, α and β Persei.

18X50 ISb: Belt stars of Orion, M41, M42 and its area in Orion, M93.

5:15 - 5:35 a.m. E.S.T.

10:15 - 10:35 UT

5:45 - 6:05 a.m. E.S.T.

and 10:45 - 11:05 UT

FL: knai + by S(?) T0

ne

Lunar Occultation of Antares clouded out!

Hoping to be able to observe the lunar occultation of the star Antares in the SE sky, I observed for two periods of 20 minutes each, but had overcast skies, completely or almost totally overcast. I thought for a brief instant that I saw one star, but I was not sure of that. For a few minutes after 10:45 UT I was able to see an outline of the moon among the clouds, or to be able to tell where it was. Even that was not possible later on. I had hoped to be able to observe and make drawings of the moon and Antares at 10:26 UT (5:26 a.m. E.S.T.), 10:36 UT (5:36 a.m. E.S.T.), 10:46 UT (5:46 a.m. E.S.T.), and 10:56 UT (5:56 a.m. E.S.T.), the last one being the scheduled time of the disappearance.

F.-S. Mar. 4-5 02:20-03:50 UT FL:la S8 T2-6 (1/p; some cloud) ne; 18X50 ISb

ne: Saturn, Jupiter, some stars amid clouds at the beginning, but later with clearing skies, many stars were seen: bright stars of Orion, Cassiopeia Major, Auriga, and the constellation Leo, Castor and Pollux, Procyon, Aldebaran.

18X50 ISb: Saturn, Jupiter in the E., areas of Orion, M35, M36, M37, M38, M41, M42, areas of Orion, M93, NGC 2244 and S Mon and the Christmas Tree

2002 Mar 2-3 01:40-02:30 UT (8:10-9:10 AM) File: 182512b

At the beginning and at the end of the session, the cloud cover was at or about 100% but in between there were periods of time when some stars could be seen. Objects seen included Castor and Pollux (Alpha and Beta Orion), Saturn, Venus, Betelgeuse, Capella, Rigel, and its

182512b: Best stars of Orion, M41, M42, and its over in Orion, M3.

File: 182512c
Hoping to be able to observe the lunar occultation of the star Antares in the 2nd sky, I observed for two periods of 30 minutes each but had overcast skies completely or almost totally overcast. I thought for a brief instant that I saw one star but I was not sure of that. For a few minutes after 10:20 UT I was able to see an outline of the moon among the clouds, but I was not able to tell where it was. Even that was not possible later on. I had hoped to be able to observe and make drawings of the moon and Antares at 10:25 UT (2:35 AM EST), 10:30 UT (2:40 AM EST), 10:40 UT (2:50 AM EST), and 10:50 UT (3:00 AM EST) the last one being the scheduled time of the disappearance.

Clouded out.
Occultation of Antares!
Lunar occultation

File: 182512d
182512d: Saturn, Jupiter in the E. corner of Orion, M32, M37, M38, M41, M42, more of Orion, M31, M35, M44 and the Crab Nebula.

File: 182512e
182512e: Saturn, Jupiter, some stars and clouds at the beginning but later with clouding skies many stars were seen: bright stars of Orion, Rigel, Saiph, and the

2004

asterism, areas of the constellation Leo, & Persei cluster of stars.

S.-S. Mar. 5-6 03:25-04:05 UT FL: Ia S8(?) T1-4 (1/p; varying ^{cloud cover}) ne; 18X5015b
ne: Amid varying amounts of cloud cover, I saw the bright stars of Orion, Castor and Pollux, Saturn, Procyon, Sirius, Jupiter in the E., Capella.
18X5015b: M42 and areas of Orion, M41, M35, NGC 2244 and the Christmas Tree asterism, M93

S.-M. Mar. 6-7 01:50-02:30 UT FL: Ia S8(?) T5 ne; 18X5015b
ne: bright stars of Orion, Canis Major, Aldebaran, Procyon, Castor and Pollux, Saturn, α and β Persei, some bright stars of the constellation Leo in the E.
18X5015b: areas of Orion, M42, area of R Lep, M41, M46, M47, M93, M35, M36, M37, M38, M44, areas of the constellation Leo, α Persei Group of stars, Kemble's Cascade.

M.-T. Mar. 7-8 04:30-04:40 UT FL: Ia S8(?) T5-6 (1/p; some cloud) ne
- bright stars of Orion, Castor and Pollux, Saturn, Sirius, Procyon, some stars of the constellation Leo high in the E., Aldebaran, some of the stars of Auriga, Jupiter in Virgo in the E.

T.-W. Mar. 8-9 02:05-02:55 UT FL: Ia S8(?) T2-6 (1/p; scattered ^{cloud}) ne; 18X5015b
ne: bright stars of Orion, Canis Major, Auriga, and the constellation Leo high in the E., Procyon, Castor and Pollux, Saturn, Aldebaran, Jupiter in Virgo in the E.
18X5015b: M42 and area, areas of Orion, α Persei Cluster of stars, Hyades, Pleiades, M35, M36, M37, M38, M41, M44, NGC 2244 and S Mon and

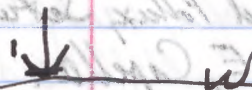
39 hour old

← Crescent moon



about 25°

← Mercury



2005, Mar. 11-12 23:50-2355 UT
View to W. from Bonafish Restaurant.

2005

the Christmas Tree asterism, M46, M47, M93, Saturn, Jupiter, area of R Lep.

m. 5:49-5:54 a.m. P.S.T.
W-Th. Mar. 9-10 10:49-10:54 UT FL: lanai twl ne

- Vega, Deneb, and Altair well up in the NE; Mars fairly bright in the E. and up about 25° above the horizon.

and 02:50-03:40 UT
Th.-F. Mar. 10-11 01:20-01:50 FL: la S8(JT) 3-6 (1/p; some cloud) ne; 18X5015b

ne: bright stars of Auriga, Orion, and Canis Major, Saturn, Jupiter, Aldebaran, Pleiades, Procyon, Castor and Pollux, bright stars of constellation Leo in the E.

18X5015b: Pleiades, Hyades, M42 and area, NGC 2244 and the Christmas Tree cluster including S Mon, M35, M36, M37, M38, M46, M47, M93, Jupiter, Saturn, M44

F.-S. Mar. 11-12 * 02:00-02:50 UT FL: la S8(JT) 1-6 (varied from cloudy to clear) ne; 18X5015b

ne: With the sky very cloudy I saw only a few stars at first but later had a clear sky to see many more objects: brightest stars of Orion, Auriga, and Canis Major, Castor and Pollux, Saturn, Jupiter in the E., some stars of the constellation Leo

18X5015b: M42 and nearby area in Orion, the area of R Leonis, NGC 2244 and S Mon and the Christmas Tree asterism, M35, M36, M37, M38, M44, M45, M46, M47, M93, Jupiter and 3 of its Moons (not Io), Saturn, area of M 65

* EARLIER: 2350-23:55 UT FL: Bonita Springs ^{Bonafish Restaurant} twl ne

Along with Denise and Paul Allen and Suzanne and 4 guests of theirs we observed the 39 hour old Crescent Moon and Mercury in the W. in twilight. (See diagram.) later at home we also saw these two objects

Mercury



Crescent Moon
about 2 1/2 d. old

↑
about 35°

Mercury

↑
about 10°

W 00:10
2005, Mar. 12-13 View to West
as seen from Wrentham in E. State
showing the Crescent Moon and Mercury.

Mercury

2003 Sa-Su, Mar. 12-13* 01:50-02:30 UT FL: Ia S8(PT)6 (1/p) ne; 18X50 ISb

ne: bright stars of Auriga, Orion, Canis Major, Procyon, Saturn, Castor and Pollux, Aldebaran, Pleiades, α and β Persei, some stars of the constellation Leo in the E.

18X50 ISb: Hyades, Pleiades, α Persei Cluster of stars, Saturn, areas of Orion, M42, M35, M36, M37, M38, M44, M46, M47, M93, area of R Lep, area of R Leonis, NGC 2244 and S Mon and the Christmas Tree cluster of stars, M41.

* EARLIER: 00:10 UT Wendy's Restaurant ^{in Estero on Hwy 41} twl ne

Denise and I saw the crescent moon which was slightly more than $2\frac{1}{2}$ days old and the planet Mercury in the W. sky during twilight.
(See diagram.)

Mercury.

S-M, Mar. 13-14 02:10-03:00 UT FL: Ia S8(PT)3 (clouds) ne; 18X50 ISb

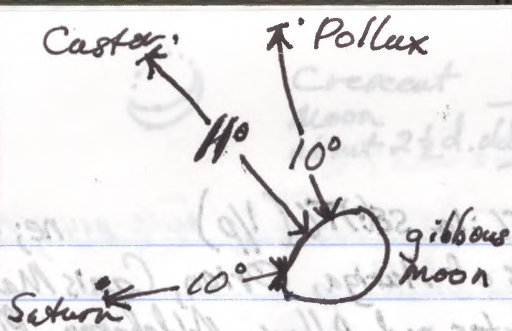
ne: bright stars of Orion and Canis Major, Procyon, Saturn, Castor and Pollux, Capella, Jupiter in the E.

18X50 ISb: area of M42, other areas in Orion, Saturn, Castor and Pollux, NGC 2244 and S Mon and the Christmas Tree asterism, Jupiter in the E.

M-T, Mar. 14-15 01:55-02:55 UT FL: Ia S8(PT)2-4 (1/p; clouds, curl) ne; 18X50 ISb

ne: $4\frac{1}{2}$ -day-old crescent moon in the W, bright stars of Orion, Capella, Sirius, Procyon, Saturn, Castor and Pollux, some stars of constellation Leo, Jupiter in the E near the end of the session. Haze and water vapour in the air were problems.

18X50 ISb: lunar craters of the crescent moon,



2005, Mar. 19 03:45 UT High in the W, about 60° above the horizon

* EARLIER: 03:10 UT
 I saw the crescent moon which was slightly more than 2.5 days old and the planet Mercury in the W. sky during twilight. (See diagram.)

2-M. Mar. 13-14 03:10-03:00 UT
 No: bright stars of Orion and Cassiopeia, Procyon, Saturn, Castor and Pollux, Capella, Jupiter in the E.

2-M. Mar. 13-14 03:10-03:00 UT
 Saturn, Castor and Pollux, Jupiter and the Christmas tree asterism, Jupiter in the E.

M.F. Mar. 14 01:23-01:35 UT
 No: 4.5-day-old crescent moon in the W. bright stars of Orion, Capella, Sirius, Procyon, Saturn, Castor and Pollux, some stars of constellation Leo, Jupiter in the E. near the end of the season. Thus and water vapour in the air were problems.
 18X2012P: Jan. Castor of the crescent moon.

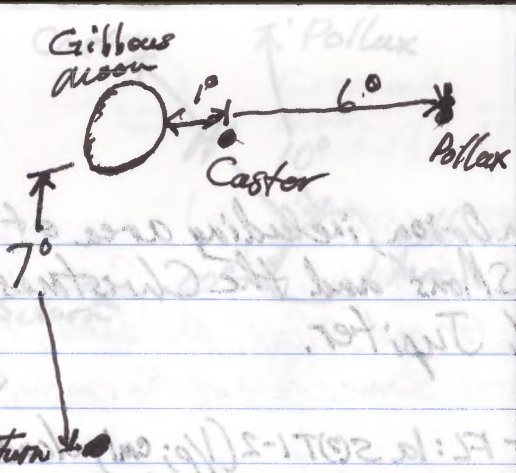
2005

Saturn, arcasin Orion, including area of M42, NGC2244 and S Mons and the Christmas Tree asterism, M44, Jupiter.

T.-W. Mar. 15-16 02:30-03:00 UT FL: la S(?)T1-2 (1/p; cm); clouds ne
- Amid the clouds I saw a few bright objects:
the 5½-day-old crescent moon about 40° above the W. horizon, Saturn and Castor and Pollux very high and near the zenith, Sirius, and Procyon, and Betelgeuse.

W.-Th. Mar. 16-17 02:30-03:00 UT FL: la S(?)T4 (1/p; some cloud; cm) ne; 18X50ISB
ne: 6½-day-old crescent moon well up in the W., Saturn, Castor and Pollux high near the zenith, brightest stars of Orion, Sirius, Procyon, some stars of the constellation Leo very high in the E., Jupiter in the E.
18X50ISB: lunar craters on the crescent moon, Jupiter and 3 of the Galilean moons, area of M42 in Orion, NGC2244, M44, M47. Extensive clouds prevented observing many other objects.

F.-S. Mar. 18-19 03:30-04:00 UT FL: la S(?)T4-5 (1/p; gm) ne; 18X50ISB
ne: 8½-day-old gibbous moon in Gemini about 11° and 10° from the stars Castor and Pollux and about 10° from Saturn (See diagram), Sirius, bright stars of Orion and of the constellation Leo high in the E., some stars of Auriga, Aldebaran
18X50ISB: some regions in the constellation Orion, area near M42, NGC2244 and S Mons and the Christmas Tree asterism, M41, M44, Jupiter and three of the



2005, Mar 20 02:00 UT Saturn in Gemini near the zenith.

7-2. Mar 19 03:30-04:00 UT
 No. 8.5 day-old gibbous moon in Gemini about 11° and 10° from the stars Castor and Pollux and about 10° from Saturn (see diagram).
 Some stars of Auriga, Alabaster, and some stars of Orion in the constellation Orion are near M45, the Great and 2 Mon and the Christmas Tree asterism, M41, M42, Jupiter and three of the

W-T. Mar 16-17 02:30-03:00 UT
 No. 10 day-old crescent moon well up in the W. Saturn, Castor and Pollux high near the zenith.
 Brightest stars of Orion, Sirius, Procyon, some stars of the constellation Leo very high in the E. Jupiter in the E.
 M45 in Orion, M43, M42, M41, Extrema clouds prevented observing many other objects.

7-4. Mar 12-16 03:30-04:00 UT
 And the clouds I saw a few bright objects.
 the 2.5 day-old crescent moon about 40° above the horizon.
 W. horizon, Saturn, Castor and Pollux high near the zenith.

2005

Galilean moons, some areas of the constellation Leo.

Sa-Sun Mar. 19-20 01:50-03:40 UT FL: la S(?) T 5 (1/p; 9m) ne; 18x5015b; ^{25, 12, 9, 12, 12, 12, 12, 12}
ne: bright stars of Orion, and Castor Major, some stars ~~and~~
of Auriga and of the constellation Leo in the E, Jupiter
and Spica in the E, gibbous moon near Castor and
Pollux near the zenith (See diagram.)

18x5015b: M41, M42 and nearby area of Orion, M44,
M47, M36, NGC 2244 and SMOAS and the
Christmas tree asterism, 2 Orions and other
areas in Orion, Hyades.

12 1/2": M42 including the Trapezium, Saturn and
Titan, Jupiter and the 4 Galilean moons
(observed with the 32mm, 25mm, 12mm and
9mm oculars at 47.7, 61, 127.1 and 169.4X)

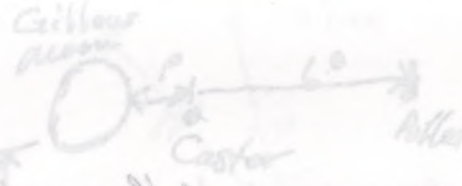
S-M, Mar. 20-21 01:55-02:15 UT FL: la S(?) T 0.1 (1/p; ^{completely overcast} almost n) ne; 18x5015b
ne: occasional glimpses of the outline of the gibbous
moon amid the clouds.

18x5015b: glimpses of the outline of the
gibbous moon through the clouds.

M-T, Mar. 21-22 01:35-01:55 UT FL: la S(?) T 0.1 (1/p; very cloudy) ne; 18x5015b
ne: Moon (gibbous) high in the E., seen through hazy
clouds, Sirius and Procyon seen for a while
amid the clouds

18x5015b: Lunar features seen through the hazy
clouds; Sirius and β CMa seen among
the clouds; Procyon and β CMi also seen among
the clouds.

T-W, Mar. 22-23 02:20-03:20 UT FL: la S(?) T 0.5 (1/p; very cloudy) ne; 18x5015b
ne: Amid the clouds, I was able by times to see the



T-W, Mar 22-23 05:00-03:20 UT File 26170.2 (1/1; Verapond) ne; Mars
 ne: And the clouds, I was able to see the

18x2025b: Lunar features seen through the haze
 clouds; Sirius and RCM seen among
 the clouds; Procyon and RCM also seen among
 the clouds
 ne: Moon (high) high in the E, seen through haze
 clouds; Sirius and Procyon seen through haze
 and the clouds
 M-T, Mar 21-22 01:32-01:23 UT File 26170.1 (1/1; Verapond) ne; Mars

18x2025b: glimpses of the outline of the
 gibbons seen through the clouds.
 ne: Occasional glimpses of the outline of the gibbons
 seen among the clouds
 2-M, Mar 20-21 01:22-02:10 UT File 26170.1 (1/1; Verapond) ne; Mars

Periapsis at 4.7, al, 12.1 and 18.4 X
 (observed with the 35mm, 25mm, 15mm and
 Titan, Jupiter and the H Galileo moons
 13°: M45 including the Trapezium, Zosma and
 areas in Orion, Hyades.
 Christmas tree asterism, 2 Uris and other

M47, M36, M43, M37 and M38 and the
 18x2025b: M41, M42 and nearby area of Orion, M47,
 Pollux near the zenith (see diagram).
 and 2° in the E, gibbons seen near Cassini and
 of Auriga about the constellation Leo in the E. Jupiter
 ne: bright stars of Orion, and Cassini major, some stars
 2-M, Mar 19-20 01:20-03:40 UT File 26170.2 (1/1; Verapond) ne; Mars

Galileo-moons some cross of the constellation Leo.

2005

outline of the bright gibbous moon and about $3\frac{1}{2}^{\circ}$ S. of it the star Regulus. Both were about 10° to 15° E. of the zenith. Also seen were Castor and Pollux and Saturn, Sirius, ^{and} Procyon.

18X5015b: lunar features through the clouds and amid breaks in the clouds; Regulus, Procyon and β CMi, Saturn, Castor and Pollux, Sirius.

F.-S. Mar. 25-26 02:15-02:45 UT FL: 1a S8(PT)2 (1/p; fml; very cloudy) ne; ^{18X5015b} n
ne: Full Moon about 40° above E. horizon; Jupiter about 6° below the moon; Sirius, Procyon, Saturn; Castor and Pollux; Betelgeuse, Capella.

18X5015b: area of M42; Belt Stars of Orion; Sirius and area; Procyon and β CMi; lunar craters seen through clouds, Jupiter; Betelgeuse and area of λ Orionis.

S.-S. Mar. 26-27 02:50-03:20 UT FL: 1a S8(PT)2-3 (1/p; fml; ^{very cloudy} n) ne; ^{15b} 18X5015b
ne: bright moon about 30 hours after Full Moon (which was on Mar. 25 at 20:58 UT) seen about 30° above the E. horizon, Jupiter about 10° above the moon, Sirius, Procyon, Saturn, Castor and Pollux, Betelgeuse.

18X5015b: lunar craters seen through the hazy clouds, Jupiter, Sirius and area, Procyon and area, Saturn, Castor and Pollux, area of Betelgeuse.

S.-M. Mar. 27-28 03:00-03:40 UT FL: 1a S8(PT)2-3 (1/p; gml; very cloudy) ne; 18X5015b
ne: gibbous moon in the E. below Jupiter and Spica; Arcturus in the NE., Sirius, Procyon, Saturn, Castor and Pollux, Belt Stars of Orion, Betelgeuse, Capella, Regulus and some other stars of the

outline of the bright gibbous moon and about 3° E of it
 the star Regulus. Both were about 10° to 15° E of the
 meridian. Also seen were Castor and Pollux and Saturn,
 Sirius, Procyon.
 18X20SP: lunar craters through the clouds and area
 breaks in the clouds; Regulus, Procyon and GCM;
 Saturn, Castor and Pollux; Sirius.

7-2 Mar 28-29 03:15-03:45 UT Ft. La. 289702 (1/0; full; variable) nr. 289702
 NE: Full moon about 40° above E. horizon; Jupiter
 about 10° below the moon; Sirius, Procyon,
 Saturn; Castor and Pollux; Betelgeuse, Capella.
 18X20SP: area of M42; Belt stars of Orion;
 Sirius and area; Procyon and GCM;
 lunar craters seen through clouds
 Jupiter; Betelgeuse and area of Orion.

2-2 Mar 28-29 03:20-03:50 UT Ft. La. 289712-3 (1/0; full; nr. 289712)
 NE: bright moon about 30° above E. horizon; Jupiter
 Moon (which was on mer. 25° to 28° UT)
 seen about 30° above the E. horizon; Jupiter
 about 10° above the moon; Sirius, Procyon,
 Saturn, Castor and Pollux, Betelgeuse.
 18X20SP: lunar craters seen through the
 clouds; Jupiter, Sirius and area;
 Procyon and area; Saturn, Castor and
 Pollux, area of Betelgeuse.

2-M Mar 27-28 03:00-03:40 UT Ft. La. 289720 (1/0; full; variable) nr. 289720
 NE: gibbous moon in the E. below Jupiter and Sirius;
 features in the M.C., Sirius, Procyon, Saturn,
 Castor and Pollux, Belt stars of Orion, Betelgeuse,
 Capella; Regulus and some other stars of the

2005

constellation Leo,

18X50LSb: area of 3 Belt Stars of Orion, area of Sirius, area of Saturn and Castor and Pollux, area of Procyon and β CMi, M44, Jupiter, the bright gibbous moon through some clouds.

and 02:15-02:45 UT
M.-T. Mar 28-29 01:30-01:45 UT FL: 1a S8(T)5-6 (1/p; few clouds) ne; 18X50LSb

ne: On a night that was much clearer and less humid than many recent nights I observed the bright stars of Orion, of Canis Major, of Auriga and of the constellation Leo high in the E.; also Jupiter and Spica in the E. and Arcturus in the NE., Saturn and Castor and Pollux very high and W. of the zenith, Aldebaran and the Pleiades in the W.; also a meteor of about mag. 2 in the area of Hydra in the SSE; Corvus in SE.

18X50LSb: M44, area of M42 and other areas of Orion, M35, M36, M37, M38, NGC 2244 and the 'Christmas Tree' asterism of stars, M46, M47, M93, Jupiter with the 4 Galilean moons - 2 on each side of the planet; Saturn

T.-W. Mar. 29-30 02:05-03:05 UT FL: 1a S8(T)6 (1/p) ne; 18X50LSb

ne: bright stars of Orion, Auriga, Canis Major, of the constellation Leo high in the E., and of Corvus low in the ESE, Pleiades low in the W. above the roof across the street at the beginning of the session, Aldebaran, Procyon, Sirius, Castor and Pollux, Arcturus in the NE, Spica in the E.

18X50LSb: Pleiades, Hyades, Jupiter and the 4 Galilean moons with 2 on each side of the planet, M42 and other areas in Orion, M44, M35, M36, M37, M38, NGC 2244 and S Mons and

2005

the 'Christmas Tree' asterism, M46, M47, M93, areas in the constellation Leo; area of R Lep but without knowingly seeing the star itself, the area of R Leonis with a faint glimpse of the star itself.

W.-Th. Mar. 30-31 01:20-02:20 UT FL: 1a S8(?)T4-5 (1/p; some haze) ne; 18X5015b
ne: bright stars of Orion, Canis Major, Auriga, and of the constellation Leo high in the E, Aldebaran, Procyon, Saturn, Castor and Pollux, Arcturus in the NE, Jupiter in the E.

18X5015b: M42 and other areas of Orion, M41, M35, M36, M37, M38₂ (though M38 was fairly faint), NGC 2244 and S Mon and the 'Christmas Tree' asterism, M46, M47, M93, Hyades, Saturn, area of Castor and Pollux, Jupiter.

Th.-F. Mar. 31-Apr. 1 02:25-02:55 UT FL: 1a S8(?)T2 (1/p; very cloudy) ne; 18X5016
ne: Saturn, Castor and Pollux amid the clouds, Procyon, Sirius, Betelgeuse, Capella, Jupiter in the E. above Spica, Arcturus in the NE.

18X5015b: Betelgeuse and area including area of R Orionis, Procyon and area, Sirius and area, M44, Jupiter, Saturn and Castor and Pollux and area. The sky was very cloudy.

F.-S. Apr. 1-2 02:35-03:35 UT FL: 1a S8(?)T3-4 (1/p; very hazy; ^{some cloud}) ne; 18X5015b
ne: bright stars of Orion, some bright stars of Auriga, Sirius, Procyon, Saturn, Castor and Pollux, bright stars of the constellation Leo high in the E, Jupiter and Spica in the E., Arcturus in the NE.

488

the Christmas Tree asterism, M7, M7, M7, M7
area in the constellation Leo; area of Reg
box without knowing by seeing the star itself.
the area of Regius with a faint glimpse of
the star itself.

18x2015b: M32 and other stars of Orion, M7, M7, M7, M7
ne: bright stars of Orion, Cassiopeia, Auriga, and of
the constellation Leo high in the E. Altitude

proper, Saturn, Castor and Pollux, Procyon in
the NE, Jupiter in the E.
18x2015b: M32 and other stars of Orion, M7, M7, M7, M7
M37, M38 (though M38 was fairly faint)
M62 and 2 stars and the Christmas tree
asterism, M7, M7, M7, M7, Hyades, Saturn,
area of Castor and Pollux, Jupiter

18x2015a
18x2015b: M32 and other stars of Orion, M7, M7, M7, M7
ne: Saturn, Castor and Pollux and the stars
Procyon, Sirius, Betelgeuse, Capella, Jupiter
in the E. above Spica, Procyon in the
NE

18x2015b: Betelgeuse and area including area
of Orion, Procyon and area
Sirius and area, M7, Jupiter
Saturn and Castor and Pollux and
area. The sky was very cloudy.

18x2015b
18x2015b: M32 and other stars of Orion, M7, M7, M7, M7
ne: bright stars of Orion, some bright stars of Auriga, Sirius,
Procyon, Saturn, Castor and Pollux, bright stars of the
constellation Leo high in the E. Jupiter and Spica
in the E. Procyon in the NE.

2005

18X5015b: M42 and some other areas of Orion, M44,
(See diagram) some areas of the Constellation Leo,
Jupiter and at least two of the
Galilean moons.

S-S Apr. 2-3 03:00-03:40 UT FL: 1a S8(?)T6(1/p) ne; 18X5015b
ne: bright stars of Orion, and Canis Major and
Auriga and the constellation Leo near the
zenith, stars of Corvus in the SE, Procyon,
Saturn and Castor and Pollux, Jupiter
and Spica in the E. and Arcturus in the
NE.

18X5015b: M44, M42 and other areas of Orion,
M46 and M47, M93, some areas of the
constellation Leo, M35, M36 in Auriga
Jupiter and at least 2 of the Galilean
moons.

S-M. Apr. 3-4 02:50-03:20 UT FL: 1a S8(?)T6(1/p) ne; 18X5015b
ne: bright stars of Auriga, Orion, Canis Major,
Procyon, Saturn, Castor and Pollux, bright stars of
the constellation Leo high in E. and near the zenith,
and of Corvus in the SE. Jupiter in the E.
and Spica, and Arcturus in the NE.

18X5015b: M44, M42 and other areas of Orion,
M36 in Auriga, M46 and M47, M93,
NGC 2244 and S Mon and the "Christmas Tree"
asterism, Saturn and Castor and Pollux,
M41, Jupiter and 3 of the Galilean

M. Apr. 9
6:05-6:10 a.m. E.D.T.
10:05-10:10 UT FL: 1a S8(?)T6(1/p) ne; 18X5015b
ne: Cr. Moon 4 1/2 days from New Moon about 8°
below Mars in E, Summer Triangle of stars in

Sagittarius

Scorpius

Antares

Mars

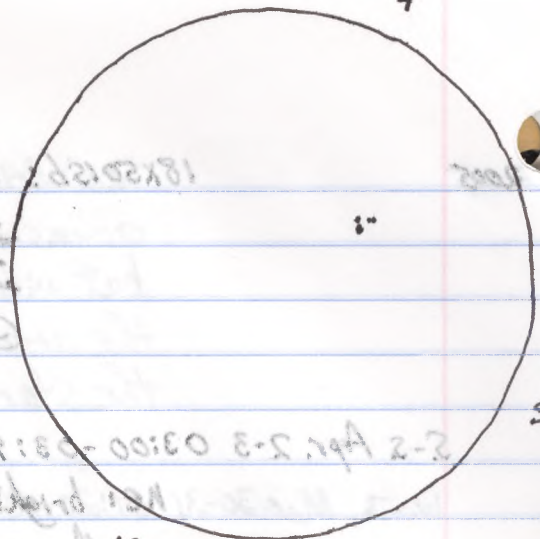


80°

30°

E SE SSE

2006 Apr. 4, 10:05 UT View to E and SE



SE

19
45
RSN14

Apr. 9
16:55-17:10 UT

4

[Faint, mostly illegible handwritten notes and bleed-through from the reverse side of the page.]

the NE, ~~Sag~~ Scorpius and Sagittarius in the SSE and SE.
(See diagram.)

18X5015b: areas of Lyra and Cygnus, Crescent Moon
and Mars in the E.

M.-T. Apr. 4-5 02:50-03:50 FL:la 58(?)T6(1/p) ne; 18X5015b

ne: bright stars of Auriga, Orion, Canis Major, and the
constellation Leo high in the E, and Corvus in the S.E.;
also Procyon, Saturn and Castor and Pollux,
Aldebaran, Jupiter and Spica in the E, Arcturus
in the NE.

18X5015b: Hyades, or most of them, partly among
the trees (or tree) near the house across the
street, area of M42 and other areas of Orion;
area of R Lep, but not sure of seeing the
star itself, M46 and M47, M93, M35, M36,
M37, M38, NGC 2244 and the "Christmas Tree"
asterism, Saturn and Castor and Pollux,
Jupiter and two of the Galilean moons; M41

F.-S. Apr. 8-9 05:08-05:18 UT nd 57T9.5! ne; 18X5015b

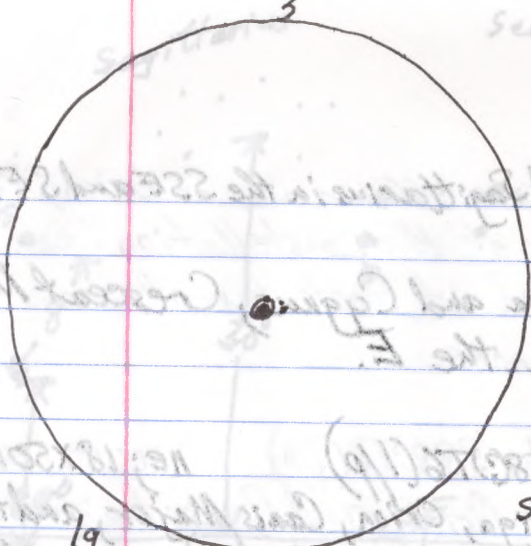
ne: After attending the Kingston Centre Meeting at
which National President Peter Jedicke spoke
about Astronomy in Hawaii, I observed
stars of the spring sky under superb
transparency.

18X5015b: Saturn, Jupiter, ϵ Lyrae and areas of
Lyra, Alcor and Mizar near the zenith,
Kemble 2 in Draco, area of M81 and M82.

Sa. Apr. 9 16:55-17:10 UT t
Sun 19 45 RSN 14.

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

scorpius



19
35
RSUB3

April 10
16:20-16:25 UT

SC

18X2012p: ...
(see diagram)
and M2 in the E.

M.T. Apr 10-20:00-20:20
re: bright stars of ...

April
16:55-17:10 UT

Aldebaran, Jupiter and Spica in the E. ...
in the NE.

18X2012p: ...
the trees ...
street, ...
area of R ...
star itself. ...
M3, M8, ...
Jupiter and ...

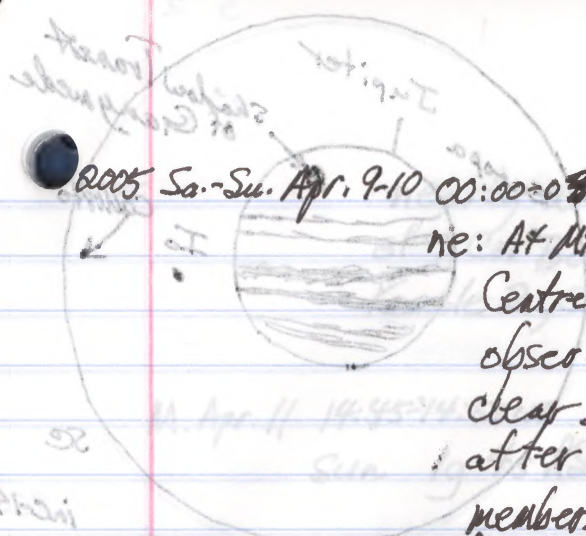
F.2 Apr 8-9 02:08-07:18 UT ...

re: ...
which ...
about ...
stars of the ...

18X2012p: ...
Jupiter, ...
M3, M8, ...

C-8, 85, 88, 90, 92
T.O.F.

2. Apr. 16:22-17:10 UT
Sun 19 42 RSUB 14



2005 Sa.-Su. Apr. 9-10 00:00-03:00 UT near Perth Mike Wirth's place, SRT9 ne; 18x50 ISB; Mike's 18" scope; Mike's 30" scope

ne: At Mike Wirth's place, several members of the Ottawa Centre and several members of the Kingston Centre observed the stars of spring under spectacularly clear skies - during the advancing twilight and after the end of twilight. Kingston Centre members were Ken Kingston, Steve Manders, David Anansi, a member who is a retired secondary teacher from the Separate school board, and I. Jupiter near opposition and Saturn in Capricorn were the planets that were visible 18x50 ISB: M36, M37, M38, Kemble 2, M44(?), Jupiter, Saturn

Mike's 18" Starmaster scope: I observed M55 and M56 and the nearby NGC galaxy.

Mike's 30" Starmaster scope: I observed M51 which was large and ~~observed~~ very sharp and distinct - probably among the best of the observations I had made of this object. I also observed M3 which was spectacularly rich in bright stars.

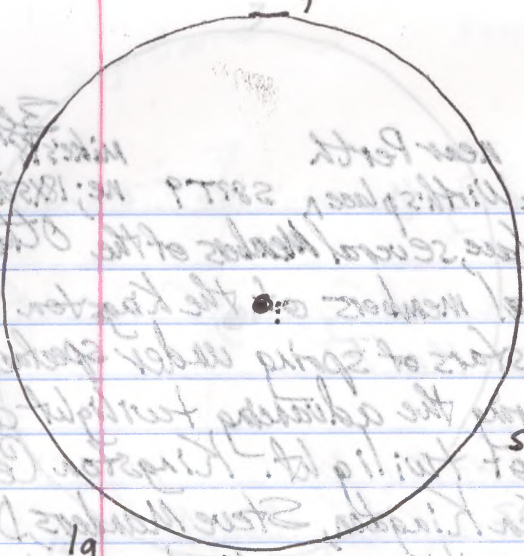
Su. Apr. 10 16:20-16:25 UT t C-8, 32
Sun 193s RSN 13 T.O.F.

S.-M. Apr. 10-11 02:00-03:15 UT y SRT9.5! ne; 18x50 ISB

ne: Under skies with very good seeing and superb transparency I observed the stars of spring and Jupiter and Saturn. M44 was easily visible naked-eye and also two of the stars near it were seen naked-eye.

18x50 ISB: M35, M36, M37, M38, M44, M67, M65 and M66 in the constellation Leo; R Leonis and

4



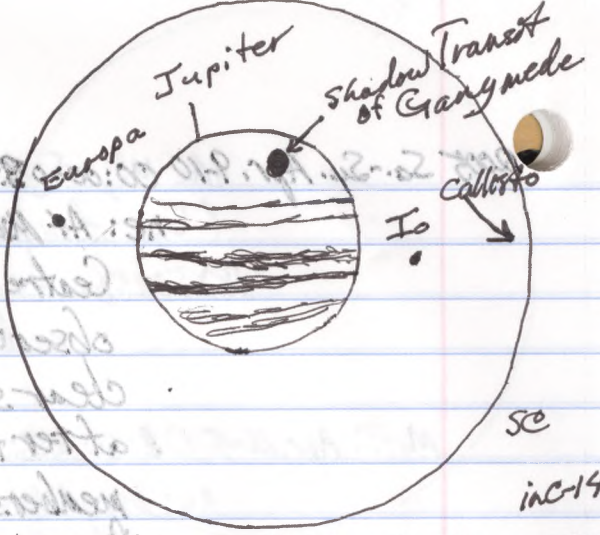
SC

19
45

RSN14

Apr. 11

14:45 - 14:50 UT

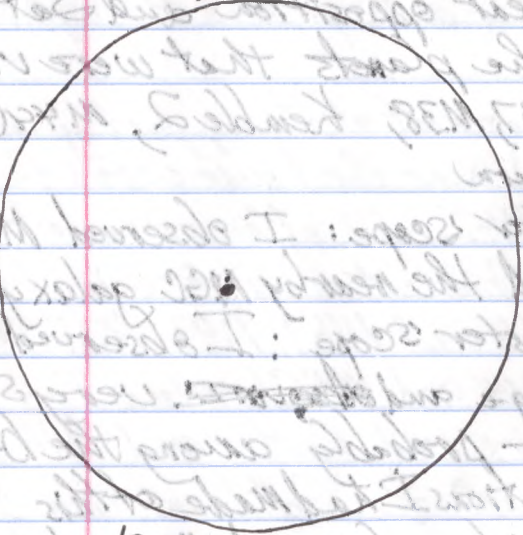


SC

inc-14

2005, April 12, 03:35 UT View of Jupiter and the Galilean moons with a shadow transit

2



SC

19
25

RSN12

Apr. 12

17:35 - 17:40 UT

RSN13
T.O.F.

Apr. 10 16:30 - 16:35 UT
Sun 193 RSN13

Apr 10 05:00 - 05:15 UT

Apr 10 05:00 - 05:15 UT
RSN13
T.O.F.
near it was seen naked eye.
visible naked-eye and also two of the stars
and Jupiter and Saturn. What was seen
transparently I observed the stars of spring
with very good seeing and support
RSN13

Apr 10 16:30 - 16:35 UT
Sun 193 RSN13
RSN12
T.O.F.

2005

nearby area, M13 and M92 in Hercules, area of T Cor Bor, R Cor Bor, Kemble's Cascade, Kemble 2, Saturn, Jupiter.

M. Apr. 11 14:45-14:50 UT t
Sun 1g 4s RSN14

C-8, 32
T.O.F.

M.-T. Apr. 11-12 01:45-03:45 UT 00 SGT 9-9.5! ne; 18X50156; C-14, 19

Aurora!

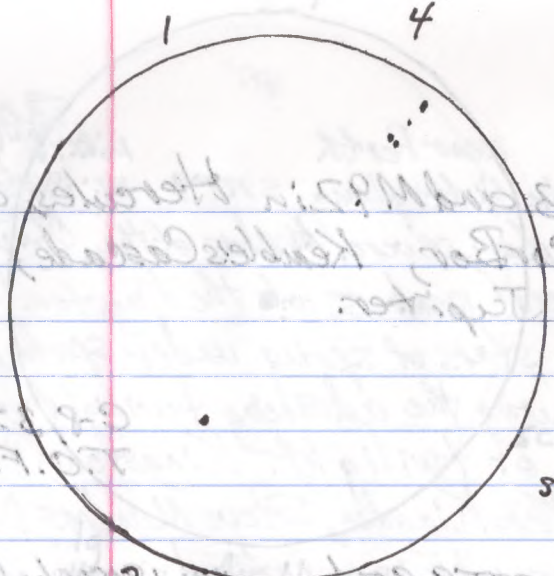
ne: stars of Spring; Jupiter and Saturn; Auroral glow which persisted for whole session in the N. part of the sky, generally from the horizon up about 25° to 30° and extending about 25° or more on either side of the N. point of the horizon. At about 02:51 UT it became quite bright low in the N. and the brightness spread toward the E and some spikes developed. This activity lasted only for a short while. The colours were generally whitish or yellowish.

18X50156: M35, M36, M37, M38, NGC 2244 and S Mon and the Christmas Tree asterism, T Cor Bor and area and R Cor Bor and area, M44 and area and M67, M65 and M66 and area, Kemble 2 in Draco, Saturn and area, Jupiter. M13

C-14, 19: Jupiter with the shadow transit of Ganymede seen at about 3:14 UT and later at about 03:32 to about 03:35 UT; Saturn and several of its moons; M65 and M66.

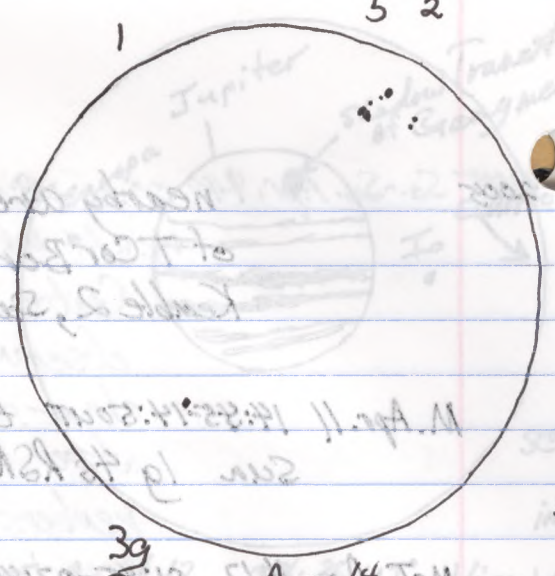
Tu. Apr. 12 17:35-17:40 UT t
Sun 1g 2s RSN12

C-8, 32
T.O.F.



SC

29
53
Apr. 13
RSN 25 20:20-20:25 UT



SC

39
85
Apr. 14 T.M
RSN 38 17:30-17:35 UT

which persisted for whole session in the N. part
of the sky, generally from the horizon up about
25 to 30°, and extending about 25° across on
other side of the N. part of the horizon. At about
02:21 UT it became quite bright low in the N
and the brightness spread toward the E and
some spikes developed. This activity lasted
only for a short while. The colors were
generally whitish or yellowish.
M13 and M2 in Hercules area, RC Car and
Kumbles 2, Saturn and Jupiter.

which persisted for whole session in the N. part
of the sky, generally from the horizon up about
25 to 30°, and extending about 25° across on
other side of the N. part of the horizon. At about
02:21 UT it became quite bright low in the N
and the brightness spread toward the E and
some spikes developed. This activity lasted
only for a short while. The colors were
generally whitish or yellowish.
M13 and M2 in Hercules area, RC Car and
Kumbles 2, Saturn and Jupiter.

G.M.R.: Jupiter with the starry transit of
Gamma₂ seen at about 3:14 UT and later
at about 03:32 to about 03:35 UT. Saturn
and several of its moons; M2 and M13.
T.O.F.
17:32-17:40 UT

G.M.R.: Jupiter with the starry transit of
Gamma₂ seen at about 3:14 UT and later
at about 03:32 to about 03:35 UT. Saturn
and several of its moons; M2 and M13.
T.O.F.
17:32-17:40 UT

2005 T.-W. Apr. 12-13 01:05-02:40 UT 00 SR(?)T9 (cloudy at end of session) ne; ^{20x/006} ~~18x5015b~~

ne: stars of spring, Jupiter, Saturn, crescent moon.

Clouds moved in between 02:30 and 02:40 UT

~~18x5015b~~ 20x/006: T Cor Bor and area, Saturn, Jupiter and 3 of the Galilean moons, NGC 2244 and S Mon and the 'Christmas Tree' asterism; lunar craters on the crescent moon through the clouds near the end of the session.

W. Apr. 13 20:20-20:25 UT t

Sun 2g 5s RSN 25

C-8, 32

T.O.F.

W.-Th. Apr. 13-14 02:05-03:05 UT y SR(?)T7 (cm!) ne; 18x5015b

ne: 5^{1/2} day-old crescent moon quite bright in the NW sky, Jupiter, Saturn, stars of spring

18x5015b: M44, M67, M35, Saturn, area of Castor and Pollux, area of M65 and M66, M13, M92, Jupiter and three of the Galilean moons, Alcor and Mizar, R Leonis and area.

Th. Apr. 14 17:30-17:35 UT t

Sun 3g 8s RSN 38

C-8, 32, 28, 20, 15

T.O.F.

Th.-F. Apr. 14-15 05:50-05:52 UT nd SR(?)T9! ne

- Under crystal clear skies with excellent transparency in spite of a crescent moon about 5° above the NW horizon, I observed two planets and the stars of late spring and early summer. Saturn was about 10° above the NW horizon and Jupiter was in the SSW sky in the constellation Virgo.

1 5 2

The current view of the clouds
 The asteroid was visible on
 Jupiter and 3 of the Galilean moons
 were visible. The asteroid was
 visible in between 02:30 and 03:00 UT
 No: Start of Spring Jupiter, Saturn, Crescent Moon.
 16:50-18:55 UT
 Apr. 15
 39
 85
 KSN38

The current view of the clouds
 The asteroid was visible on
 Jupiter and 3 of the Galilean moons
 were visible. The asteroid was
 visible in between 02:30 and 03:00 UT
 No: Start of Spring Jupiter, Saturn, Crescent Moon.
 16:50-18:55 UT
 Apr. 15
 39
 85
 KSN38

W. Apr. 13 20:50-21:55 UT
 Sun 20:50-21:55 UT
 W. Tr. Apr. 13-14 02:00-03:00 UT (M3)
 No: Start of Crescent moon quite bright in the NW sky.
 Jupiter, Saturn, stars of spring
 18:20:10: M11, M17, M36, Saturn, one of Castor and
 Pollux, one of M2 and M6, M13, M15, Jupiter
 and three of the Galilean moons, Alcor and Mizar
 visible and over.

W. Apr. 13 20:50-21:55 UT
 Sun 20:50-21:55 UT
 W. Tr. Apr. 13-14 02:00-03:00 UT (M3)
 No: Start of Crescent moon quite bright in the NW sky.
 Jupiter, Saturn, stars of spring
 18:20:10: M11, M17, M36, Saturn, one of Castor and
 Pollux, one of M2 and M6, M13, M15, Jupiter
 and three of the Galilean moons, Alcor and Mizar
 visible and over.

Tr. Apr. 11 17:30-18:30 UT
 Sun 8:20-9:30 UT
 Tr. F. Apr. 11-12 02:30-03:30 UT (M3)
 No: Water crystal clear skies with excellent transparency
 in spite of a crescent moon about 2° above the
 NW horizon. I observed two planets and the
 stars of late spring and early summer. Saturn
 was about 10° above the NW horizon and
 Jupiter was in the 22° sky in the constellation
 Virgo.

Tr. Apr. 11 17:30-18:30 UT
 Sun 8:20-9:30 UT
 Tr. F. Apr. 11-12 02:30-03:30 UT (M3)
 No: Water crystal clear skies with excellent transparency
 in spite of a crescent moon about 2° above the
 NW horizon. I observed two planets and the
 stars of late spring and early summer. Saturn
 was about 10° above the NW horizon and
 Jupiter was in the 22° sky in the constellation
 Virgo.

2005 Apr. 15 16:50-16:55 UT ϵ
Sun 3g 8s RSN38

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

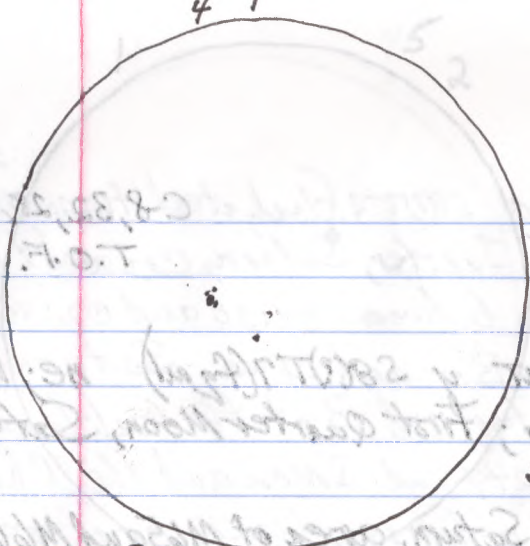
F.-S. Apr. 15-16 02:05-03:00 UT γ S8(?)T7 (fg ml) ne; 18X50ISb
ne: stars of spring; First Quarter Moon, Saturn
and Jupiter.

18X50ISb: Jupiter, Saturn, area of M65 and M66,
R Leonis, R Cor Bor, lunar craters, Kemble 2
in Draco, M44.

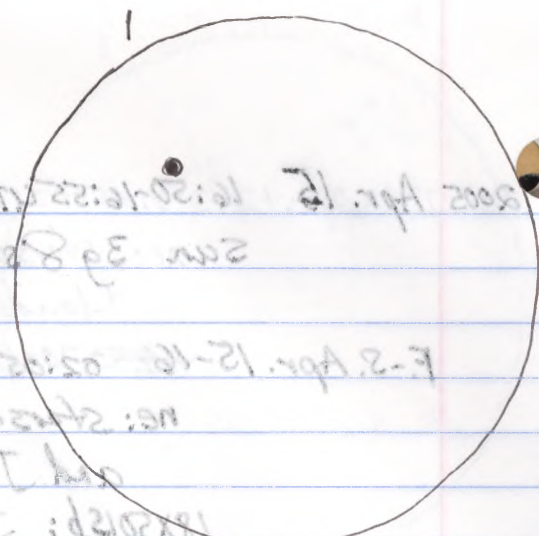
Sa.-Su. Apr. 16-17 00:30-02:00 UT ^{at Queen's University} roof of Ellis Hall, ^{19, 8.} ne; Ast, 28,
ne: After our Astronomy Day activities at Isobel

Turner Library near the Catarague Town Centre,
we ate as a group of 8 at Boston Pizza and
then went to the roof of Ellis Hall for the public
observing session. Our activities during the day
included solar observing near the library and 5
short talks in a room at the library: (1) Solar
Observing by Kim Hays, (2) Lunar Observing by
Ken Kingdon, (3) Charts by Susan Gagnon, (4) What's
In The Sky Tonight by Hank Bartlett, and
(5) Binocular Observing by me. The group at Boston
Pizza was Hank Bartlett, Kim Hays, Kevin Kelly,
Mark Kaye, Susan Gagnon, Laura Gagné and her
daughter, and me. At Ellis Hall we observed the
brighter of the spring stars, the First Quarter
Moon, Jupiter and Saturn.

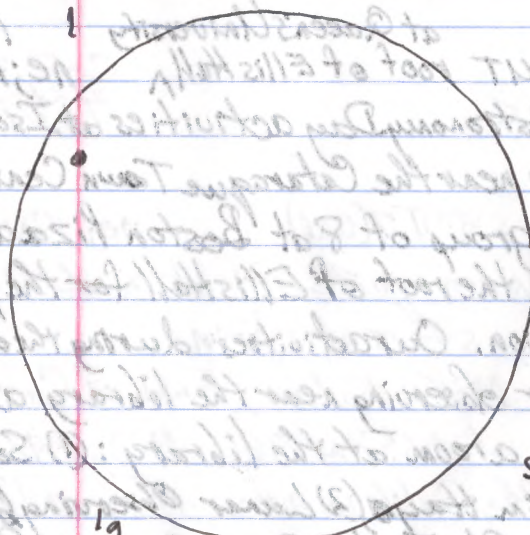
Ast, 28, 19, 8: Lunar Craters, Jupiter and the 4
Galilean moons, Saturn and Titan.
There was a good number of people at the
Public Observing Session. After the session,
there was a report that 105 had attended.



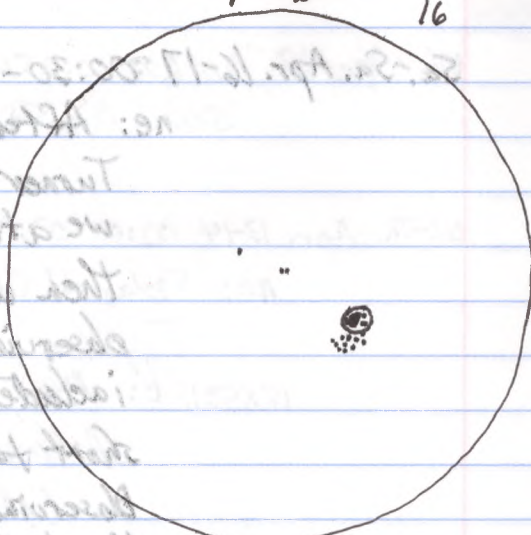
29
55
RSN45 15:30-15:35 UT
Apr. 18



19
15
RSN11 13:25-13:30 UT
Apr. 21



19
15
RSN11
14:00-14:02 UT
Apr. 22



39
195
RSN49
14:05-14:10 UT
Apr. 29

2005^{M.T.} Apr. 18 15:30-15:35 UT t
Sun 2g 5s RSN 25

C-8, 32
T.O.F.

T.-W. Apr. 19-20 03:40-03:45 nd S(?) T 1 (dense clouds, gw) ne
- Amid the dense clouds I saw the bright gibbous Moon^{high} in the SW and Jupiter in the SSW about 32° from the Moon.

Th. Apr. 21 13:25-13:30 UT t
Sun 1g 1s RSN 11

C-8, 32
T.O.F.

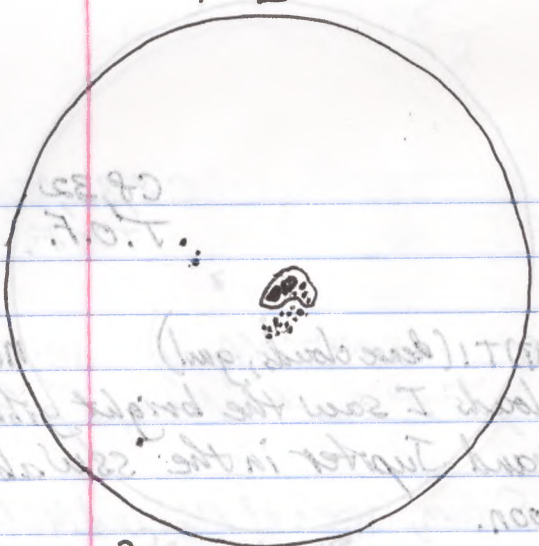
F. Apr. 22 14:00-14:02 UT t
Sun 1g 1s RSN 45

C-8, 32
T.O.F.

W.-Th. Apr. 27-28 02:30-04:00 UT y S T T 9 (some water vapour) ne; 20x100b
ne: Saturn in Gemini, Jupiter in Virgo and bright enough that shadows could be seen against the wall of the observatory, stars of spring.
20x100b: I was very happy that the 20x100 binoculars had been collimated properly and gave much better views after having been repaired by Doug Banks of Amherstview. I saw M65 and M66 and nearby NGC 3628, M92 and M13 in Hercules, M57 and Elyrae, Kemble 2 in Draco, Jupiter and the 4 Galilean moons, Saturn, δ Cephei which was very clearly split, μ Cep - the Garnet Star, R Cor Bor, T Cor Bor, R Leonis which was probably a magnitude or more brighter than the last time I had seen it.

F. Apr. 29 14:05-14:10 UT t
Sun 3g 19s RSN 49

C-8, 32
T.O.F.



29
255
RSN 45 May 1 14:20-14:25 UT

T.O.F.
C.R. 32
T.O.F.

Apr 18 12:30-12:35 UT
Sun 22 RSN 22

Apr 19 03:40-03:45 UT
- And the Moon I saw the bright
Moon in the SW and Jupiter in the SE about
30° from the Moon.

SC

Apr 21 13:00-13:30 UT
Sun 12 RSN 11

Apr 22 14:00-14:05 UT
Sun 12 RSN

Apr 27 03:30-04:00 UT
SC: Saturn in Gemini, Jupiter in Virgo and bright
Mercury that should be seen against the
wall of the observatory, stars of spring.
Note: I was very happy that the observation
had been called properly and I was
in a better view after having been reported
by the books of Anderson I saw

and M2 in Hercules, M27 and Epsilon
Kappa 2 in Draco, Jupiter and the 4
Galilean moons, Saturn, 8 Opus which
was very clearly split in Cap - the Great
Star R Corcor, T Corcor, R Lewis
which was probably a magnitude or more
brighter than the last time I had seen it.

Apr 29 14:02-14:05 UT
Sun 3d 12 RSN 11

C.R. 32
T.O.F.

2005 F.-S. Apr. 29-30 03:20-04:20 UT y 57T9 (some water vapour) ne; 18X501sb

Aurora

ne: stars of spring; Jupiter, Saturn; some auroral glow in the N, up about 15° to 20° , but not very active.

18X501sb: M5, M92, M13, Jupiter and 2 of its Galilean moons, Saturn, ϵ Lyrae, area of M57 in Lyra, M81 and M82, M65 and M66, R Leonis, R Cor Bor, IC4665, M10 and M12 in Ophiuchus, Kemble 2 in Draco, μ Cep and areas in Cepheus.

Su. May 1 14:20-14:25 UT t

c-8, 32

sun 29 255 RSN45

S.-M. May 1-2 02:35-03:35 y and nd 57T9

ne; 18X501sb

ne: stars of spring; Jupiter, Saturn, possibly a slight glow in the N to NNW that might have been auroral

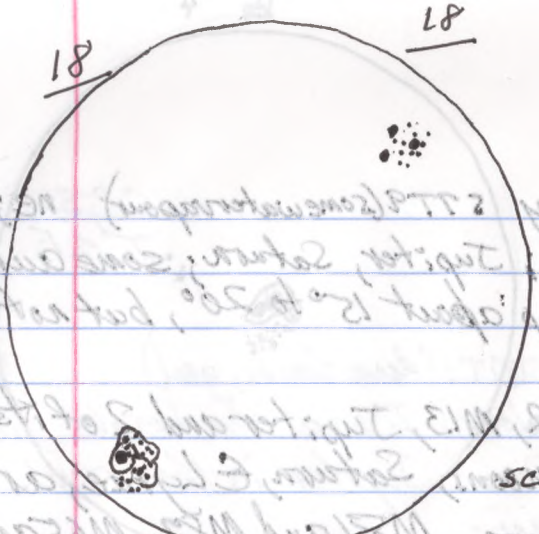
18X501sb: Jupiter and two of the Galilean moons, Saturn, M5, M10, M12, T Cor Bor and R Cor Bor, δ Virginis and area, the area of 3C273 in Virgo, Kemble 2 in Draco, M92 and M13 in Hercules, M65 and M66, area of M104

M.-T. May 2-3 07:20-07:45 UT y 57T8.5

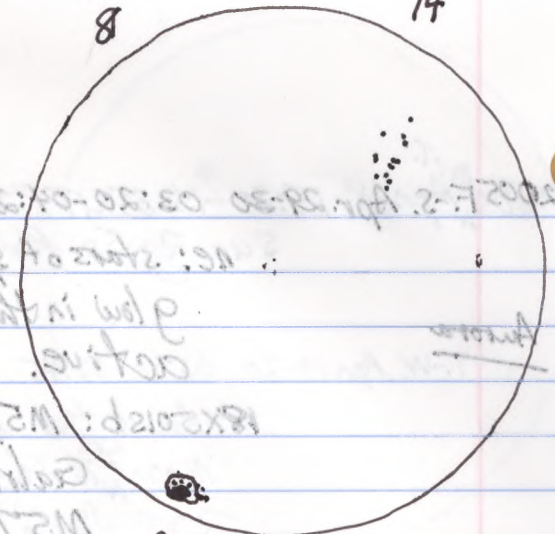
ne; with David Levy

- stars of spring and early summer including The Summer Triangle high in the E.; looked for η Aquarid Meteors, whose shower was scheduled to peak about 24 hours hence; David saw 2 members of the shower; one 2nd magnitude and one 3rd magnitude. It appeared to be a weak shower. Thanked

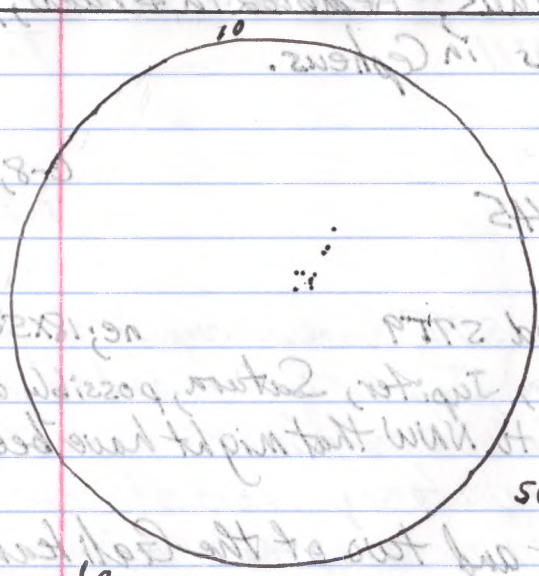
for giving me a memory and a privileged night of observing.



29
363
RSN 56
May 5
18:00-18:05 UT



29
225
RSN 42
May 6
18:55-19:00 UT



19
105
RSN 20
May 7
18:25-18:30 UT

2005 W-Th. May 4-5 05:15-05:25 UT nd S7T8.5 ne

- stars of late spring and early summer; Jupiter in the SW in Virgo.

Th. May 5 18:00-18:05 UT t
sun 29 36S RSN 56

C-8, 32
T.O.F.

Th-F. May 5-6 03:10-03:15 nd S7T5 (clouds, esp. in N) ne

- some of the bright stars of spring, but there were clouds in the N.; Saturn in Gemini and Jupiter in Virgo.

F. May 6 18:55-19:00 UT t
sun 29 22S RSN 42

C-8, 32
T.O.F.

F-S. May 6-7 02:55-03:55 UT y S7-8T8.5 (some water vapour) ne; 18x50isb

ne: stars of spring, Saturn, Jupiter

18x50isb: M10, M12, M5, R Cor Bor, T Cor Bor, Jupiter,

Saturn, M81, M82, M92, M13, area of M57, IC4665 in Ophiuchus, Kemble 2 in Draco.

Sa. May 7 18:25-18:30 UT t
sun 19 10S RSN 20

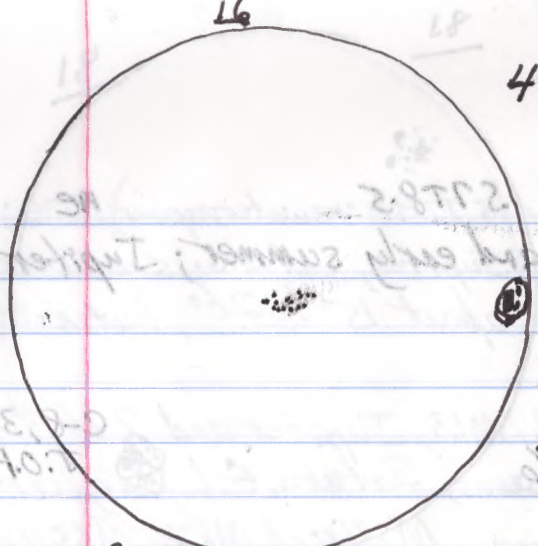
C-8, 32
T.O.F.

Sa-Su. May 7-8 02:15-04:15 UT S8(?)T9 (except Aurora in N) ne; 20x100b; C-14, 19

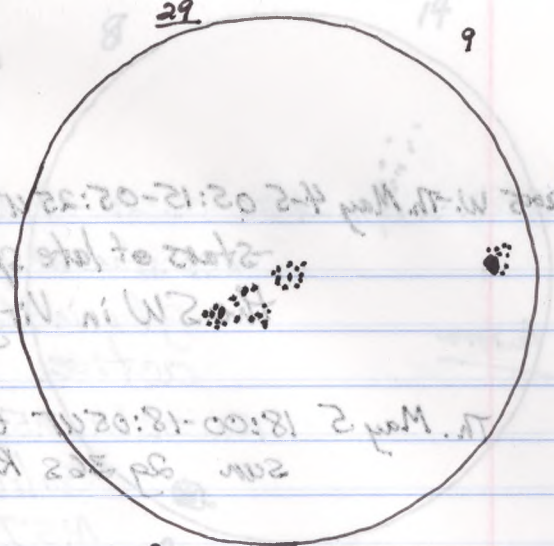
ne: stars of spring; Jupiter and Saturn; throughout the entire session, a very good display of the Aurora in the N. from NW to NNE and up to about 60° to 80° at times, at times quite active with some flaring and some vertical bands and spikes, but only slightly yellowish and not very colourful.

20x100b: Jupiter and the 4 Galilean moons, M10, M12, M57 and area, M13, M92, ϵ Lyrae.

Aurora!

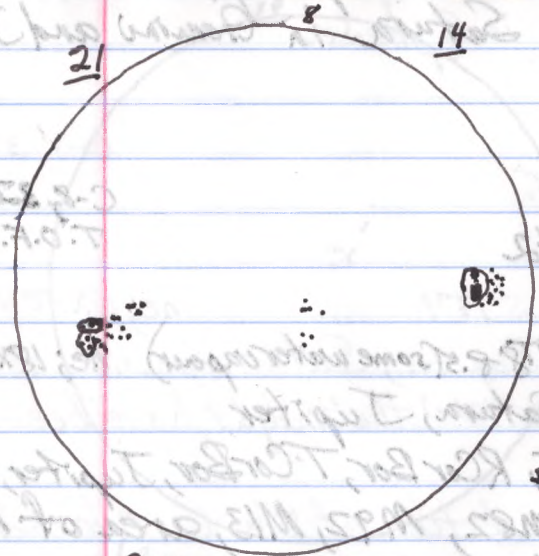


29
205
RSN40 May 8
14:25-14:40



29
388
RSN58 May 9
15:20-15:25 UT

sc



39
435
RSN73 May 10
15:30-15:35 UT

Answer!

2005

C-14, 19: Jupiter and its 4 Galilean moons with the bands quite clear and distinct; γ Leonis with the two components very well split.
ph: photographed the Aurora.

Su. May 8 14:25-14:30 UT t C-8, 32
Sun 2g 20s RSN 40 T.O.F.

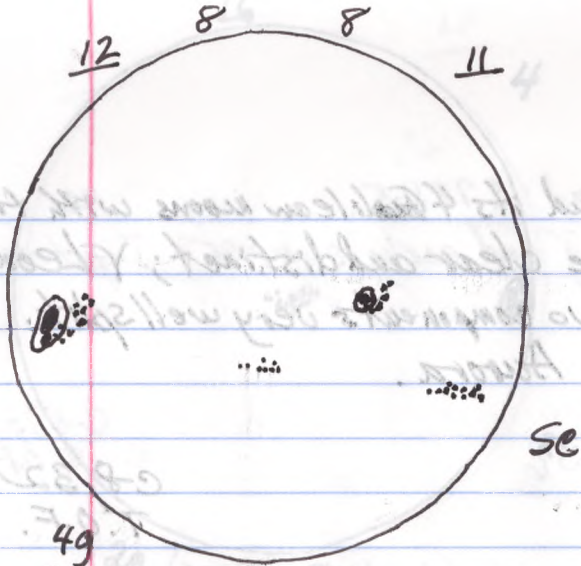
S.-M. May 8-9 02:00-03:40 UT y 58? M9 ne; Ast, 15, 8
ne: stars of spring; Jupiter, Saturn, *
Ast: Jupiter, Saturn, M13, ϵ Lyrae, M57, γ Leonis
some Aurora.
* During the session an Auroral glow was seen in the NNW and N.
It was not as extensive or intense or active as on the previous night.

M. May 9 15:20-15:25 UT t C-8, 32
Sun 2g 38s RSN 58 T.O.F.

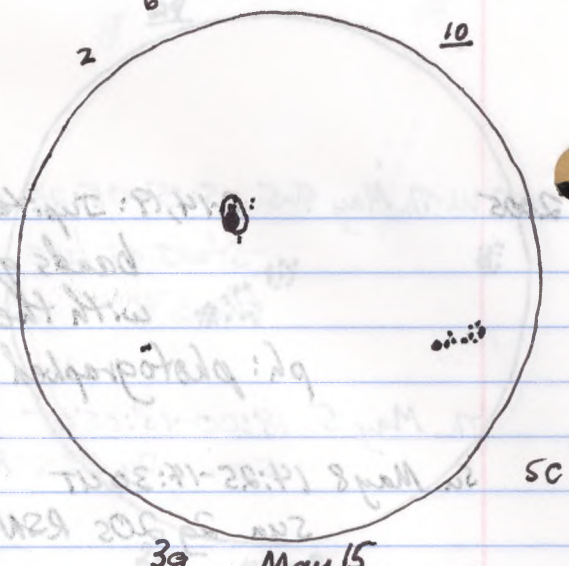
M.-T. May 9-10 03:35-03:50 UT rd STT 6-7 (hazy; some cloud) ne
-stars of spring, Jupiter, Saturn, one meteor of about mag. 3 in Libra.

Tu. May 10 15:30-15:35 UT t C-8, 32
Sun 3g 43s RSN 73 T.O.F.

W.-Th. May 11-12 02:00-02:40 UT Kin Park, ^{Portland, ON} ϵ 8: T8 (Cmb.) ne
After giving a slide show to a group of about 4 people at Kin Park in Portland, I led an observing session by pointing out the planets Jupiter and Saturn and many of the spring constellations. The slide show and observing session were well received and I was invited back the next night for another session.



49
395
RSN79
May 12
16:05-16:10 UT



39
185
RSN48
May 15
15:25-15:30 UT

It was not as extensive or intense as other observations.
 * During the session an Auroral glow was seen in the NW corner.
 Asc: Jupiter, Saturn, Mars, Venus, Mercury
 Alt: stars of spring; Jupiter, Saturn, Mars, Venus, Mercury

previous right.
 M. May 10 12:30-12:35 UT
 Sun 3d 382 RSN 28

After giving a slide show to a group of about 4 people at the park in Portland, I began observing Jupiter and Saturn and many of the spring constellations. The slide show and observing session were well received and I was invited back the next night for another session.

W-T. May 11-12 08:00-08:05 UT (RSN 18)
 After giving a slide show to a group of about 4 people at the park in Portland, I began observing Jupiter and Saturn and many of the spring constellations. The slide show and observing session were well received and I was invited back the next night for another session.

Cloudy weather had prevented my doing an observing session beginning at 00:30 UT (8:00 p.m. E.D.T.).

Th. May 12 16:05-16:10 UT t C-8, 32
Sun 4g 39s RSN 79 T.O.F.

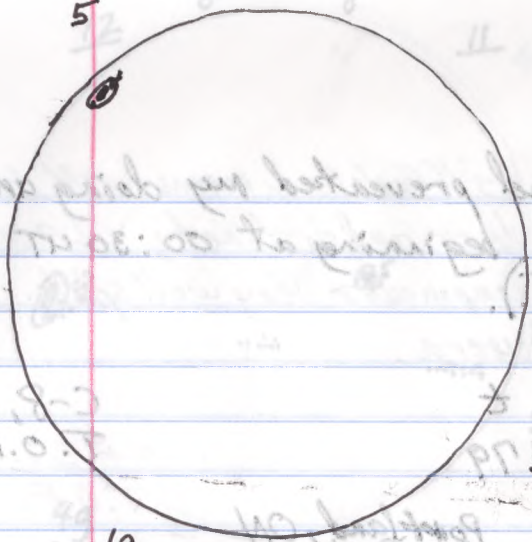
Portland, ON
Th-F. May 12-13 01:00-02:45 UT Kin Park, 58(UT 8(m)) ne; C-8, 19.
ne: I returned to Kin Park in Portland and had a brief introduction indoors and then went out to the area behind the "clubhouse" where a picnic table was moved to a place where I could put the C-8 telescope. After spending about an hour observing with the telescope as twilight darkened, I then pointed out the spring constellations. There was a beautiful 4-minute passage of the International Space Station which the group enjoyed seeing. The group consisted of about 8 people.

C-8, 32, 20, 19: We observed Jupiter and the 4 Galilean moons first. Most, or all, of the observers saw two of the bands of Jupiter. Then we observed Saturn and the moon Titan. After that we observed M13, the Globular Cluster in Hercules. The views were very good at 105.3X

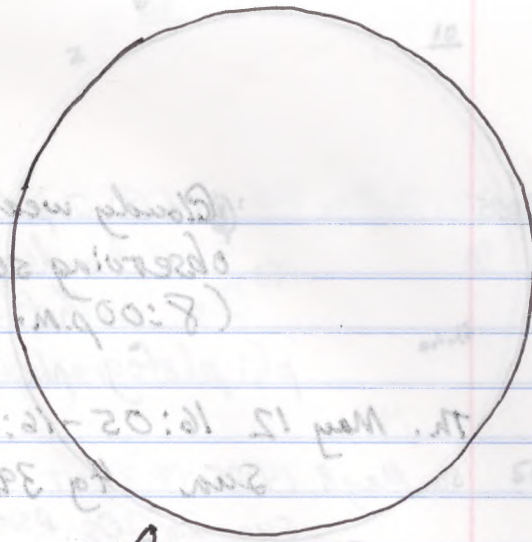
As had been the case the previous night, while I was driving home from Portland, I enjoyed the views of the crescent moon setting in the NW.

Su. May 15 15:25-15:30 UT t C-8, 32
Sun 3g 18s RSN 48 T.O.F.

5



19
55
RSN15 May 19
14:35-14:40 UT



09
05
RSN0 May 20
15:00-15:05 UT

sc

had a brief introduction for indoors and then
went out to the area behind the "classroom"
where a picnic table was moved to a place
where I could put the C8 telescope. After
spending about an hour observing with
the telescope at twilight darkened, I
then pointed out the spring constellation
There was a beautiful 4 minute passage
of the International Space Station which
the group enjoyed seeing. The group consisted
of about 8 people.
C-8, 32, 20, 19: We observed Jupiter and the 4
Galilean moons first, that is, all of
the observers saw two of the bands of
Jupiter. Then we observed Saturn and
the near Titan. After that we observed
M13, the Globular Cluster in Hercules. The
views were very good at 102.3X
As has been the case the previous night, which
was driving home from football, I enjoyed the
views of the present near setting in the NW

C-8, 32
T.O.F.

20 May 12 15:02-15:05 UT
20 May 12 15:02-15:05 UT

2005 Su.-M. May 15-16 04:27-04:34 UT nd 58°JT8 (cmd.) ne

Aurora:

- Jupiter very bright in the SW; stars of spring; bright crescent moon in the NW; fairly bright Aurora in the N and NW with glow up about 20° to 25° and with a possible arc in the N. Though fairly bright, it was not very active. The Summer Triangle was well up in the E.

W.-Th. May 18-19 04:00-04:05 UT nd 58°JT5 (gml) ne

- stars of spring, Castor and Pollux and Saturn low in the NW; Vega and Deneb in the E. sky, bright gibbous moon in Virgo and about 9° from the star Spica.

Th. May 19 14:35-14:40 UT t
Sun 1g 5s RSN15 C-8, 32
T.O.F.

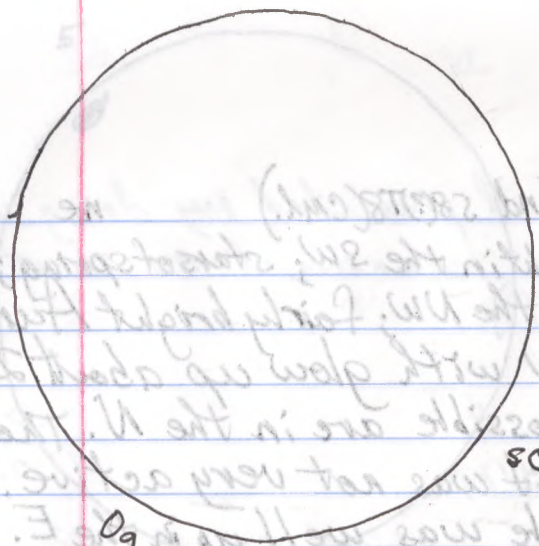
Th.-F. May 19-20 03:00-03:05 UT nd 58°JT5 (gml) ne

- stars of spring; Castor and Pollux and Saturn in the NW; bright gibbous moon about 2° S. of Spica in the constellation Virgo in the SW; Vega and Deneb in the E.

Aurora:

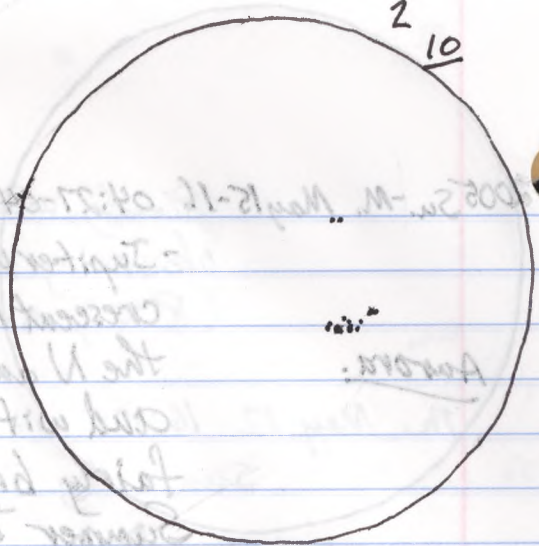
06:54-07:00 UT in ne
- Looking out the bathroom window, I noticed a very bright Aurora in the N, from at least NW to NNE and extending up from 30° to 40° in an arc and perhaps at times a double arc. There did not seem to be much colour, but there were occasional vertical spikes and some pulsations. It was only a short while - perhaps still 20 minutes until the beginning of astronomical twilight.

F. May 20 15:00-15:05 UT t
Sun 0g 0s RSN0 C-8, 32
T.O.F.



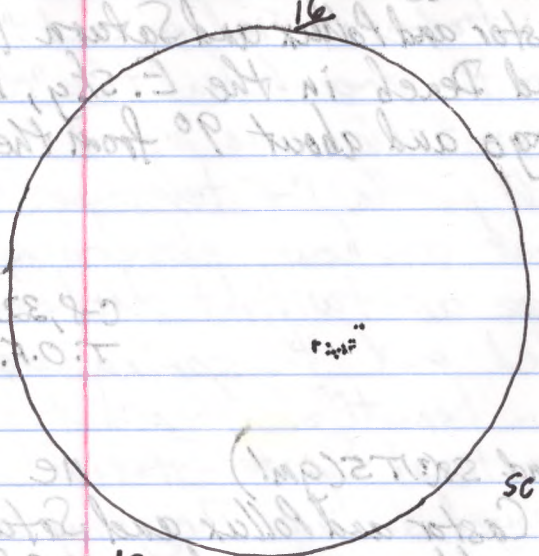
09
05
RSN0 May 21
15:10-15:15 UT

SC



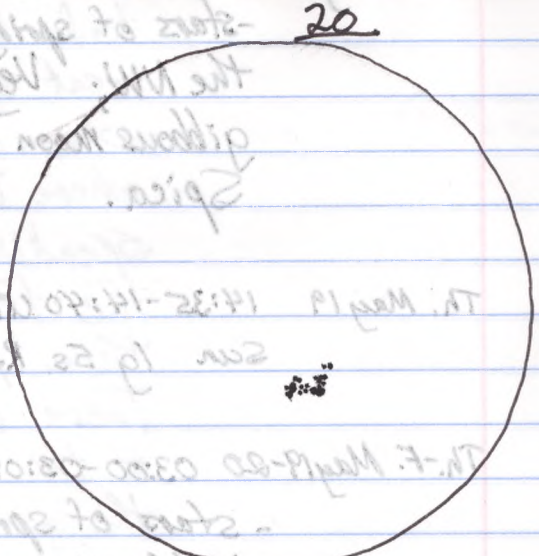
2
10
29
125
RSN 32 May 25
16:15-16:20 UT

SC



16
19
165
RSN26 May 26
15:40-15:45 UT

SC



20
19
205
RSN30 May 27
17:11-17:16 UT

SC

08:32
T.O.F.

F. May 30 12:00-12:05 UT
RSN 02

2005 F-S. May 20-21 04:22-04:27 UT nd 58(?) T4-5 (gml) ne

- bright gibbous moon in Virgo about 120° ESE of the star Spica, Big Dipper high in the NNW, the Summer Triangle of stars in the E.

Sa. May 21 15:10-15:15 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

T-W. May 24-25 03:18-03:23 UT nd+y 58(?) T5 (fml) ne

* Full Moon in the SE, Jupiter very bright in the SW; Saturn and Castor and Pollux in the NW; Vega and Deneb in the E; other stars of spring.

W. May 25 16:15-16:20 UT t
Sun 2g 12s RSN 32

C-8, 32
T.O.F.

W-Th. May 25-26 03:05-03:45 UT nd+y 58(?) T8-9 ne; 18x50 ISb

ne: stars of spring; Jupiter in SW; Saturn in NW near Castor and Pollux.

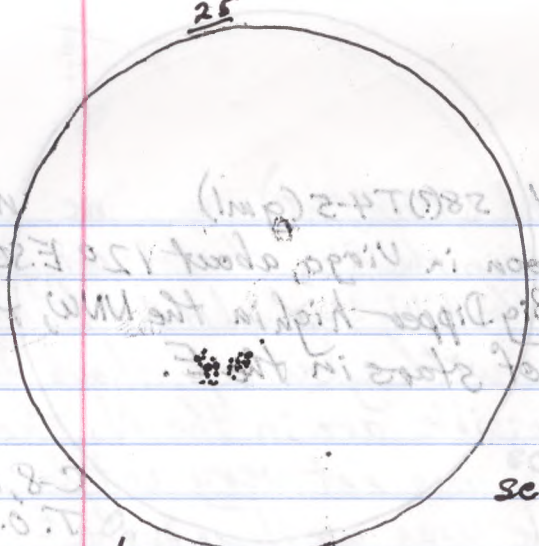
18x50 ISb: Jupiter and 3 Galilean moons; looked in the area of δ Virginis hoping possibly to be able to see Comet 9P/Tempel 1 which was listed as being at mag. 10.0, but was not sure of seeing it (See map on page 68 of Sky and Telescope, June 2005.); M65 and M66, R Leonis and area, M13, M92, M57 and area, ϵ Lyrae and area.

Th. May 26 15:40-15:45 UT t
Sun 1g 16s RSN 26

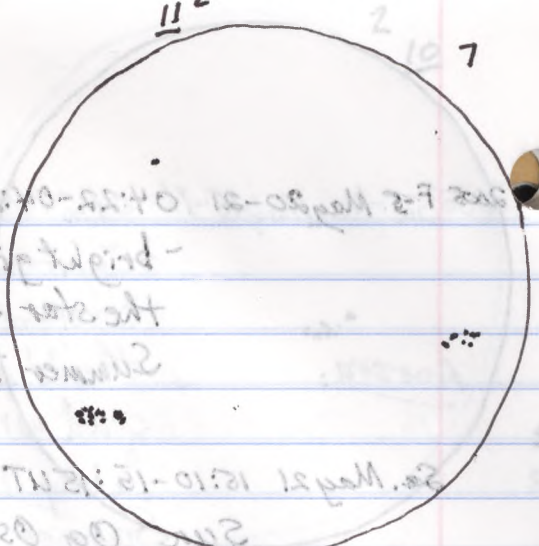
C-8, 32
T.O.F.

F. May 27 17:11-17:16 UT t
Sun 1g 20s RSN 30

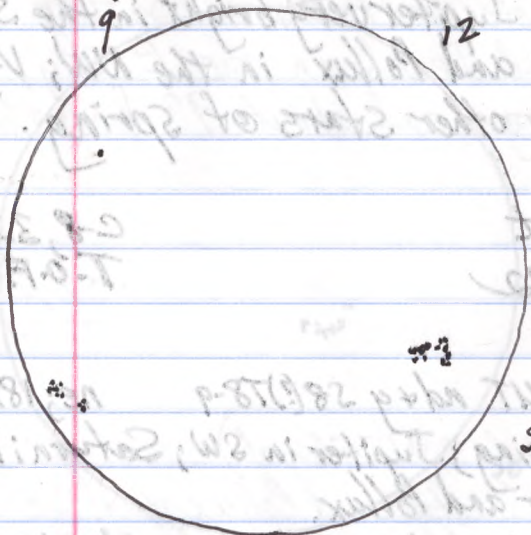
C-8, 32
T.O.F.



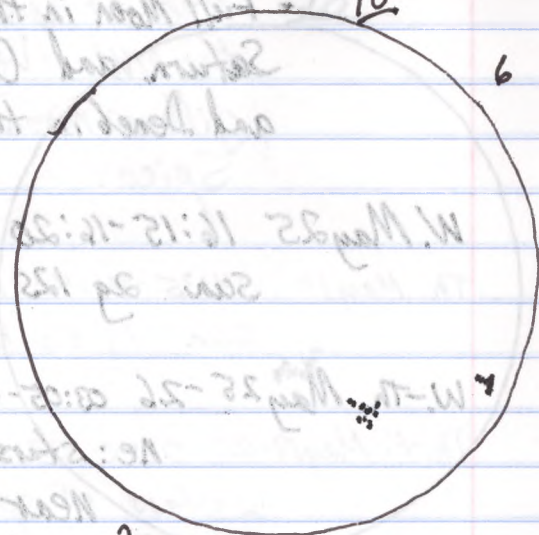
19
25.5
RSN35
May 28
15:32-15:37 UT



39
205
RSN50
May 31
17:15-17:20 UT



39
22.5
RSN52
June 1
16:50-16:55 UT



29
165
RSN36
June 2
14:55-15:00 UT

005 F.-S. May 27-28 03:25-04:35 UT y 58(?) T 9-6 (increasing haze) ne; 18X501sb
ne: stars of spring; Jupiter in SW.

18X501sb: Jupiter, area near δ Virginis - hoping possibly to see Comet 9P/Tempel 1, but was not sure of seeing it, ϵ Lyrae and other areas of Lyra including M57, M13, M92, areas of Cepheus, areas of Cygnus including β Cygni, areas of the constellation Delphinus, areas of Cepheus including δ Cephei and μ Cephei.

Sa. May 28 15:32-15:37 UT t C-8, 32
Sun 1g 25s RSN 35 T.O.F.

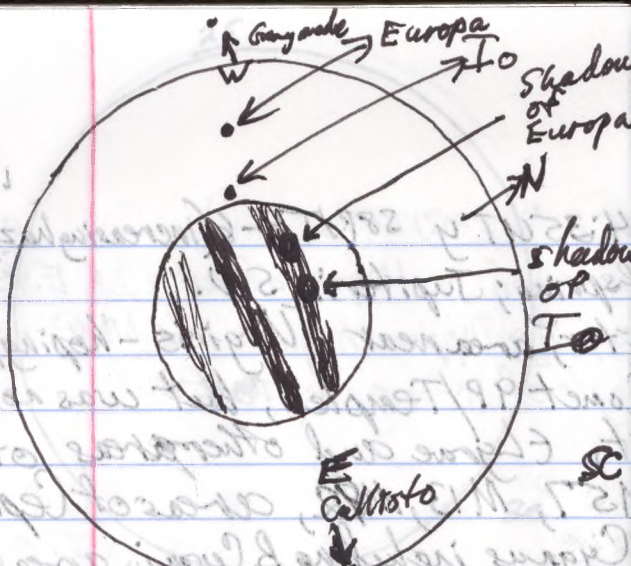
Tu. May 31 17:15-17:20 UT t C-8, 32
Sun 3g 20s RSN 50 T.O.F.

W. June 1 16:50-16:55 UT t C-8, 32
Sun 3g 22s RSN 52 T.O.F.

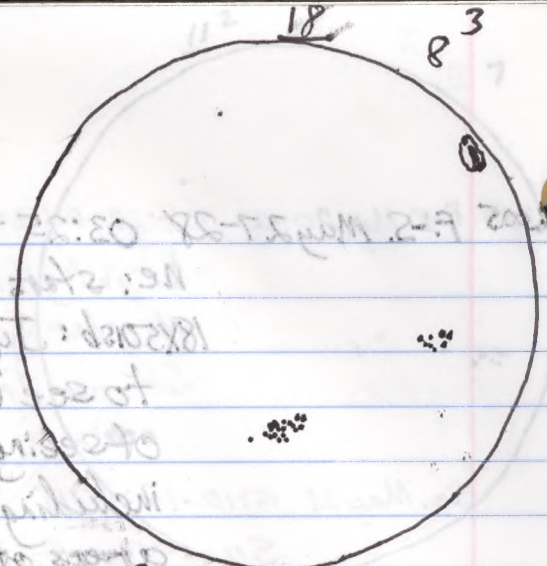
W.-Th. June 1-2 03:30-04:45 UT y 58(?) T 9-9.5 (abrupt) ^{water vapor} ne; 18X501sb
ne: stars of late spring; Jupiter in Virgo; one bright meteor of about mag. -1 in the NNE.
18X501sb: Jupiter and three of the Galilean satellites, M65 and M66, M4, M5, M16, M17, M18, M24, M13, M92, NGC 7789 in Cassiopeia, various areas of Cepheus and Cygnus, β Cygni, M27.

Th. June 2 14:55-15:00 UT t C-8, 32
Sun 2g 16s RSN 36 T.O.F.

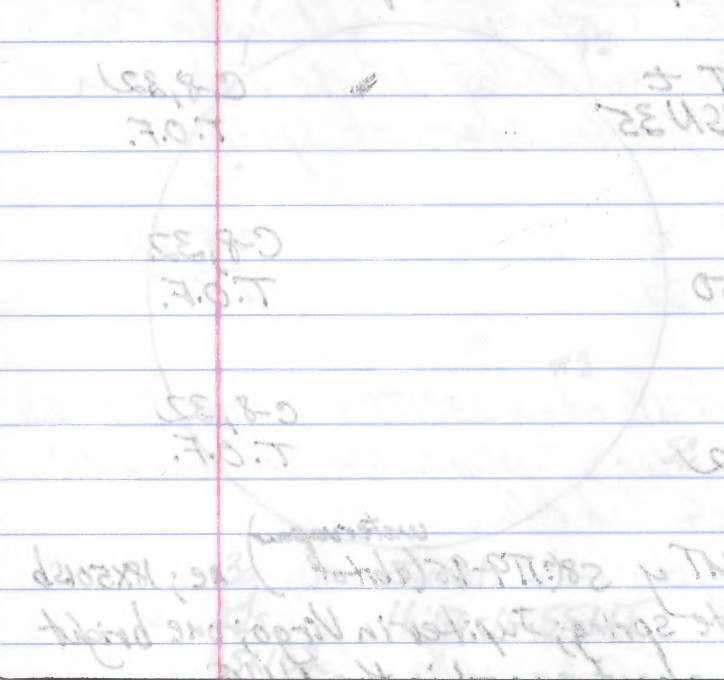
Th.-F. June 2-3 02:30-04:45 UT 00 58(?) T 3-6 (some) ^{hazy + virus cloud} ne; 20X100b; 1
ne: stars of late spring; Jupiter in Virgo in the SW.



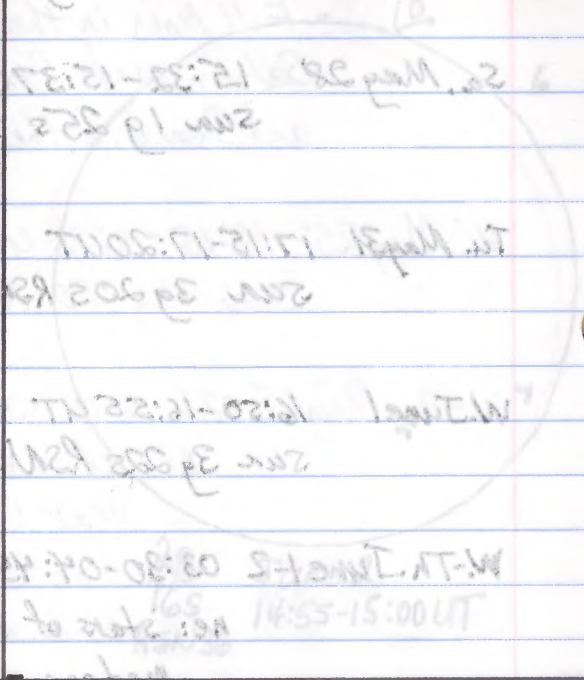
2005, June 3 4:44 UT - Jupiter showing
Io and Europa and their shadows



39 June 4
295
RSN59 17:55 - 18:00 UT

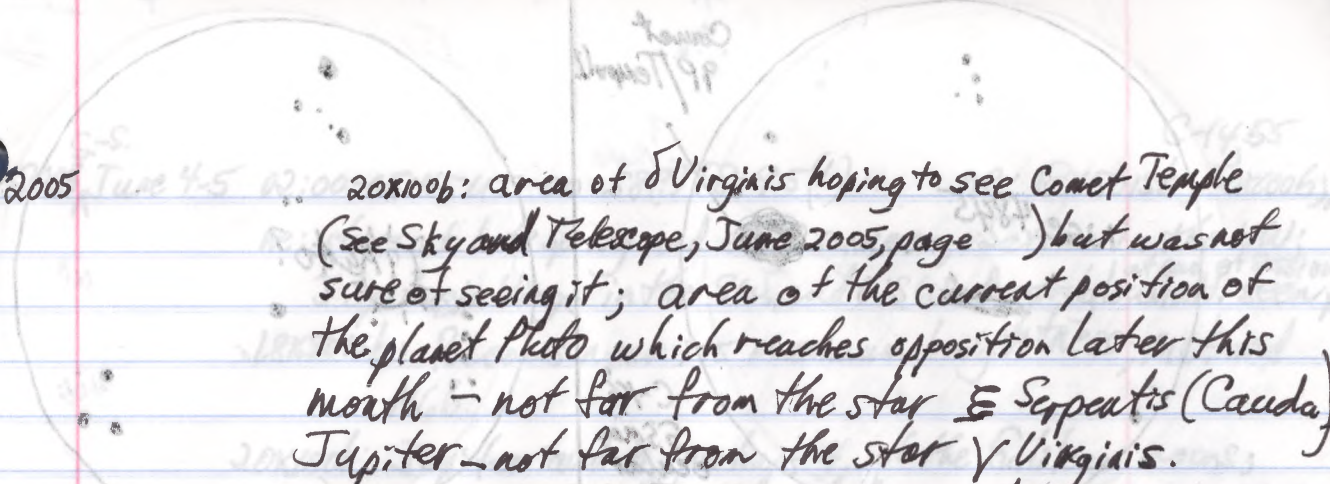


18:20:20p: Jupiter and three of the Galilean satellites
M3 and M4, M1, M2, M10, M11, M18
M17, M13, M15, M12, M14, M16, M19, M20
Northern areas of Cepheus and Cygnus
R. Roper, M37



18:20:20p: Jupiter and three of the Galilean satellites
M3 and M4, M1, M2, M10, M11, M18
M17, M13, M15, M12, M14, M16, M19, M20
Northern areas of Cepheus and Cygnus
R. Roper, M37

2005



20x100b: area of δ Virginis hoping to see Comet Temple
 (See Sky and Telescope, June 2005, page) but was not
 sure of seeing it; area of the current position of
 the planet Pluto which reaches opposition later this
 month - not far from the star ϵ Serpentis (Cauda)
 Jupiter - not far from the star γ Virginis.

C-14, 19, 15.5, 55: With the 19mm and 15.5mm oculars
 (at 205.8 and 252.3 X respectively) I observed
 Jupiter, both before and after the time of
 the Transit Egress of both II Europa at
 3:05 UT and I Io at 4:38 UT. Also a Double
 Shadow Transit occurred after 3:34 UT when
 the shadow of I Io began to cross the disk of
 the planet (See diagram). I also searched in
 the area of the star δ Virginis hoping to see
 the Comet Temple 1, but was not sure of seeing
 it.

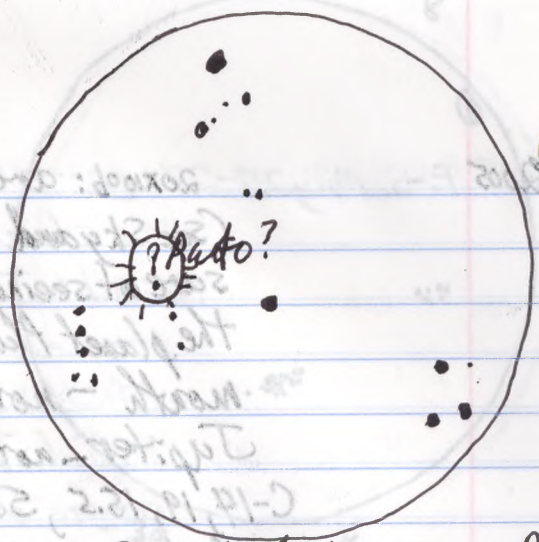
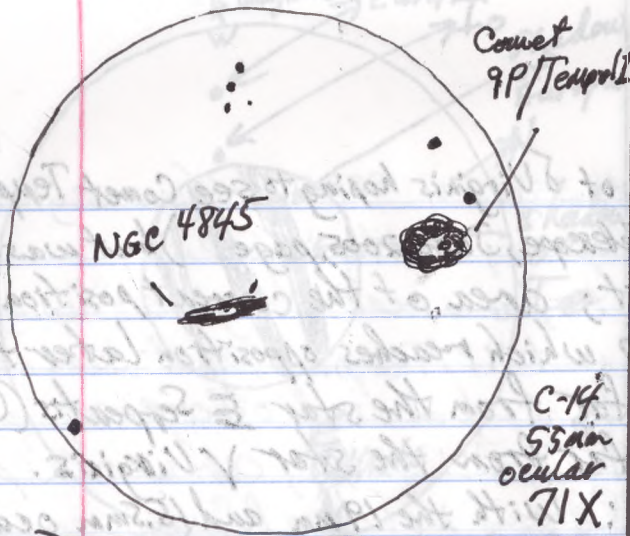
Double Shadow
 Transit on
 Jupiter.

F-S. June 3-4 03:10-04:30 UT y S 7(?) T9 ne; 18X5015b; 20x100b
 ne: stars of late spring; Jupiter in Virgo in the WSW.
 18X5015b: M4, M5, M65, M66, Jupiter, area near δ Virginis
 hoping to see Comet Temple 1, but was not
 sure of seeing it, T Cor Bor, R Cor Bor, M16,
 M17, area of Pluto near ϵ Serpentis
 20x100b: area of δ Virginis hoping to see Comet Temple 1,
 and was not certain of seeing it, but thought
 at one point that I might have seen it;
 Jupiter and 3 Galilean moons, M4, M80,
 NGC 7789, δ Cephei and area

Sa. June 4 17:55-18:00 UT t
 Sun 3g 29s RSN 59

@-8, 32
 T.O.F.

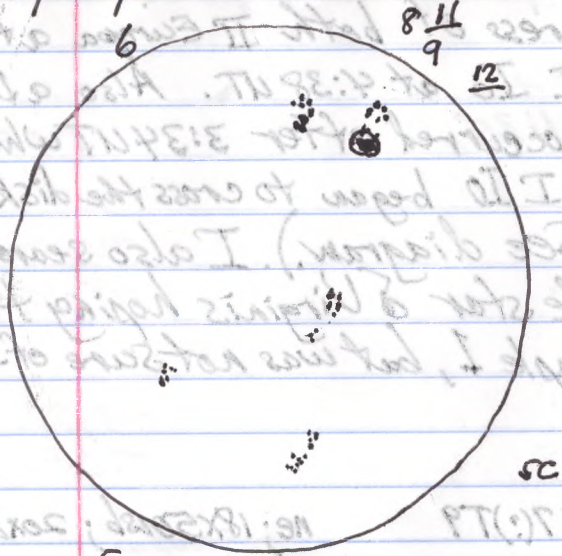
18X5015b: M4, M5, M28, M29, M16, M17, M18, M23



sc view

2005 June 5, about 04:00 UT: Area of Comet 9P/Tempel 1 including NGC 4845.

2006, June 5, about 04:30 UT: Area of the planet Photo



sc

5g June 6
46s 20:10-20:15 UT
RSN96

GR 32
T.O.F.

2 June 4 17:25-18:00 UT
Sun 3d 52s

S-S. 2005 June 4-5 02:00-05:45 UT 00 SR(?) T8-9.5(!) ne; 18x501sb; 20x100b; A C-14, 55

ne: stars of late spring and early summer; Saturn in the NW; Jupiter in Virgo in the SW and WSW. Auroral glow in N. seen ^{at end of session.}

18x501sb: R Leonis near its maximum brightness; M65 and M66

20x100b: Jupiter and 3, perhaps 4, of the Galilean moons; area of Comet 9P/Tempel 1 in Virgo; area of Pluto in Serpens Cauda.

C-14, 40, 55: M13 (!) and the nearby galaxy NGC 6207, and after searching for a considerable time I

found Comet 9P/Tempel 1 which was about 1 degree to the SSE from 5 Virginia's. Using the 55mm ocular, I found that the comet was easily in the same field of view as NGC 4845, an elongated, probably "spindle-type" of galaxy.

(See U237) The comet was diffuse, and also considerably smaller and fainter than I had expected it to be. It did not seem to be as bright as the listed magnitude 9.3. I also observed the area containing the planet Pluto and was fairly sure, perhaps not 100% sure, of having seen that planet. I wanted to check the area again soon to see if I can confirm seeing Pluto.

ne: At the end of the session, I saw a glow in the N., a glow that was probably Auroral

M. June 6 20:10-20:15 UT t

Sun 5g 46s RSN 96

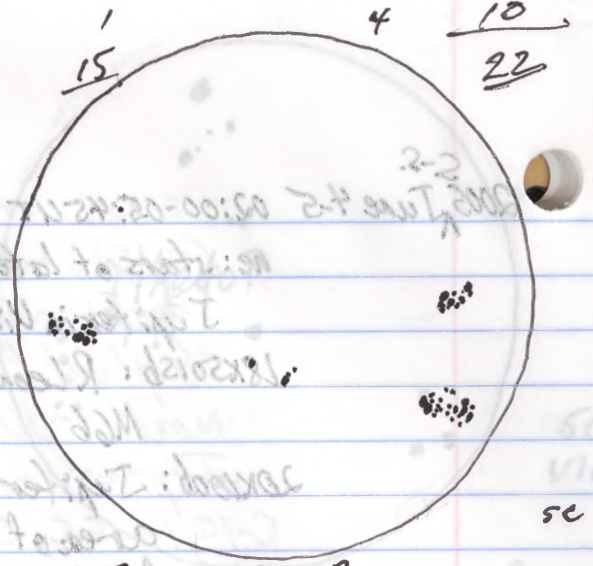
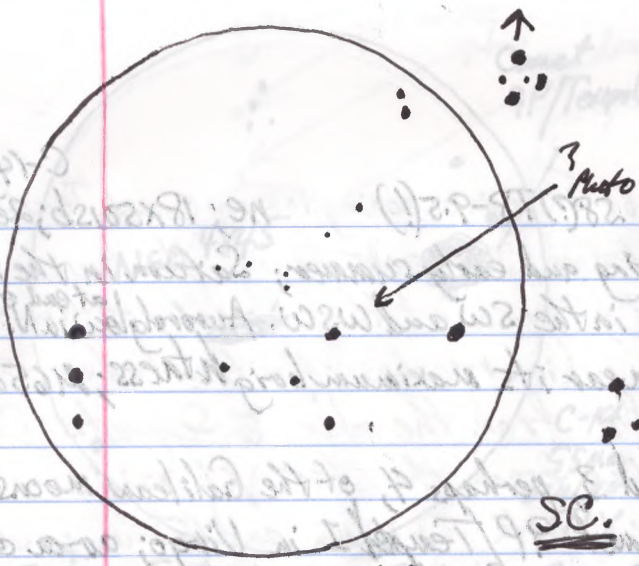
C-8, 32
T.O.F.

M-T. June 6-7 01:20-06:10 UT 00 SR(?) T8-9.1 ne; 18x501sb; 20x100b; A C-14, 55, 19, 13
ne: stars of late spring and early summer, Jupiter, Saturn in the WNW.

18x501sb: M4, M5, M22, M28, M16, M17, M18, M23,

Comet 9P/Tempel 1

Pluto probably



2005, June 7, Approximately 05:40 UT
 Area of the planet Pluto NW of Σ Ser

59 June 7
 525 15:55 - 16:00 UT
 RSN102

and after searching for a comet I found Comet PPT/Tempel 1 which was about 1 degree to the SSE from Σ Ser. The comet was 25m away. I found that the comet was mainly in the same field of view as MCG 1-2-37. The comet was definitely smaller and fainter than I had expected it to be. It did not seem to be as bright as the listed magnitude of 13. I also observed the area containing the first two objects fairly sure I have not seen them before. I was trying to check the area of the sky to see if I can confirm seeing PPT.

Comet PPT/Tempel 1
 Photo probably

At the end of the session I saw a glow in the N, a glow that was probably Auroral
 M. June 6 20:10-20:15 UT J
 Sur 29 the RSN102
 M.T. June 6-7 01:00-02:10 UT 00 281178-4
 (numbers of times)
 M2, M2.8, M3, M10, M17, M18, M23

to see if I can confirm seeing PPT.
 M. June 6 20:10-20:15 UT J
 Sur 29 the RSN102
 M.T. June 6-7 01:00-02:10 UT 00 281178-4
 (numbers of times)
 M2, M2.8, M3, M10, M17, M18, M23

2005

M24, M25, R Leonis - near, or at, maximum brightness, Jupiter.
 area of Comet 9P/Tempel 1, area of Pluto in Serpens,
 Alcor and Mizar, M100, M51, ~~T~~ Cor Bor, R Cor Bor, ^{Barnard} Star.
 20x100b: area of Comet 9P/Tempel 1; area of Pluto in Serpens,
 Jupiter and 4 Galilean moons, M22, M28, M11
 C-14: searched carefully for Comet 9P/Tempel 1
 in the area near δ Virginis, and perhaps did
 see it, but I was not 100% certain that the
 object I saw was not a galaxy. It was not
 too far from the galaxy NGC 4845, and
 so may have been the comet; M13 and
 NGC 6207; Jupiter and 4 Galilean moons;
 the area of Pluto examined carefully
 (See drawing.) One of the objects almost
 certainly was Pluto. (See on page 72 of
 the June 2005 issue of Sky and Telescope.

field of
Pluto

June 7 15:55-16:00 UT t
 Sun 59.52s RSN 102

C-8, 32
 T.O.F.

T, W. June 7⁸ 02:20-05:40 UT 00.58(?) T 8-9, then to 5 ne; 18x50ish; 20x100b; ^{C-14/55}
 ne: stars of late spring and early summer, Jupiter,
 Saturn, one bright (about mag. -1) meteor
 near Jupiter.

18x50ish: M4, M80, M5, M11, 16, M17, M18, M23, M24, M25,
 Barnard's Star and area, R Cor Bor, area of
 Pluto in Serpens, Jupiter, M10, M12.

20x100b: area of Comet 9P/Tempel 1 in Virgo, ar-
 ea of Pluto in Serpens, M11, M4, M80

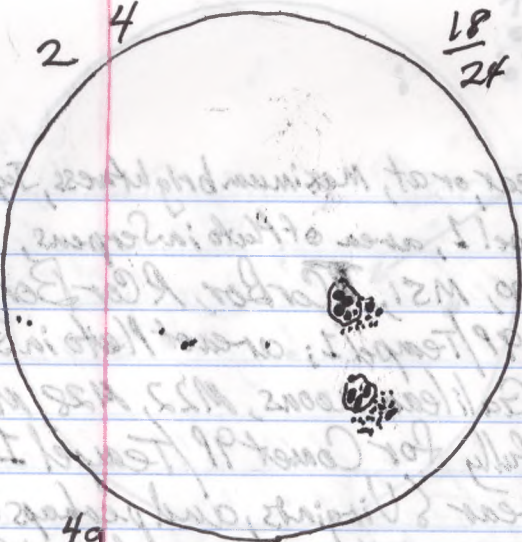
C-14: searched the area in Virgo near which
 Comet 9P/Tempel 1 was supposed to be
 according to the map in Sky and Telescope;
 located the area near ϵ Serpentis

Th. June 9 15:40-15:50 UT

Sun 49.45s RSN 80

2 4

18
24



49

485

June 9

RSN 88

15:40-15:45 UT

field of
plate

C-11
T.O.F.

June 7 12:22-12:00 UT
Sun 2522 RSN 102

June 8 02:20-02:40 UT on 289178 - planets
Mr: stars of magnitude 10 or greater; Saturn, Jupiter

Next Jupiter
Saturn, one bright (about mag. -1) meteor
Mr: stars of magnitude 10 or greater; Saturn, Jupiter

1823022: Mt. Wilson, Mt. Wilson, Mt. Wilson
Barrow's Star and area, RSN 88 area of
Plate in Saturn, Jupiter, Mt. Wilson

Barrow's Star in Virgo, area of
of Plate in Saturn, Mt. Wilson, Mt. Wilson
C-11: searched the area in Virgo near which

Comet P/Tempel 2 was supposed to be
according to the map in Sky and Telescope
located the area near 289178

2005

in which the planet Pluto was located and identified a number of the stars seen previously, including the night before and then changed to the 2" 13mm Televue Nagler eyepiece to continue to try to identify the planet by comparison with what was seen the previous night. (See previous page and diagram.) However it quickly became cloudy in that area of the sky and it remained so for a while. Before the session ended, there seemed to be a brief period when the area of the sky in Serpens Cauda where I had been observing seemed to clear somewhat; however, the clearing trend seemed to last only a short while.

W.-Th. June 8-9 ^{near Westport} 00:30-03:50 UT Skillington Park, S89T 7-8 ne; 18x50sb

ne: Before beginning the session I observed the sky both before and after sunset (which was actually at about 00:51 UT). Two people arrived for a planned observing session for the Recreation Committee of the Township of Rideau Lakes - at Skillington Park on County Road 10 south of Westport. I spotted the slender crescent moon - 2 days old - and Venus below the moon and only about 5° above the horizon. In the clubhouse I gave a short talk and showed some astrophotography slides for 4 people.

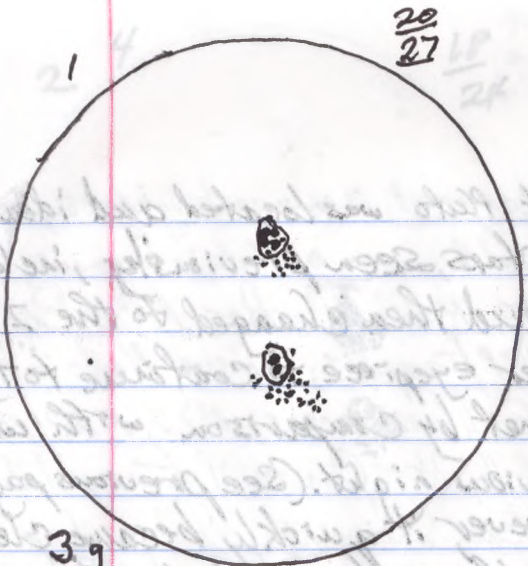
Venus.

Afterward there were 2 people who stayed for an observing session at which I pointed out Jupiter and bright stars and constellations

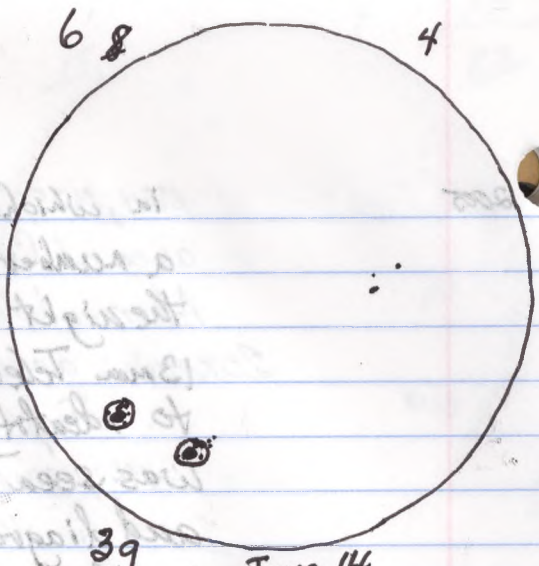
18x50sb: Early in the session after sunset I located ^{binoculars} Venus in the

Th. June 9 15:40-15:45 UT
sun 49 485 RSN 88

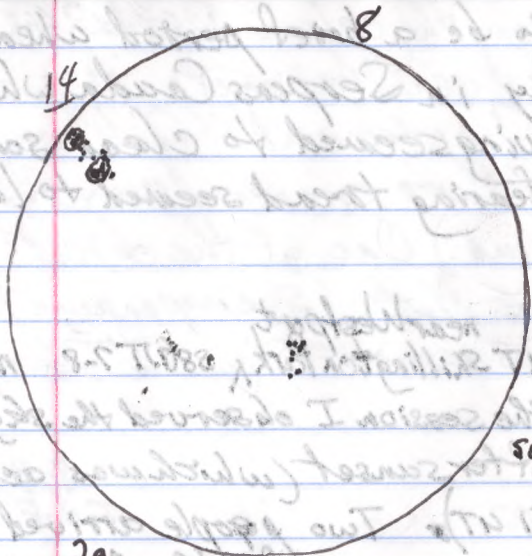
C-8, 32
T. O. F.



39
485
RSN 78
June 11
16:15-16:20 UT



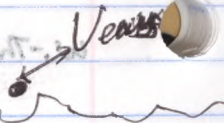
39
185
RSN 48
June 14
20:20-20:25 UT



29
225
RSN 42
June 20
14:10-14:15 UT

← Jupiter

• Saturn



Silver Lake
WNW
2005, June 22, 02:10 UT Views
WNW showing Venus and Saturn

Venus

C8.35
T.O.F.

TR. June 1 12:40-12:42 UT
Sun 49 482 RSN 88

2005 Sa. Junell 16:15-16:20 UT t
Sun 3g 48s RSN 78

C-8, 32
T.O.F.

Tu. June 14 20:20-20:25 UT t
Sun 3g 18s RSN 48

C-8, 32
T.O.F.

S.-M. June 19-20 02:20-02:25 nd & y S8P(T)3 (twl; gml) ne

With a bright gibbous moon and about an hour before the end of astronomical twilight I observed briefly, wondering if I might see any of the 3 planets, Venus, Saturn, or Mercury in the WNW, but I did not knowingly see them. The bright stars such as the Summer Triangle, the stars of the Big Dipper, Polaris, Kochab, Arcturus, Spica, Regulus and Denebola and the planet Jupiter were visible.

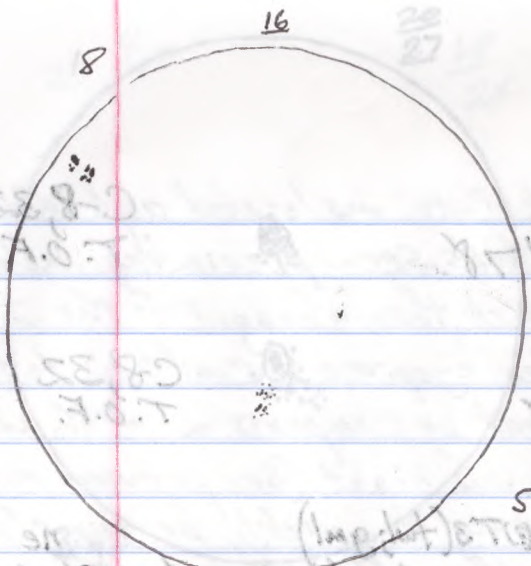
M. June 20 14:10-14:15 UT t
Sun 2g 22s RSN 42

C-8, 32
T.O.F.

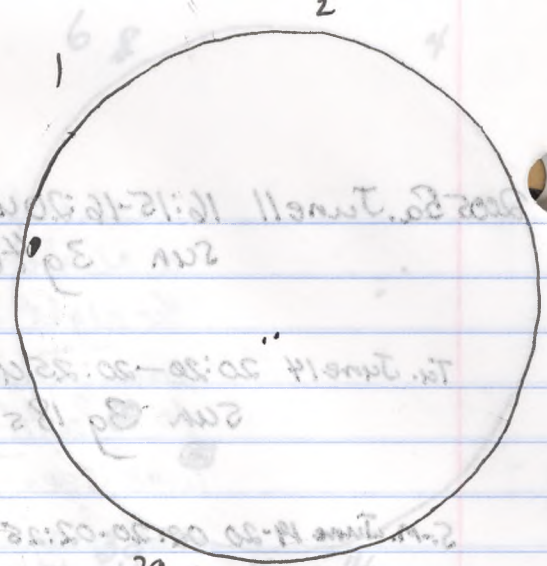
M.-T June ~~20-22~~ 20-21 01:15-02:15 UT on Hwy #7 beside Silver Lake 85mm lens
MOT Picnic Area twl ne; Camera

Venus
and
Saturn

- Hoping to observe Saturn, Venus and Mercury in the constellation Gemini, I went to the Ministry of Transportation Picnic Area along Highway #7 and beside Silver Lake where there was a good, though not perfect, view of the WNW horizon. By 01:20 UT (9:20pm EDT) I was able to see Venus very easily 10° to 15° above the WNW horizon. Before 02:00 UT, Saturn could be seen well above Venus, though not nearly as easily as Venus. I was not sure of seeing Mercury though I looked below and to the right from Venus - both naked-eye and with the camera and 85mm lens. Perhaps I should have taken my binoculars with me. Venus went behind the trees between 02:12 and 02:13 UT.

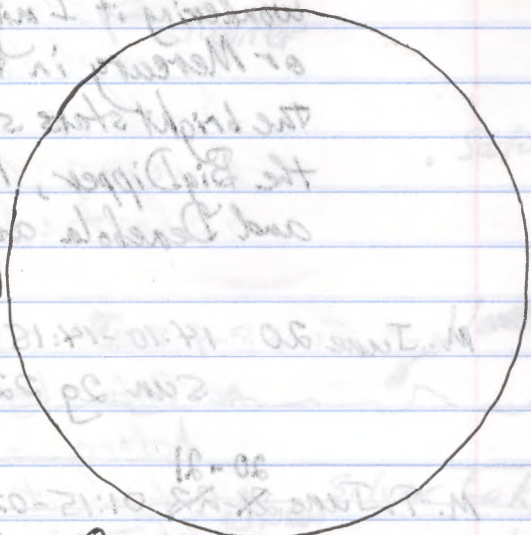


29
245
RSN 44
June 21
15:15-15:20 UT



29
35
RSN 23
June 22
14:00-14:05 UT

Saturn seen in binoculars
 Venus
 Mercury seen in binoculars
 K 3.7°
 K 2.9°

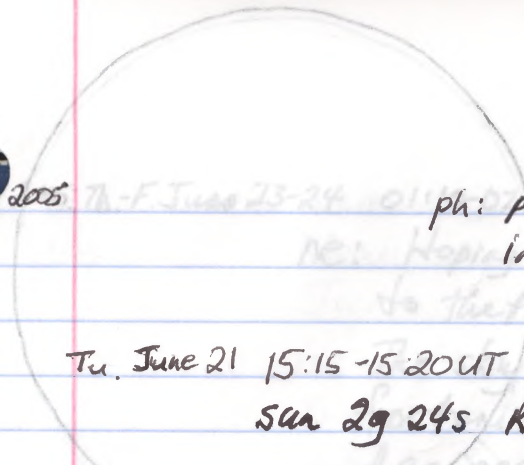


WNW Silver Lake NW

2005, June 23 01:40 UT View to WNW during twilight over Silver Lake.

09
05
RSN 0
June 23
16:20-16:25 UT

2005



ph: photographed area of Venus and Saturn
in the WNW.

Tu. June 21 15:15-15:20 UT ±
Sun 29 24s RSN 44

C-8, 32
T.O.F.

W. June 22 14:00-14:05 UT ±
Sun 29 35 RSN 23

C-8, 32
T.O.F.

W-Th. June 22-23 01:10-02:20 UT ^{on Hwy #7 beside Silver Lake} MO Picnic Area, twl ne; 18x50 15b

ne: Hoping to see Saturn, Venus and Mercury I went to the Picnic Area along Highway #7 and beside Silver Lake. Conditions were good. Sunset had been at about 00:57 UT. I easily saw Venus at about 01:13 UT. Later I also saw Jupiter in the SW and later Regulus in the W and Spica in the SW.

Venus

Mercury
and
Saturn

18x50 15b: At about 01:24 UT I saw Mercury in the binoculars and also Saturn in the binoculars. Mercury was down slightly and to the right from Venus, about $\frac{1}{2}$ a binocular field-of-view away, i.e., about 2 degrees away. Saturn was up slightly and to the left and about 1 field-of-view away, i.e., about 3.7 degrees away, since that is the field-of-view for these binoculars. At about 02:09 UT Mercury went behind the trees, and Venus also disappeared at about 02:14 UT. Mercury appeared brighter in the binoculars than Saturn. I did not claim to have seen Saturn or Mercury with the naked eye.

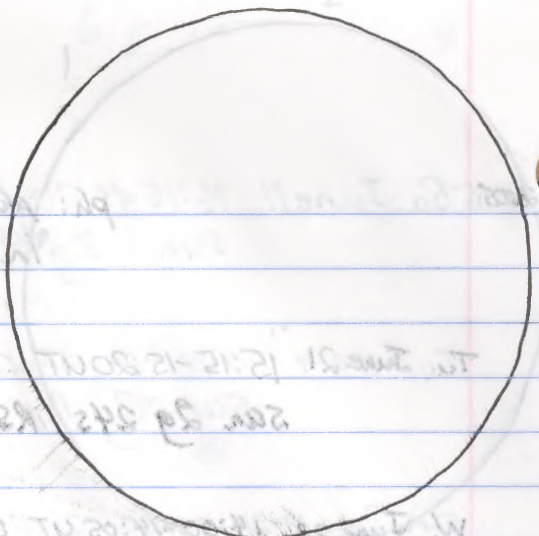
(See diagram.)

ph: Photographed area of Venus, Mercury and Saturn.

Th. June 23 16:20-16:25 UT ±
Sun 09 0s RSN 0

C-8, 32
T.O.F.

Saturn (in binoculars) • Venus (in binoculars)
 • Mercury (in binoculars)



50

WNW

NW

2005, June 24, 01:40 UT View to the WNW during twilight over Silver Lake

05 June 24
 RSNO 17:00-17:05 UT

Notes: Hopping to see Saturn, Venus and Mercury I went to the picnic area along Highway #1 and beside Silver Lake. Conditions were good. Saturn had been at about 01:15 UT. I easily saw Venus at about 01:15 UT. Later I also saw Jupiter in the SW and later Regular in the W and Spica in the SW. At about 01:40 UT I saw Mercury in the binoculars and also Saturn in the binoculars. Mercury was down slightly and to the right about 01:40 UT. Saturn was about 01:40 UT. I saw Saturn about 01:40 UT. I did not claim to have seen Saturn or Mercury with the naked eye. (See diagram.)

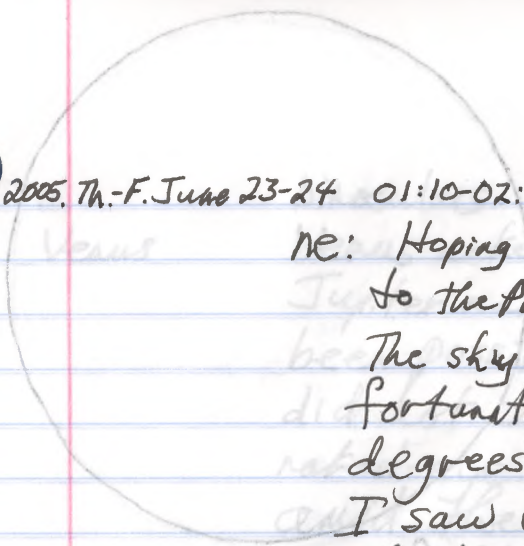
Venus
 Mercury
 Saturn
 17:00-17:05 UT

08.33
 T.O.F.

±

Th June 23 16:00-16:30 UT
 2nd of 02 RSNO

2005. Th.-F. June 23-24 01:10-02:20 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area ^{ne;} twl 18X50ISB



ne: Hoping to see Venus, Saturn, and Mercury I went to the Picnic Area along Hwy #7 beside Silver Lake. The sky was generally very cloudy, but fortunately there was an area up about 25 degrees in the NW which was largely clear. I saw Venus just below the clouds at about 01:30 UT and right afterward saw Mercury and Saturn in the binoculars, but though I tried, I did not claim to see Mercury and Saturn with the unaided eye. At one point I also saw Jupiter amid the clouds in the SW.

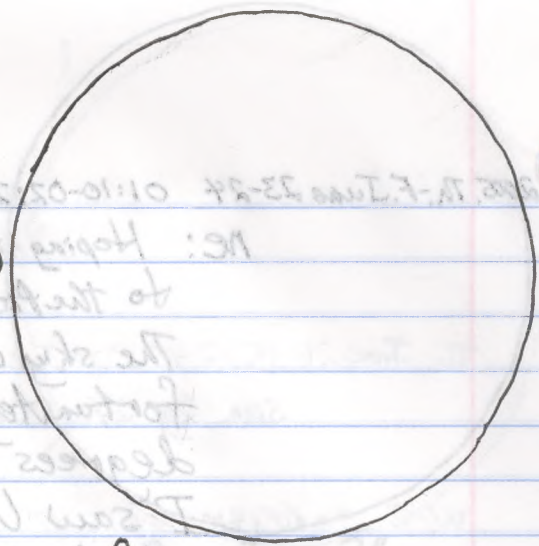
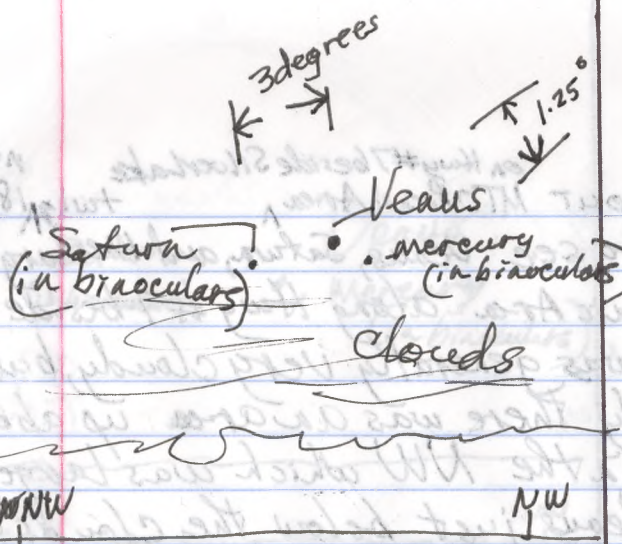
Venus
Mercury
and
Saturn

18X50ISB: I saw Mercury in the binoculars - about 1.5 degrees from Venus. Saturn was probably about 3.5 degrees from Venus. Mercury ~~Venus~~ disappeared behind the trees at about 02:11 UT. Venus disappeared at about 02:15 UT. (See diagram.)
ph.: photographed area of Venus, Mercury and Saturn.

F. June 24 17:00-17:05 UT ϵ C-8, 32
Sun \odot \odot S RSN O T.O.F.

F.-S. June 24-25 01:10-02:10 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area ^{ne;} twl 18X50ISB.

ne: Hoping to see Venus, Saturn and Mercury, I again went to the Picnic Area along Hwy #7 beside Silver Lake. The sky was generally very clear, but there was an area up about 20° to 25° in the NW which was somewhat cloudy and hazy (Cf.: the previous night!). At about 01:13 UT I spotted Jupiter fairly high in the SW in the



sc.

2005, June 25, 01:45 UT. view to WNW to close arrangement of 3 planets.

09 05 June 25
RSNO 15:00 - 15:05 UT

at about 02:12 UT (see program).
 at about 02:11 UT Venus disappeared
 Venus disappeared behind the trees at
 about 3.2 degrees from Venus. Mercury
 1.5 degrees from Venus. Saturn was probably
 I saw Mercury in the binoculars - about
 and the clouds in the SW.
 eye. At one point I also saw Jupiter
 to see Mercury and Saturn with the unaided
 but then I took a look at the clouds

at about 02:12 UT (see program).
 at about 02:11 UT Venus disappeared
 Venus disappeared behind the trees at
 about 3.2 degrees from Venus. Mercury
 1.5 degrees from Venus. Saturn was probably
 I saw Mercury in the binoculars - about
 and the clouds in the SW.
 eye. At one point I also saw Jupiter
 to see Mercury and Saturn with the unaided
 but then I took a look at the clouds

Venus

binoculars. Later, at about 01:26 I spotted Venus naked-eye and at 01:28, I saw Jupiter naked-eye, though it may well have been possible to see it before that time. I did not claim to see Mercury or Saturn naked-eye. I lost sight of Venus amid the low clouds at about 02:00 UT or shortly thereafter

and
Mercury
and
Saturn
very close

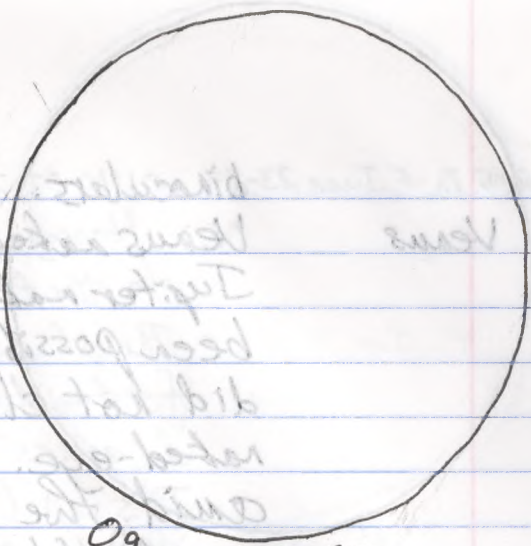
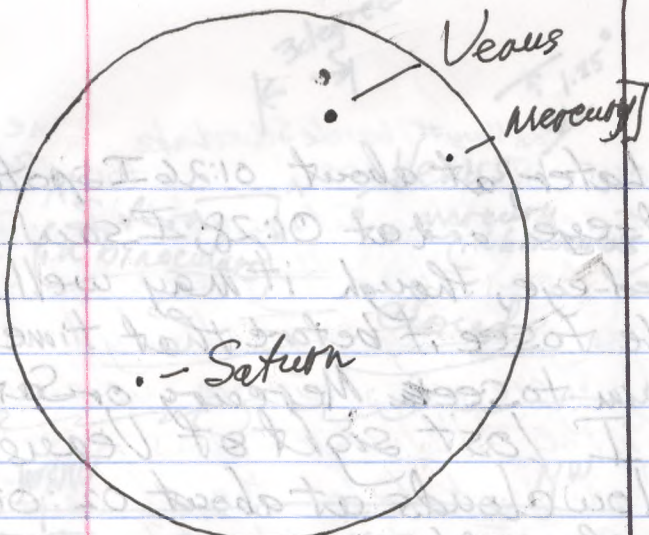
18x50 ISB: At about 01:15 UT I saw Venus in the binoculars. At 01:22 I saw Mercury in the binoculars - about 1.25 degrees from Venus. Also, in the binoculars I saw Saturn finally at about 01:43. From Venus it was in a slightly different direction from the previous night and about 3 degrees away. Low-lying clouds prevented seeing the planets disappear behind the trees; those clouds blocked the view about 10 minutes or more before the time when the planets disappeared the previous evening. (See diagram.)
phi: photographed the area of the sky where Venus, Mercury and Saturn were located - mainly between 01:40 and 02:00 UT.

Sa. June 25 15:00-15:05 UT to
Sua Og Os RSN0

C-8, 32
T.O.F.

Sa-Su. June 25-26 01:00-03:30 UT in Kingston at N ^{Ken Kingdon's place} twl; later S/T3 ne; 18x50mm ^{20x100mm}

ne: A gathering of Kingston Centre members took place at the home of Ken and Simone Kingdon at 991 Chancery Street in Kingston's west end. Perhaps about 20 people attended including Kim Hany and Kevin Kell, Dave and Amy Pianosì



2005, June 26 01:45 UT View to WNW in
the 20X100 binoculars - about 15° above the horizon.

09
05
June 26
RSNO 16:15 - 16:20 UT

At 01:32 T 20x100 binoculars
in the binoculars - about 1.5 degrees from
Venus. Also in the binoculars I saw Saturn
finally at about 01:43. From Venus it was
in a slightly different direction from the
previous night and about 3 degrees away
low-lying clouds prevented seeing the
planets disappear behind the trees, these
clouds blocked the view about 10 minutes
or more before the time when the planets
disappeared the previous evening. (see diagram.)
He photographed the area of the sky where
Venus, Mercury and Saturn were located.
Mainly between 01:40 and 02:00 UT.

and
Mercury
and
Saturn
very close

June 22 15:00-16:00 UT
Sun at 02 22W10
C 8.35
7.07

at the base of Ken and Simone Kingston at
991 Clarendon Street in Kingston's west end
perhaps about 50 people attended including
Kingston and Kevin Kelly, Dave and Amy Hovasi

June 22 01:00-02:30 UT in Kingston at
20-24 June 22-24 01:00-02:30 UT in Kingston at
20-24 June 22-24 01:00-02:30 UT in Kingston at

12005

and their son, Tom Dean, Norm Welbank and his wife, Hank Bartlett and his wife, Susan Gagnon, Sylvain and Laura Gagné and their son, Doug Angle and his daughter, Steve Manders, Dianne Torney, Dave McGuire, and another couple and another gentleman. At about 3:00 p.m. E.D.T, some of us went to tour the site of the former Queens University Westbrook Radio Telescope. I took some photographs of the old remains of the equipment on the site near a church on Woodbine Road, west of Kingston. Later starting at about 6:00 p.m. E.D.T we ate a picnic style lunch and some of the guests went into the swimming pool. At about 01:00 UT, I set up my 20x100 binoculars near the trees in the open area south of Ken's backyard.

Venus,

With the naked-eye, I saw Venus in the WNW and later some stars and the planet Jupiter
18x50isb: Venus and Mercury in the WNW.

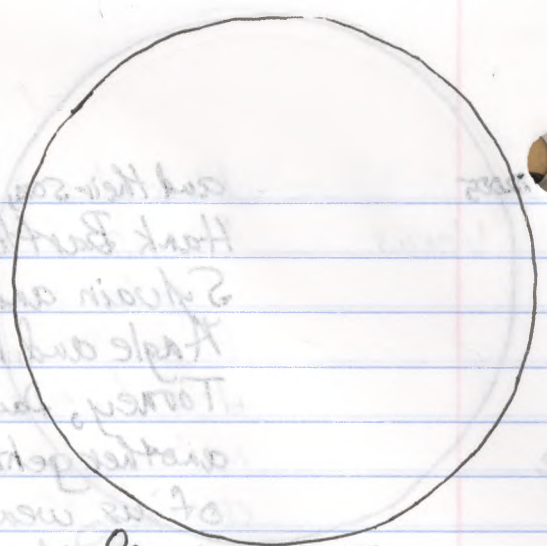
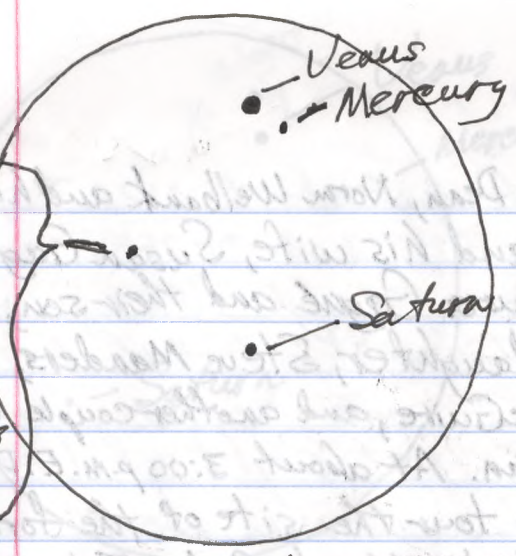
Mercury,
and Saturn

20x100b: Venus, Mercury and Saturn easily in the same 2.5 field-of-view. Later I observed Jupiter, but because of haze and light pollution the view was not good. Near the end of the session, I tried to see M4, but was not even sure of seeing it. The transparency was very poor. Overall it was an enjoyable event, but the sky transparency was not good. (See diagram)

Sa. June 26 16:15-16:20 UT +
Sun Og Os RSN O

C-8, 32
T.O.F.

Approximate
Apparent
position
of
Saturn
on
the previous
evening.



50.

2005, June 27 01:55 UT View in 18X50IS
binoculars showing 3 planets

09
03
RSND

June 27
16:15-16:20 UT

Equipment for the site near a church on Woodlark
Road, west of Kingston. Later starting at
about 6:00 AM E.D.T. we ate a picnic style
lunch and some of the guests went into the
swimming pool. At about 01:00 UT I set
up my 50x100 binoculars near the trees in
the open area south of Ken's backyard.
With the naked eye, I saw Venus in the WNW
and later some stars and the planet Jupiter.
18x50IS: Venus and Mercury in the WNW
30x100: Venus, Mercury and Saturn easily
in the same 5.2 field-of-view. Later

Venus,
Mercury,
and Saturn

T. O. F. 2.8.32

27 June 2005 16:15-16:20 UT
Sun Op RSND

2005 S.-M. June 26-27 01:10-02:10 UT on Hwy #7 beside Silver Lake
MTO Picnic Area twl ne; 18X50ISb

ne: Hoping again to see Venus, Mercury, and Saturn I went to the Picnic Area beside Silver Lake. The sky was generally clear. At 01:16 UT I saw Venus naked-eye, and almost immediately (at 01:16 UT also) I saw Mercury in the binoculars (see below.) Later I also saw Jupiter naked-eye

Venus and Mercury 18X50ISb: EXTREMELY CLOSE! At 01:16 UT I saw Mercury in the binoculars. It was only about $\frac{1}{2}$ of a degree from Venus. Later, probably at about 01:53 UT I spotted Saturn about 1 degree below Venus. It appeared to the right of where I had expected to see it. (See diagram.)

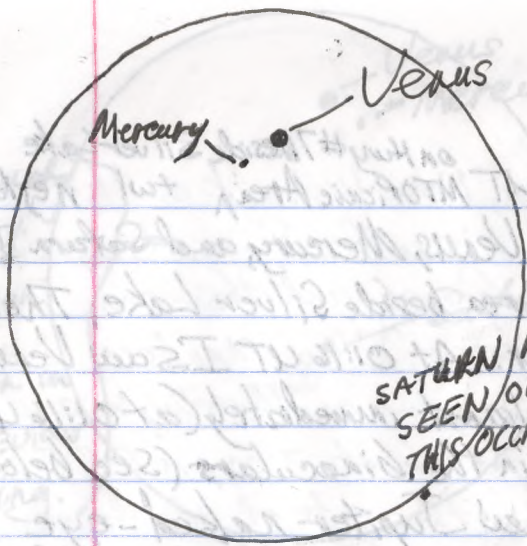
ph.: I took several photographs, hoping to include the 3 planets, Venus, Mercury and Saturn in the frames. I left the site before Venus set. The mosquitoes were unpleasant.

M. June 27 16:15-16:20 UT t C-8, 32
sun 0g 0s RSN0 T.O.F.

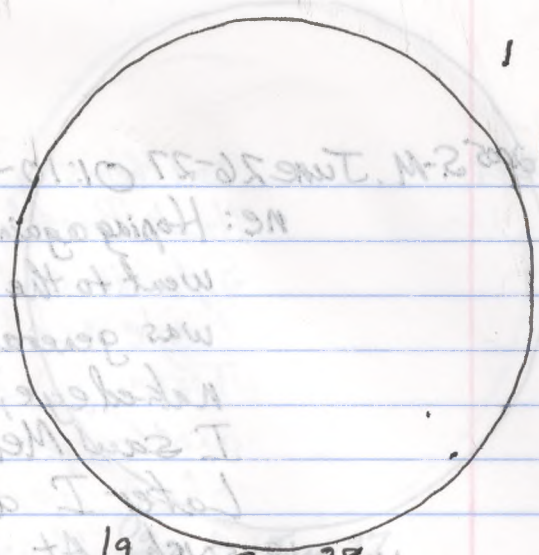
M.-T. June 27-28 01:10-02:00 UT on Hwy #7 beside Silver Lake
MTO Picnic Area twl ne; 18X50ISb

ne: Again hoping to see Venus, Mercury, and Saturn, I went to the Picnic Area beside Silver Lake. I found that the sky was probably hazier and perhaps cloudier than I thought it was - in the low north western part of the sky where I wanted to see the planets. Not until 01:29 UT did I see Venus and Mercury in the binoculars and immediately, or within seconds, I saw Venus naked-eye. Later I saw Jupiter much higher in the SW

18X50ISb: At 01:29 UT, as mentioned, I saw Venus



SATURN NOT SEEN ON THIS OCCASION



55

2005, June 28 01:40 UT View in the 18x50 IS binoculars showing Venus and Mercury

19
15
RSN11

June 28
14:50-14:55

2-8-33
T.O.F.

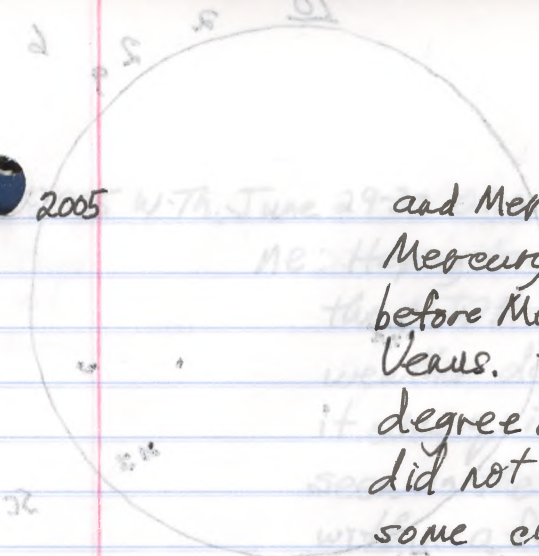
2005 JUN 27 16:12-16:50 UT
2005 JUN 27 16:12-16:50 UT

M. June 27 16:12-16:50 UT
2005 JUN 27 16:12-16:50 UT

18x50 IS: At 01:30 UT as mentioned, I saw Venus
 immediately or within seconds, I saw Venus
 see Venus and Mercury in the binoculars and
 to see the planets. Not until 01:40 UT did I
 with western part of the sky where I would
 clearer than I thought it was in the low
 found that the sky was probably lower and not
 I went to the picnic area beside Silver Lake. I
 re: Again hoping to see Venus, Mercury and Saturn.

M. June 27 16:12-16:50 UT
 2005 JUN 27 16:12-16:50 UT
 re: Hoping again to see Venus, Mercury and Saturn
 went to the picnic area beside Silver Lake. I
 was generally clear. I saw Venus and Mercury
 later I saw Jupiter and Saturn.
 later I saw Jupiter and Saturn.
 later I saw Jupiter and Saturn.

2005



Venus and Mercury
again EXTREMELY CLOSE!
(7th daily observation)
(June 21, 22, 23,
24, 25, 26, 27.)

and Mercury in the binoculars and was surprised to see Mercury now on the left side of Venus, whereas before Mercury had appeared on the right side of Venus. Though I scanned the area about a degree or more below Venus and Mercury, I did not knowingly see Saturn. There was some cloud in the area up to about 5° above the horizon. By about 01:56 UT, I was ready to leave the site since there seemed little hope of seeing Saturn on that occasion and since the mosquitoes were unpleasant. (See diagram.) It was great to have seen Mercury and Venus so close together - both the previous night, and on this occasion, when they were less than $\frac{1}{10}$ of a degree apart. The Observer's Handbook listed them as being 0.06° apart at 16h UT!

Ph: -photographed area of Venus and Mercury.

Tu. June 28 14:50-14:55 UT t C-8, 32
Sun lg ls RSN 11 T.O.F.

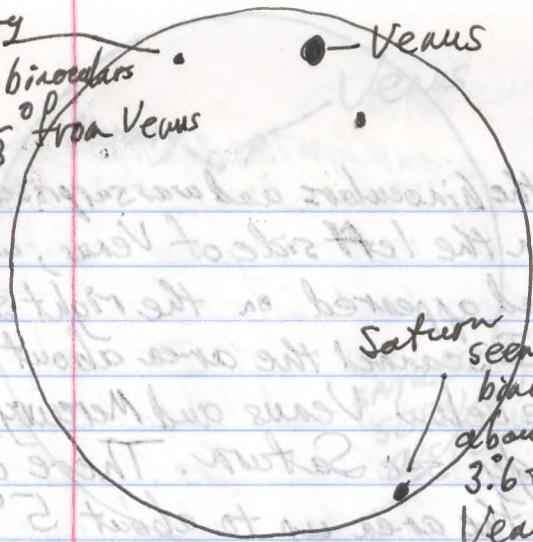
T-W. June 28-29 01:00-02:00 UT on Hwy #7 beside Silver Lake
MTO Picnic Area twl ne; 18X50 ISb

ne: Hoping to see Venus, Mercury and Saturn, I went again to the MTO Picnic Area beside Silver Lake. However, I found that there were fairly heavy clouds in the NW sky up to about 20° to 30° from the horizon. Some of the sky was at least partly clear. However, I did not see the trio of planets I had wanted to see. I did see Jupiter high in the SW.

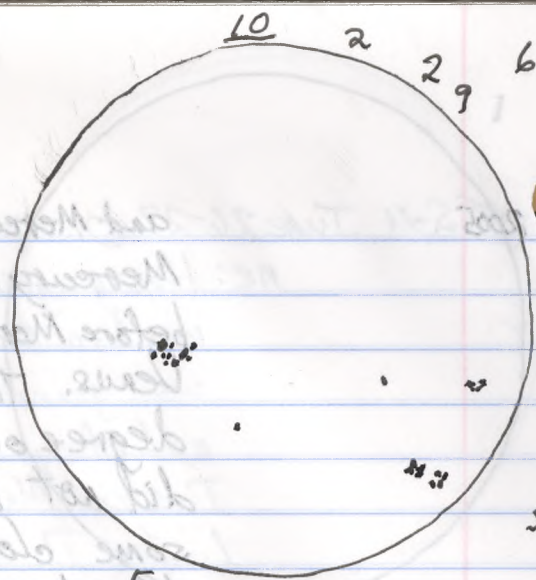
-clouded out
from seeing
Venus and Mercury

18X50 ISb: I was able to observe Jupiter high in the SW. Though I repeatedly swept the NW, I did not see the trio of planets - because of the clouds in that area of the sky.

Mercury
seen in binoculars
about $\frac{1}{3}^\circ$ from Venus



Saturn
seen in
binoculars
about
3.6 from
Venus



2005, June 30 01:45 UT view in the
18X56 IS binoculars showing Venus, Mercury, Saturn

59
295
RSN 79

June 30
14:35-15:40 UT

Observer's handbook listed them as being 0.2 apart.
Previous night, and on this occasion, when they
were less than 1/2 of a degree apart - both the
Mercury and Venus so close together - both the
(See diagram). It was great to have seen
and since the magnitudes were unimportant.
little hope of seeing Saturn on this occasion.
Mr. - photographs of Venus and Mercury
at 14:11 UT!

18x56 IS: I was able to observe Jupiter high in the SW.
in the SW. I reported I repeatedly swept the
at the clouds in that area of the sky.
I did not see the two of planets - because
of the clouds in that area of the sky.
The first planet I had wanted to see. I did not see
was at least partly clear. However I did not see
30° to 20° from the horizon. Some of the sky
fairly heavy clouds in the NW sky up to about
silver lake. However, I found that there were
went again to the MTO River Area beside
NG: Hoping to see Venus, Mercury and Saturn, I

2005 W-Th. June 29-30 01:00-02:20 UT MTO Picnic Area ^{on Hwy #7 beside Silver Lake} twl ne; 18X50 ISb

ne: Hoping to see Venus, Mercury and Saturn, I went to the MTO Picnic Area beside Silver Lake. Though the weather during the day had been hazy and cloudy, it was quite clear during the session. Venus was seen in the binoculars at 01:16 UT (9:16 p.m. E.D.T.) and within a few seconds, or less than a minute, Mercury was seen also in the binoculars. At about the same time Venus was seen naked-eye, and so was Jupiter in the SW sky. Venus, when first seen was about 10° above the WNW horizon.

Venus
and
Mercury

18X50 ISb: At about 01:16 UT Venus, and very soon thereafter Mercury were seen in binoculars. Mercury was almost directly to the left and about $\frac{1}{3}$ of a degree from Venus. Saturn was seen only for a short while, perhaps because of the clouds below Venus and above the trees on the distant horizon. Saturn was about 3.6 degrees down and a bit to the right from Venus.

ph: I photographed the area of the sky containing Venus, Mercury and Saturn.

Th. June 30 15:35-15:40 UT \pm
Sun 5g 29s RSN 79

C-8, 32
T.O.F.

Th.-F. June 30 - July 1 01:05-01:55 UT MTO Picnic Area ^{on Hwy #7 beside Silver Lake} twl ne; 18X50 ISb

ne: Hoping to see Venus, Mercury, and Saturn, I went to the MTO Picnic Area near Silver Lake. At about 01:28 UT (9:28 p.m. E.D.T.) I spotted Venus naked-eye and later observed Jupiter high in the SW.

18X50 ISb: At about 01:29 UT (9:29 p.m. E.D.T.),

Mercury

Venus

0.7°

Saturn
NOT SEEN

because of
clouds

2005, July 1, 01:40 UT View in the 18X50S
binoculars. Venus and Mercury about 0.7° apart

Venus
and
Mercury

AT June 30 12:32-12:40 UT ±
Sun 2° 32' E 29° 22' N

AT June 30 July 1 01:05-01:22 UT
nc: Hoping to see Venus, Mercury and Saturn, I went
to the MTD Area near Silver Lake. At about
01:12 NT (9:38 pm E.D.T.) I spotted Venus red-orange
and later observed Jupiter high in the SW.
18X50 SP: At about 01:22 NT (9:38 pm E.D.T.)

2005

Venus
and
Mercury

I spotted Venus and Mercury in the binoculars. Though I scanned the area carefully, I did not see Saturn in the area below Venus. It was probably because of the fairly heavy clouds in the area between Venus and the horizon. (See diagram.)
 ph.: I photographed the area of Venus and Mercury.

F.-S. July 1st 01:15-01:30 UT ^{at Bob & Lucia Davis place} in Syracuse ^{on the street} twl ne; 18x50isb

ne: Having gone to Syracuse, I observed with Denise and Bob and Lucia Davis on the street near their house where there was place to have a view of the WNW sky where Venus was to be seen. Venus was seen easily about 10° or 12° above the WNW horizon. Jupiter was seen in the SW.

18x50isb: I was easily able to see Mercury about 1° to the left and down slightly from Venus. Jupiter was also seen in the binoculars.

Venus
and
Mercury

S.-S. July 2-3 01:15-01:20 UT ^{at Bob & Lucia Davis place} in Syracuse ^{on the street} twl ne; 18x50isb

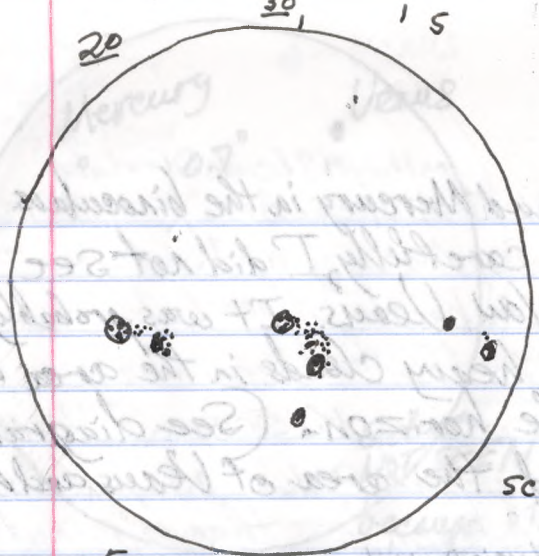
ne: From the same place as the previous night we were able to see Venus easily naked eye. Jupiter was also seen.

18x50isb: Mercury was seen with the binoculars about 1° from Venus. Jupiter was also seen - in the SW.

Venus
and
Mercury

S.-M. July 3-4 01:15-01:20 UT ^{at Bob & Lucia Davis place} in Syracuse ^{on the street} twl ne; 18x50isb

ne: Having gone to the church the previous day for the baptism of Chris and Amy Durney's son (Bill and Marylou Rice's grandson), and having one to the Big Family picnic at Green Lakes State Park that day, Bob Davis and I went out to observe Venus and saw it in approximately



59 July 6
 575 16:20-16:25 UT
 RSN107

and Bob and Lucien Davis on the street very dark
 house where there was place to have a view of the
 when sky where Venus was to be seen. Venus
 was seen easily about 10 or 15° above the sun
 horizon. Jupiter was seen in the SW.
 18x25: I was easily able to see Mercury about
 1° to the left and down a little from Venus.
 Jupiter was also seen in the binoculars.

at Bob's house
 2-2 July 23 01:12-01:30 UT in 25x75 binoculars
 NE: From the same place as the previous night we were
 able to see Venus easily naked eye. Jupiter was
 also seen

18x25: Mercury was seen with the binoculars
 about 1° from Venus. Jupiter was also
 seen - in the SW.

at Bob's house
 2-M. July 3-4 01:12-01:30 UT in 25x75 binoculars
 NE: Having gone to the church the previous day for
 the baptism of (Liz and Amy) (Liz was 20) (Liz
 and Marylou Rice's grandsons), and having one
 to the dip found piece at Green Lakes
 State Park that day, Bob Davis and I went out
 to observe Venus and saw it in opposition

I spotted Venus in the binoculars. I did not see
 around the area. I did not see
 in the area. It was mostly because
 of the faint Venus circle in the area between
 Venus and the horizon. (See diagram.)
 Mr. T. Photography

7-2 July 1912-01:30 UT in 25x75 binoculars
 NE: Having gone to

Venus and Mercury

2-2 July 23 01:12-01:30 UT in 25x75 binoculars
 NE: From the same place as the previous night we were
 able to see Venus easily naked eye. Jupiter was
 also seen

Venus and Mercury

2-M. July 3-4 01:12-01:30 UT in 25x75 binoculars
 NE: Having gone to the church the previous day for
 the baptism of (Liz and Amy) (Liz was 20) (Liz
 and Marylou Rice's grandsons), and having one
 to the dip found piece at Green Lakes
 State Park that day, Bob Davis and I went out
 to observe Venus and saw it in opposition

2005

Venus and Mercury

(both seen near each other on 12 of 13 consecutive days!)

the same place as on the previous evenings. I also saw Jupiter in the SW.

18X5015b: Mercury and Venus were seen about 1° apart. Once again Saturn was not seen below Venus. There were trees in part of the area below Venus,

M.-T. July 4-5 01:05 - 01:35 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area twl ne; 18X5015b

ne: With the clouds, I did not get to see Venus or Mercury. I did see lightning in the distance

18X5015b: I did not see Mercury or Venus.

Ti.-W. July 5-6 01:05 - 01:20 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area twl ne; 18X5015b

ne: With the overcast sky, I did not see Venus or Mercury.

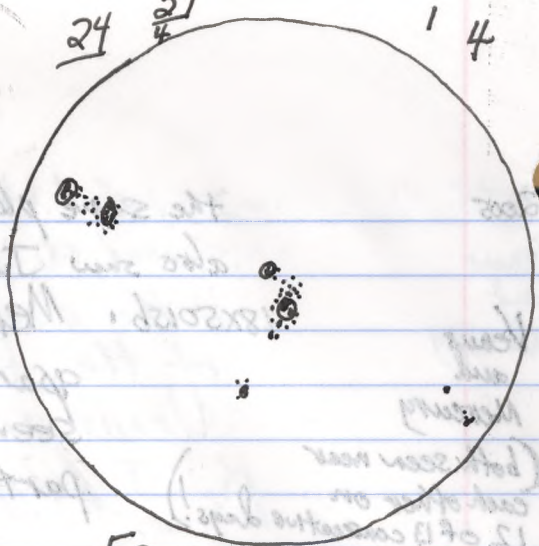
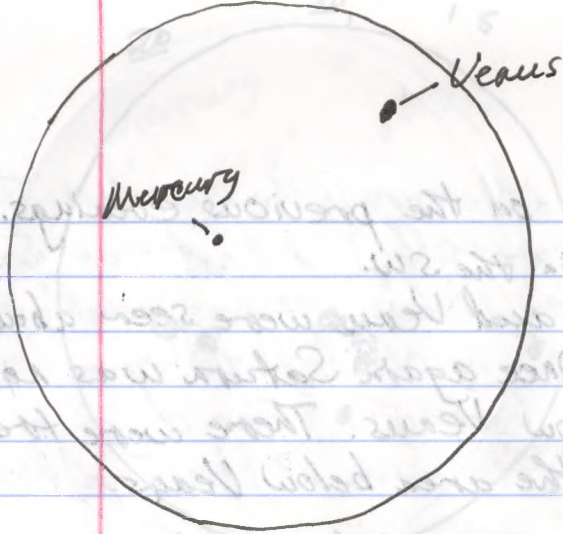
18X5015b: I checked for a chance of seeing Venus but did not see it.

W. July 6 16:20 - 16:25 UT t c-8, 32
sun 5g 57s RSN107 T.O.F.

W.-Th. July 6-7 01:05 - 01:55 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area twl ne; 18X5015b

ne: Hoping to see Venus, Mercury and Saturn I went to the MTO Picnic Area near Silver Lake. The weather was very good. At about 01:13 UT I spotted Venus in the binoculars and at about 01:15 UT I saw Mercury in the binoculars and at about 01:16 UT I saw Venus naked-eye. Later I also saw Jupiter naked-eye

18X5015b: As stated I saw Venus in the binoculars at about 01:13 UT and Mercury in the binoculars at about 01:15 UT. I searched for Saturn below Venus and Mercury, but was not sure

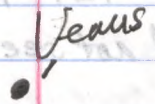


2005, July 7, 01:30 UT Venus and Mercury
as seen in the 18x50s binoculars - 1.8° apart.

59 24 27 4
60.5
RSN 110 July 7
15:20-15:25 UT

Very thin
crescent moon
(37h 14m old)

1.9°
apart
Mercury
seen in
binoculars



looked
for
Saturn
but
did not
see it



2005, July 8 01:20 UT View to WNW
Naked-eye view of Venus and Crescent Moon

at about 01:15 UT I saw Venus in the binoculars
at about 01:17 UT and Mercury in the binoculars
at about 01:20 UT. I searched for Saturn
also saw Jupiter naked-eye.
01:15 UT I saw Venus naked-eye. Later I
saw Mercury in the binoculars and at about
01:20 UT I saw Venus in the binoculars and
at about 01:20 UT I saw Venus in the binoculars
and Mercury in the binoculars. The
weather was very good. At about 01:30 UT I
was hoping to see Venus, Mercury and Saturn
in the MTO Park Area near Silver Lake. The

2005

Venus
✓ and
Mercury

of seeing it, though for an instant I thought that I might be seeing it. Venus and Mercury were about 1.8 degrees apart, that is, just about $\frac{1}{2}$ of the diameter of the field-of-view of the binoculars. (See diagram.)

ph: photographed the area of sky with Venus and Mercury - which were seen at about 01:20 at about 10 degrees above the WNW horizon.

03:15-04:00 UT y 58(2)T 9.5! ne; 18x50isb

ne: Summer Milky Way, stars of summer, δ Cephei - at or near maximum

18x50isb: M4, M11 and R Scuti, M16, M17, M18, M18, M20, M21, M22, M23, M24, M25, Barnard's Star, T Cor Bor.

Th. July 7 15:20-15:25 UT t
Sun 5g 60s RSN 110

C-8, 32
T.O.F.

Th.-F. July 7-8 01:00-02:00 UT MTO Picnic Area ^{out Hwy #7 beside Silver Lake} twl ne; 18x50isb
ne: After seeing Venus in the binoculars, I saw it naked-eye at about 01:15 UT. It was over 10° above the WNW horizon. At about 01:20 UT I saw the thin crescent moon naked-eye. (See diagram.) Later I also saw Jupiter naked-eye in the SW.

18x50isb: At about 01:13 UT I saw Venus in the binoculars. At about 01:16 I saw the thin crescent moon in the binoculars. At about 01:19 I saw Mercury in the binoculars. I looked carefully, but was unable to see Saturn below the crescent moon - at least, not with certainty. When I first saw the crescent moon it was about 37 hours 14 minutes old.

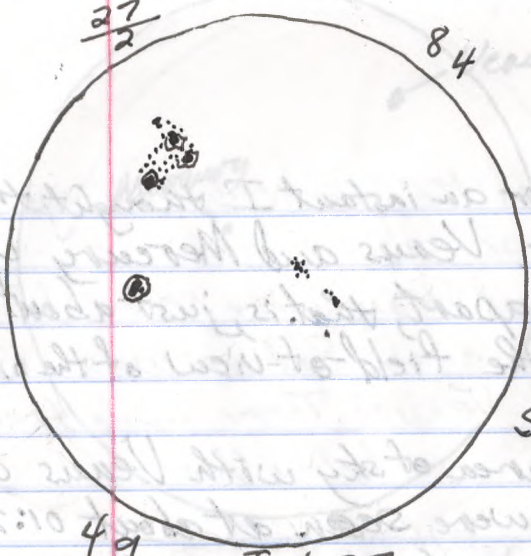
ph: photographed area of Venus and crescent moon.

Venus
✓ and
Mercury

Easy n.e.
Crescent
Moon 37^h 14^m old.

27/2

84

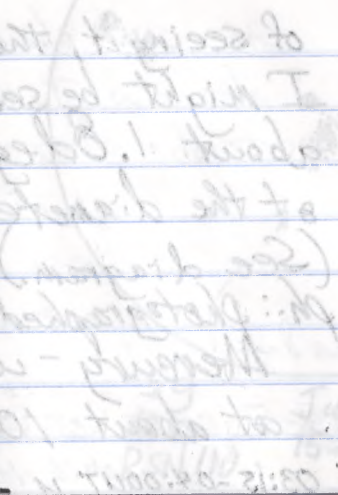


SC.

49
45
R5N

July 27
14:35-14:40 UT

27



Venus
Mercury
Early a.m.
Greatest
near 37° old.

about 3 hours 14 minutes old.
 When I first saw the crescent moon it was
 the crescent moon - at least not with certainty
 correctly, but was unable to see Saturn below
 01:19 I saw Mercury in the binoculars. I looked
 Crescent moon in the binoculars. At about
 the binoculars. At about 01:16 I saw the thin
 At about 01:13 UT I saw Venus in
 looked-eye in the SW.

After seeing Venus in the binoculars I searched
 10° above the horizon. At about 01:20 UT
 I saw the thin crescent moon with my eye. (See
 diagram) I looked-eye in the SW.
 At 01:20 UT I saw Venus in
 the binoculars. At about 01:16 I saw the thin
 Crescent moon in the binoculars. At about
 01:19 I saw Mercury in the binoculars. I looked
 correctly, but was unable to see Saturn below
 the crescent moon - at least not with certainty
 When I first saw the crescent moon it was
 about 3 hours 14 minutes old.

of seeing it through for an instant I
 I might be seeing it Venus and Mercury
 about 1.0 degrees apart that is just about 1/2
 of the diameter of the field of view of the
 (See diagram)
 Mr. photographed the area of sky with Venus and
 Mercury - which were seen at 01:50
 at about 10 degrees above the horizon
 03:12-04:00 UT

Venus
Mercury
Early a.m.
Greatest
near 37° old.

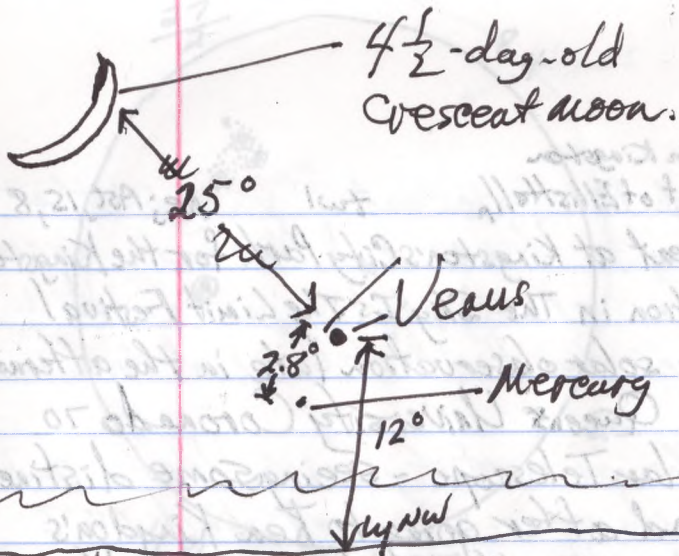
2005 Sa.-Su July 9-10 01:00-03:00 UT ^{in Kingston} roof of Ellis Hall, twl ne; Ast, 15, 8

ne: After a day spent at Kingston's City Park for the Kingston Centre participation in The Sky Is The Limit Festival (including some solar observation late in the afternoon, even with the Queen's University Coronado 70 Hydrogen & Solar Telescope - seeing some distinct prominences) and after going to Ken Kingdon's place for dinner, I observed with the Kingston Centre's public observing session on the roof of Ellis Hall. There were about 125 members of the public who came to the event. Centre members who participated in The Sky Is The Limit Festival included Ken Kingdon, Kevin Kell, Kim Hay, Susan Gagnon, Steve ^{Hart} ~~Stap~~, Hank Bartlett and Terry Bridges who brought the Coronado Solar Telescope. Members who came to the observing session included Ken Kingdon, Kevin Kell, Kim Hay, and Hank Bartlett. The objects easily seen were the crescent moon well above and to the left of Venus, Venus, Jupiter and some of the brightest stars of Summer. There was a passage of the International Space Station at about 02:58 UT

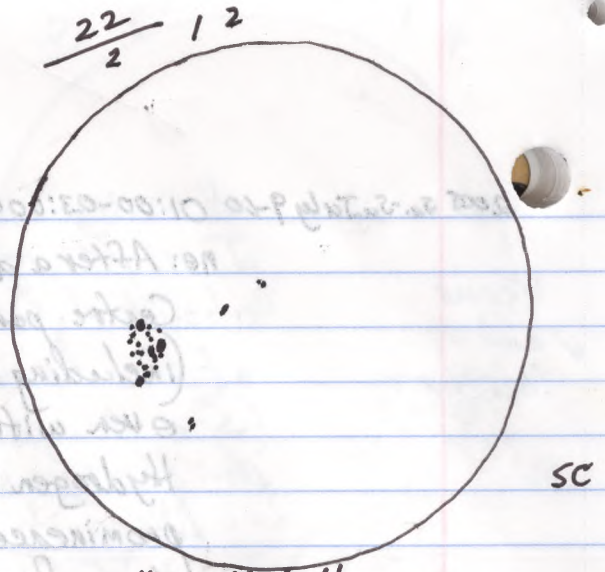
Ast: Lunar craters on the crescent moon, Venus, Jupiter and the 4 Galilean moons, Alcor and Mizar.

Sa. July 10 14:35-14:40 UT t C-8, 32
sun 4g 4s RSN 81 J.O.F.

S.-M. July 10-11 01:00-01:50 UT ^{on Hwy #7 beside Silver Lake} MTO Picnic Area, twl ne; 18XSD15b
ne: With quite good weather conditions I saw Venus up about 12° above the horizon at about 01:12 UT. From 01:00 UT, or before, the thin



2005, July 11 01:30 UT View to WNW



49 July 11
 275 19:00-19:05
 RSN67

to 5 1/2 day old
 ← Crescent moon Venus

- searched for
 Mercury in this area
 but NOT sure
 of seeing it.

some
 clouds

WNW

2005, July 12, 01:30 UT View
 to the WNW

2005

crescent moon had been available to view. At about 01:25 Jupiter was easily seen naked-eye, though it may very well have been visible well before that. (See diagram.)

Venus
and
Mercury

18X5015b: In the binoculars, Venus was visible at about 01:11 UT. Mercury was seen in the binoculars at about 01:17 UT. It was about 2.8° down and to the left from Venus. The lunar craters on the $4\frac{1}{2}$ day-old moon were quite beautiful.

ph: photographed the area of Venus and Mercury.

M. July 11 19:00-19:05 UT t
sun 4g 27s RSN67

C-8, 32
T.O.F.

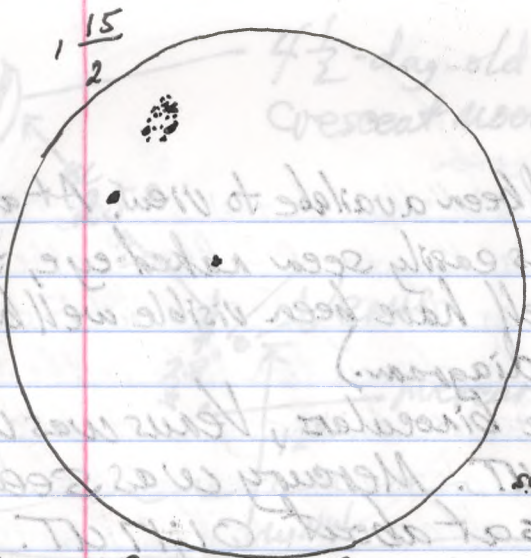
M.-T. July 12-13 01:05-01:50 UT ^{on Hwy #7 beside Silver Lake}
MTO Picnic Area ^{twl nr; 20x100b}

Venus,
but not
sure of
seeing Mercury.

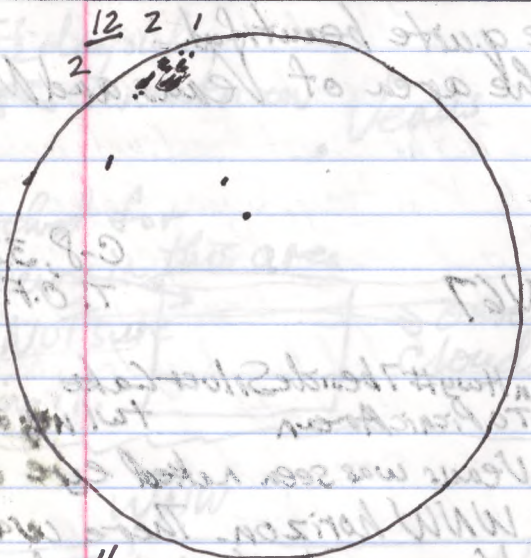
ne: At about 01:21 Venus was seen naked eye about 10° above the WNW horizon. There was some cloud below Venus and above the distant line of trees.

20X100b: Since I had forgotten to take the 18X50 15 binoculars with me, I used the 20X100 binoculars on the tripod after I had taken some photographs. Though I looked carefully I was not sure of seeing Mercury in the area below Venus. I may have waited too late to begin searching carefully and/or I may have had too many clouds in the area to see Mercury.

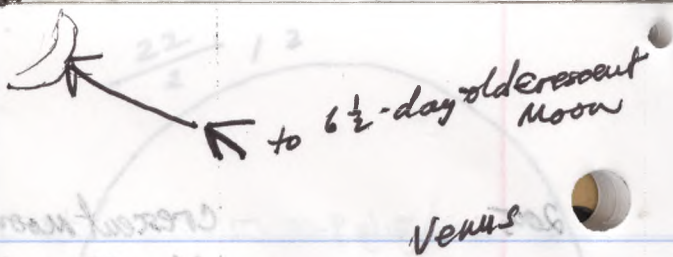
ph: photographed the area where Venus was seen, hoping that Mercury might be detected photographically.



9
5
July 12
14:25-14:40 UT



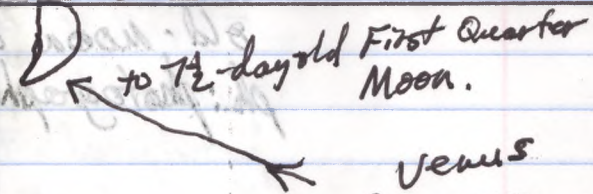
4
9
17
5
RSN 57
July 13
13:40-13:45 UT



Clouds
(Mercury NOT SEEN)

WNW

2005, July 13 01:30 UT View to WNW
showing Venus about 10° above horizon.



area of clouds
(Mercury NOT SEEN)

WNW

2005, July 14, 01:30 UT View to WNW
showing Venus about 10° above horizon

2005 Tu. July 12 14:35-14:40 UT t

sun 3g 18s RSN 48

C-8, 32
T.O.F.

T-W. July 12-13 01:00-01:40 UT on Hwy #7 beside Silver Lake 15b
MTOPicnic Area, twl ne; 18X50

ne: On an evening following a very hot day, I hoped to see both Venus and Mercury. The 6 1/2-day-old Crescent Moon dominated the SW sky. Jupiter appeared about 10° to the left of the Moon. At 01:28 UT Venus was seen naked-eye, amid the hazy conditions in the NW.

Venus
seen,
but not
Mercury.

18X50 15b: In the binoculars Venus had been seen at 01:06 UT. The Crescent Moon and Jupiter were also seen. Fairly heavy clouds were in the area below Venus. Though I searched carefully, I did not see Mercury.

ph: photographed the area of Venus in the WNW sky, hoping that Mercury might appear in a photograph.

W. July 13 13:40-13:45 UT t

sun 4g 19s RSN 57

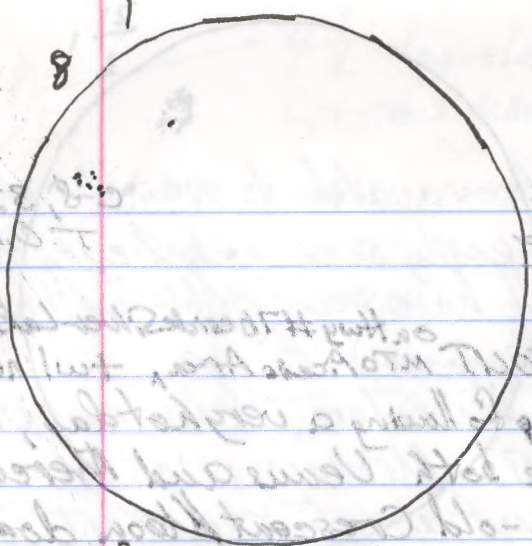
C-8, 32
T.O.F.

W-Th. July 13-14 01:00-01:35 UT on Hwy #7 beside Silver Lake
MTOPicnic Area, twl ne; 20X100b

ne: On another evening following a very hot day, I hoped to see Venus and Mercury. At about 01:18 UT I saw Venus naked-eye about 10° above the WNW horizon. The First Quarter Moon with Jupiter about 5° to its right dominated the SW sky.

Venus seen,
but NOT
Mercury.

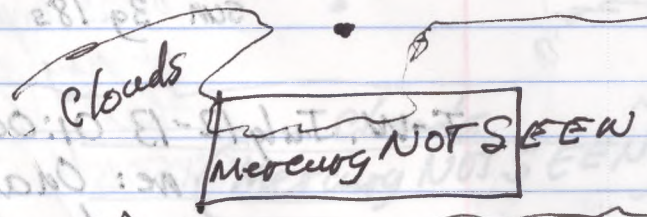
20X100b: With the large binoculars on the tripod I scanned the area below Venus, but did not see Mercury. I observed the craters on the



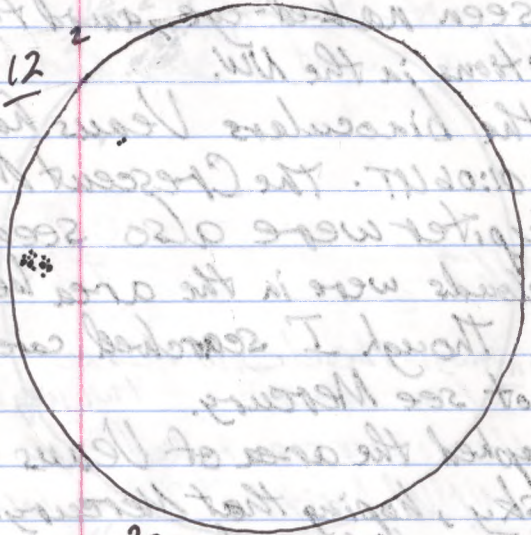
29 July 14
 95 RSN29 15:55-16:00UT

to First Quarter Moon and Jupiter about 180 to its right

Venus

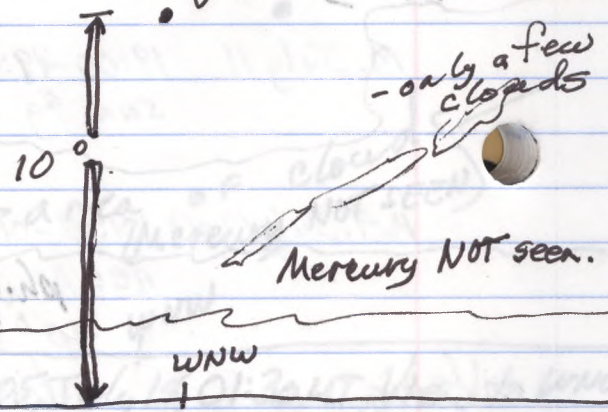


2005, July 15, 01:30 UT View to
 WNW



29 July 15
 145 RSN34 16:55-17:00UT

Venus



2005 July 16 01:20 UT View to WNW
 with Venus about 10° above the horizon

2005

July 16 First Quarter Moon.

ph: I photographed the First Quarter Moon, and the area of Venus

Th. July 14 15:58-16:00 UT t

C-8, 32

Sun 29 9s RSN29

T.O.F.

on Hwy #7 near Silver Lake

Th.-F. July 14-15 01:05-01:40 UT MTO Picnic Area n twl ne; 18x50isb

ne: Venus was easily seen among a few clouds in the WNW at about 01:12 UT. In the SW sky the First Quarter Moon dominated with Jupiter about 18° to its right.

18x50isb: Venus was seen at about 01:10 UT. Though I searched carefully in the area below Venus, I did not see Mercury. In the area below Venus there were a few clouds, but some of the area also appeared clear

ph: photographed the area of the sky around Venus.

F. July 15 16:55-17:00 UT t

C-8, 32

Sun 29 14s RSN34

T.O.F.

on Hwy #7 near Silver Lake

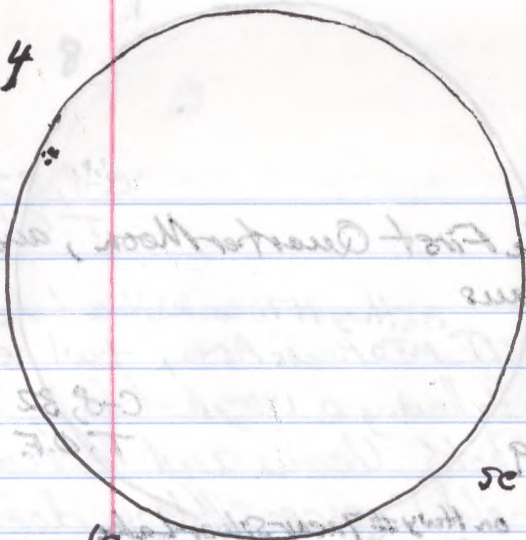
F.-S. July 15-16 01:00-01:40 UT MTO Picnic Area n twl ne; 18x50isb.

ne: With very few clouds in the NW sky I saw Venus up about 10° above the WNW horizon at about 01:13 UT. The waxing gibbous moon, after First Quarter by over a day, and Jupiter were in the SW sky.

18x50isb: Venus was seen in the binoculars at about 01:05 UT. In the area below Venus I searched carefully for Mercury, but did not see it.

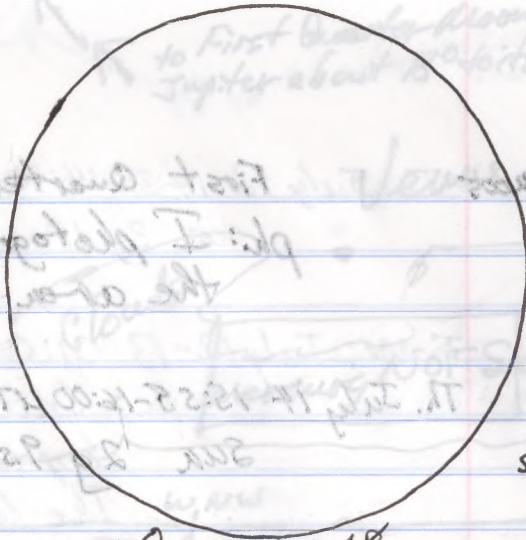
ph.: photographed area of Venus and the area below it in the WNW sky.

4



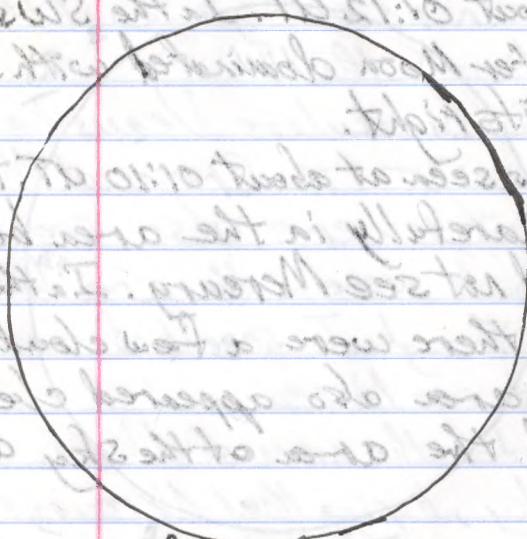
19
45
RSNO July 16
15:00-15:05 UT

sc



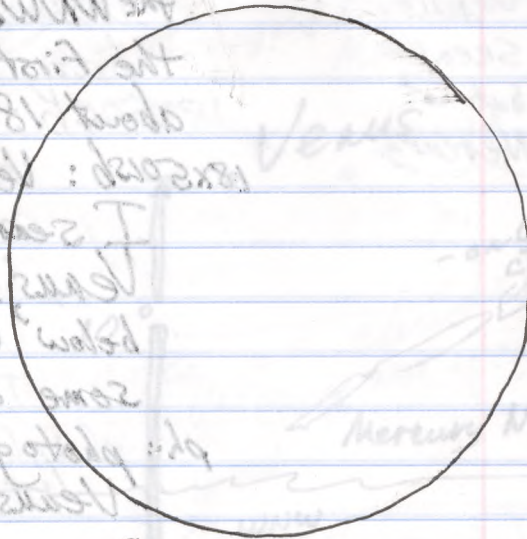
09
05
RSNO July 18
19:20-19:25 UT

sc



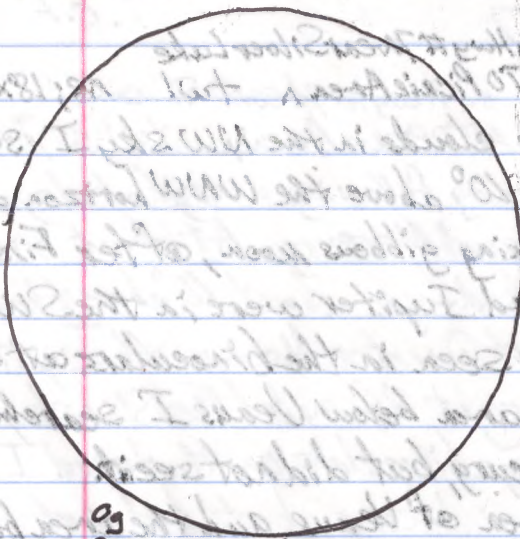
09
05
RSNO July 19
16:00-16:05 UT

sc



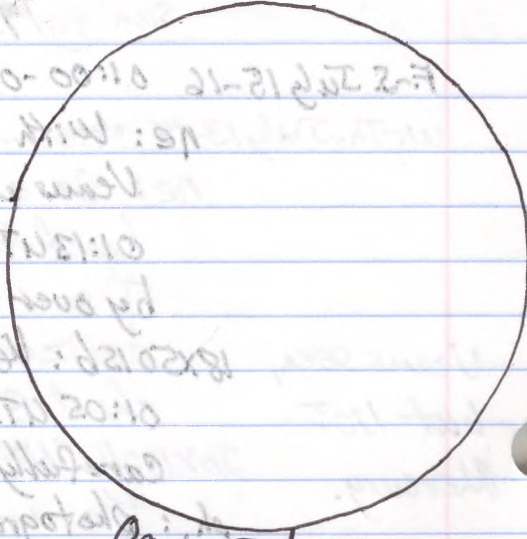
09
05
RSNO July 20
14:55-15:00 UT

sc



09
05
RSNO July 21
15:40-15:45 UT

sc



09
05
RSNO July 22
16:10-16:15 UT

sc

2005 Sa. July 16 15:00-15:05 UT t
Sun 1g 4s RSN 14

C-8, 32
T.O.F.

M. July 18 19:20-19:25 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

Tu. July 19 16:00-16:05 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

W. July 20 14:55-15:00 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

Th. July 21 15:40-15:45 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

F. July 22 16:10-16:15 UT t
Sun 0g 0s RSN 0

C-8, 32
T.O.F.

Sa. July 23 16:20-16:25 UT
Sun 1g 10s RSN 20

C-8, 32
T.O.F.

Sun. July 24 14:30-14:35 UT t
Sun 1g 4s RSN 14

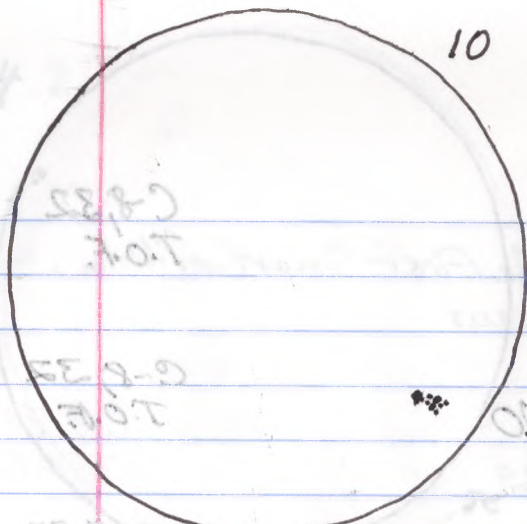
C-8, 32
T.O.F.

M. July 25 16:00-16:05 UT t
Sun 1g 10s RSN 20

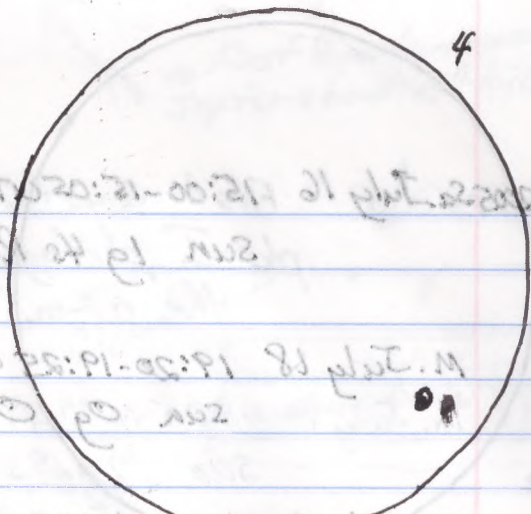
C-8, 32
T.O.F.

M.-T. July 25-26 03:15-03:55 UT y SBC(J)TP-25ⁿ ne; 18x50s6
(increasing m/cloud)

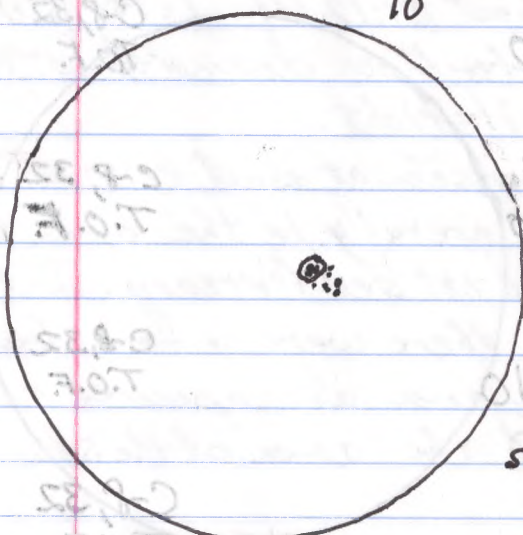
ne: stars of summer; Summer Milky Way. Because of increasing moonlight as the moon rose, and because of increasing cloud in the E. and in the S, the transparency decreased considerably in the latter part of the session.



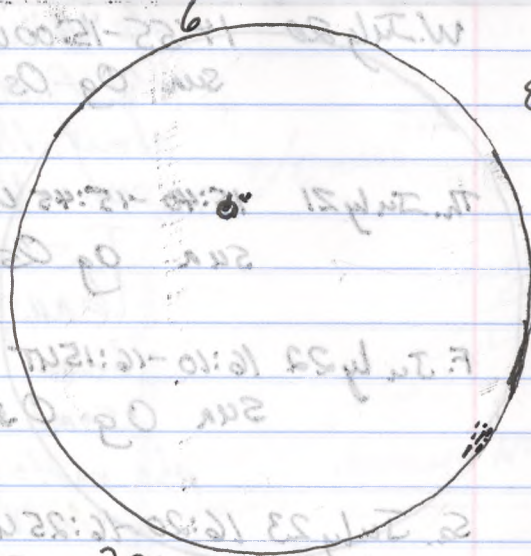
1g July 23
10s 16:20-16:25 UT
RSN20



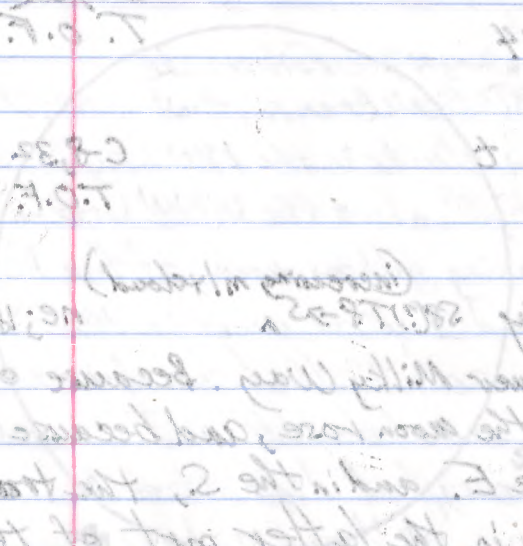
1g July 24
f5 14:30-14:35 UT
RSN14



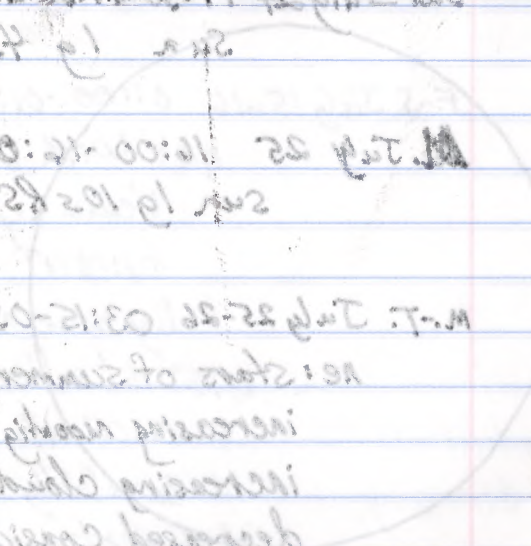
1g July 25
10s 16:00-16:05 UT
RSN20



2g July 28
14s 15:35-15:40 UT
RSN34



1g July 21
10s 15:40-15:45 UT
RSN20



1g July 22
10s 16:10-16:15 UT
RSN20

(increasing with time)
no; RSN20
no: stars of summer, summer Milky Way, because of
increasing visibility as the moon rose, and because of
increasing cloud in the E. and in the S, the transparency
decreased considerably in the latter part of the
session.
16:10-16:15 UT
RSN20

2005

18x5015b: M11 and area, M16, M17, M18, M23, M24, M25, M28, M22, M8, M20, M21, α Her and area, α Oph and area, Barnard's Star and area

ne: Variable Star Estimates: β Lyrae 4.3; δ Cephei: 3.9

W.-Th. July 27-28 03:25-04:25 UT y S-8T9(!) ne; 18x5015b

ne: stars of summer; 3 meteors, one of which was probably a Perseid; Auroral glow in the N., with vertical spikes up about 25° to 30°

Aurora

18x5015b: M11 and area, M16, M17, M18, M20, M21, M22, M28, M23, M24, M25, area of M57, M13, M92, area of α Capricorni, IC466, Barnard's Star, R Cor Bor, T Cor Bor, M10, M12, Kemble 2 in Draco.

Th. July 28 15:35-15:40 UT t

sun 2g 14s RSN34

C-8, 32
T.O.F.

Th.-F. July 28-29 03:15-04:25 UT y S8(?)T9.5(!) ne; 18x5015b

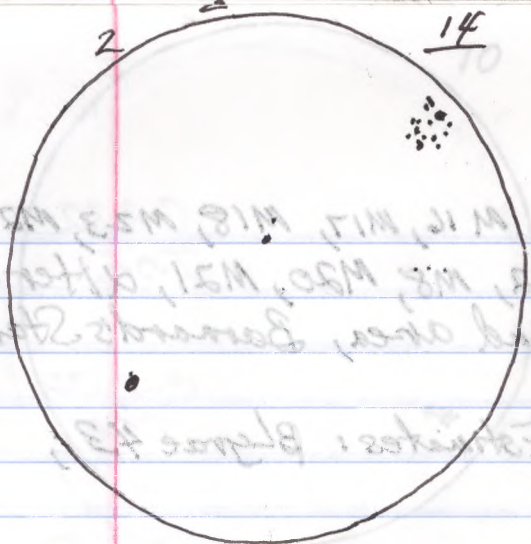
ne: stars of summer, a glow in the N. that may have been auroral

ne. estimates of variable stars: δ Cephei: 3.4;

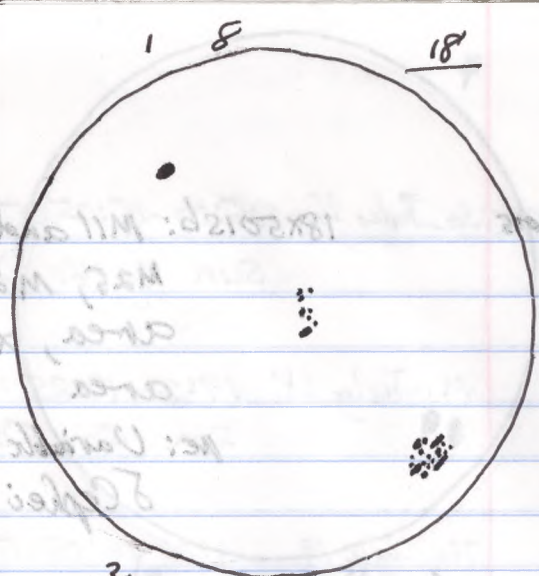
β Lyrae: 3.3

18x5015b: M11 and area, M8, M20, M21, M22, M28, M16, M17, M18, M23, M24, M25, Barnard's Star and area, IC466, M13, M92, μ Cep and area, Kemble's Cascade, Kemble 2, T Cor Bor and area, R Cor Bor and area, M5, M15, M14, M10, M12, Neptune in Capricornus

Neptune



3g
185
RSN 48
July 29
21:30-21:35 UT



3g
275
RSN 57
July 30
15:35-15:40 UT

(Faint, mostly illegible handwritten notes and bleed-through from the reverse side of the page.)

2005 F. July 29, 21:30-21:35 UT t
Sun 3g 18s RSN 48

C-8, 32
T.O.F.

F.-S. July 29-30 03:15-04:20 UT y SPT 9-9.5 (!) ne; 18x50 ISB
ne: stars of summer; M3 in Andromeda; perhaps a
glow in the N. which may have been auroral;
a couple of meteors or more that may have
been Perseids.

18x50 ISB: M1 and RScut1, M16, M17, M18, M8, M20,
M21, M22, M23, M24, M25, M27, M28, M71
M5, M15, M13, M92, M31, M32, M33, M110,
Double Cluster in Perseus and nearby
"Muscleman" Cluster, Kemble's Cascade,
Kemble 2, Neptune in Capricornus (cf.
map in O.H. 2005, page 196), R Cor Bor
and T Cor Bor and areas nearby; Barnard's
Star and area nearby; Neptune in Capricornus
- very near a star of very similar mag.
(See map in O.H. 2005, page 196); several
clusters E. of α Her and α Oph - namely
NGC 6633 and IC 4756 (See U 205.) which
are almost in a line from α Her to α Oph to
the star 72 Oph and continuing on to these
two clusters; μ Cep and area.

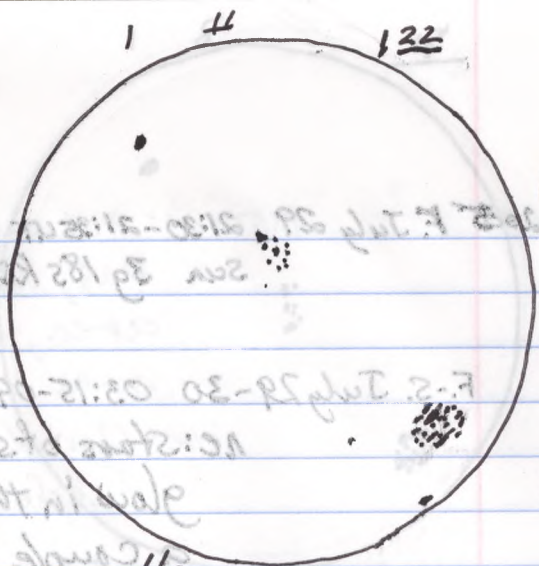
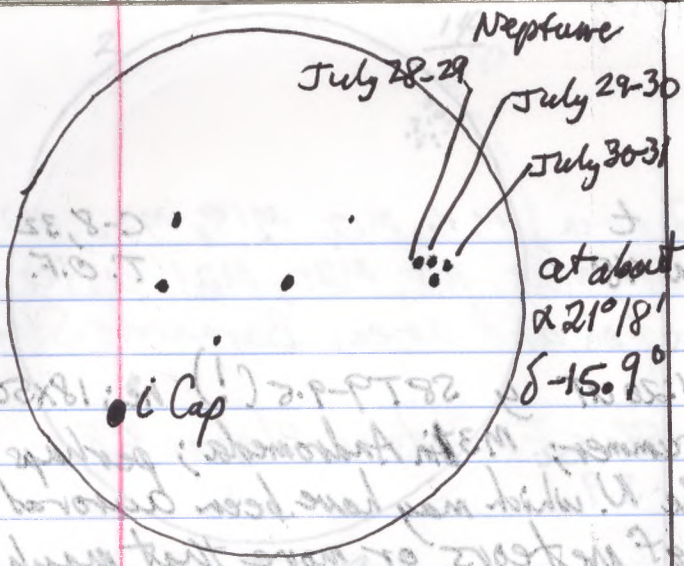
Neptune

ne variable estimates: β Per β Lyrae: 3.3;
 δ Cephei: 3.5

Sa. July 30 15:35-15:40 UT t
Sun 3g 27s RSN 57

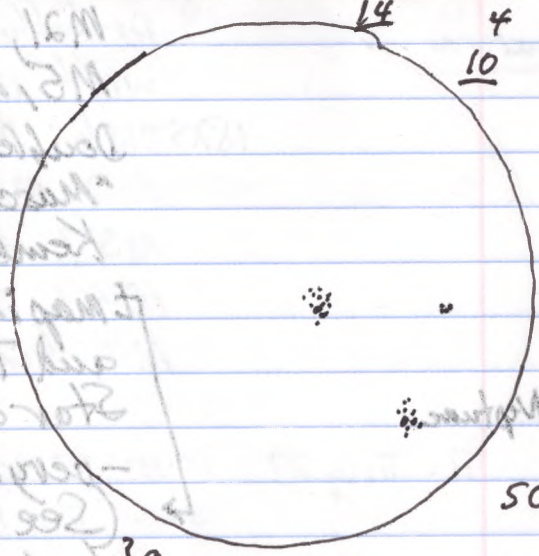
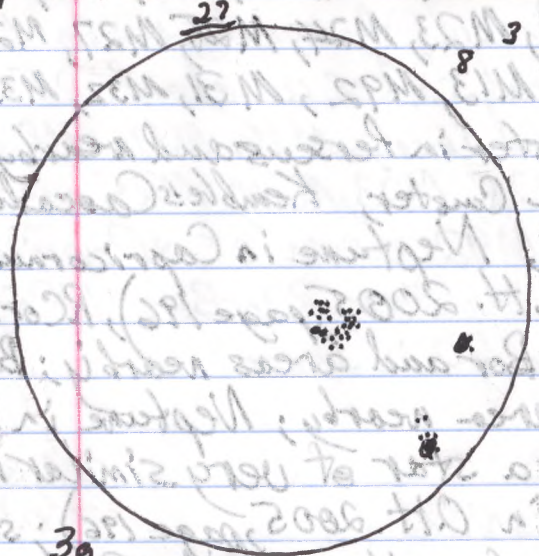
C-8, 32
T.O.F.

Sa.-Su. July 30-31 04:15-04:45 UT y SPT 9-9.5 (!) ne; 18x50 ISB
ne: stars of summer; one bright meteor seen
naked-eye



2005, July 31, 04:15 UT - Binocular view of Neptune, as seen on 3 consecutive dates

49 355 July 31
RSN 75 15:00-15:05 UT



39 385 Aug. 2.
RSN 68 16:10-16:15 UT

39 285 Aug. 3
RSN 58 15:40-15:45 UT

no stars of summer; one bright meteor seen
July 30 04:12-04:15 UT
285 RSN 58

2005

18X5015b: Neptune in Capricornus (See diagram.)
(See also U 300.) - also M 22, M 16, M 17,
M 18, M 24, M 25, Col 299.

Su. July 31 15:00 - 15:05 UT t C-8, 32
sun 4g 35s RSN 75 T.O.F.

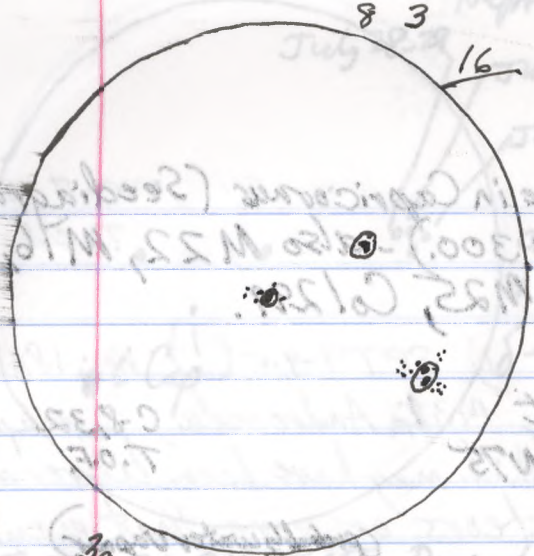
M.-T. Aug. 1-2 04:40 - 05:00 UT nd + y 57-8 T 7 n ne
(probably water vapour)
- stars of summer; 2 meteors which were probably
Perseids.

Tu. Aug. 2 16:10 - 16:15 UT t C-8, 32
sun 3g 38s RSN 68 T.O.F.

Ti.-W. Aug. 2-3 02:00 - 04:45 UT 00 58 T 9 (!) ne; 20x100b; C-14, 19
ne: stars of summer under excellent conditions - with
occasional flashes of "heat lightning"; two
bright Perseid meteors.

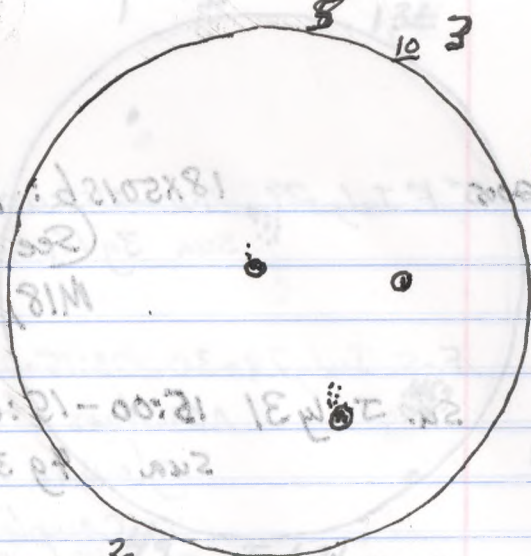
20x100b: M 20, M 28, M 8, M 22, M 21, M 23, M 24, M 25, M 16,
M 17, M 18, Neptune in Capricornus,
M 15, M 10, M 12, Barnard's Star, and area
including IC 4665, Y Ophiuchi and
the area of RS Ophiuchi, as shown on
U 294, though nothing was seen for
sure at the location given for RS Ophiuchi.
(This star is a recurrent nova. See
Buraham, page 1240.) - also T Cor Bor,
R Cor Bor, Alcor and Mizar
C-14, 19: β Cygni, M 13, M 92.

W. Aug. 3 15:40 - 15:45 UT t C-8, 32
sun 3g 28s RSN 58 T.O.F.



39
275
RSN 57

Aug. 4
19:40-19:45 UT



39
185
RSN 48

Aug. 5
15:25-15:30 UT

50

T.O.F.
C.S. 32

see 3d 38 RSN 68

50

T.O.F.
C.S. 32

see 3d 38 RSN 68

W. Aug. 3 12:10-12:15 UT

2005 W-Th. Aug. 3-4 03:25-04:25 UT y S8T7 (lower altitude) (haze, esp. at N) ne

- stars of summer; 3 meteors: one definitely a Perseid, one possibly a bright Perseid, and one definitely not a Perseid, but an exploding and very brilliant one up about 25° above the SE horizon and probably brighter than mag. -6. It appeared to travel only about 1° or 2° after exploding. The rather poor transparency seemed to improve near the end of the session.

-6 mag. meteor!

Th. Aug. 4 19:40-19:45 UT t C-8, 32
Sun 3g 275 RSN 57 T.O.F.

F. Aug. 5 15:25-15:30 UT t C-8, 32
Sun 3g 185 RSN 48 T.O.F.

F-S. Aug. 5-6 0:30-05:10 UT 00 S8 (UT 9-9.5!) ne; 20x100b; C-8, 19
ne: On a night of excellent transparency I had a good observing session with 4 guests, namely Mr. Tim Smith and his 3 children. I pointed out the constellations for them and the stars of summer. They saw a number of Perseid meteors and I saw one that was very nice. In the yard in the last 10 minutes of the session, I saw Mars very bright in the E. and a bright glow in the N. that was almost certainly auroral.

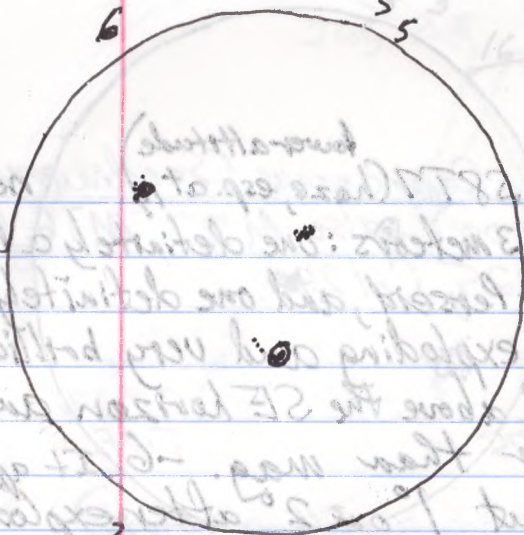
Neptune

20x100b: I pointed out for the guests M22, M16, M77, M24, M25, M11, M8 and the planet Neptune in the constellation Capricornus. (*)

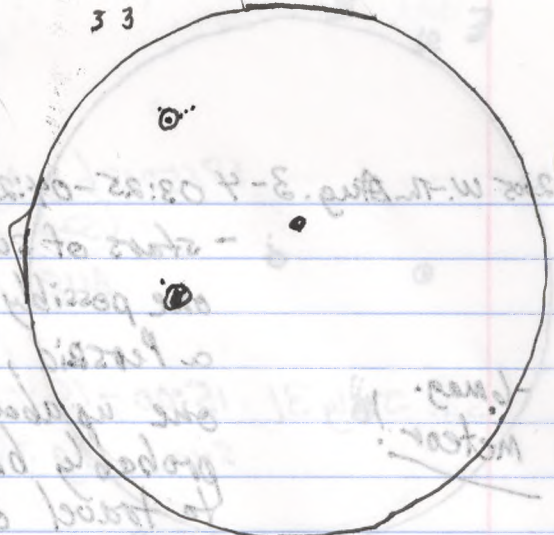
C-14, 19: M13 (1), other which was split very beautifully, and M57 which was superb, and β Cygni.

Uranus

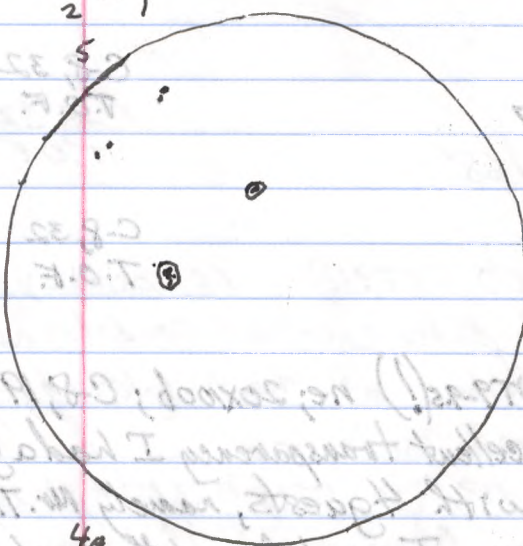
(*) After the guests had left, I observed Uranus near the star 2 Aquarii.



39
165
RSN46
Aug 6
15:50-15:55 UT



39
115
RSN41
Aug. 7
14:20-14:25 UT



49
105
RSN50
Aug. 8.
15:30-15:35 UT

near the star 2 Avaric.
(* After the guest had left, I observed Uraus
and 8 Cyprius.
beautifully, and M27 which was superb
C-14, 19: M3 (1) other which was split very
is the constellation Capricornus. (*)
M2, M22, M11, M8 and the planet Neptune
I pointed out for the guests M23, M16, M17,
certainly unusual.
E. and a bright glow in the N. that was almost
of the region, I saw Mars very bright in the
very nice. In the pond in the last 10 minutes
number of bright meteors and I saw one that was
for them and the stars. The same
and his 3 children. I pointed out the constellation
observing session with guests, mainly Mr. Tim Smith
Mr. on a night of excellent transparency I had a good
7:2 Aug 2-2 0:30-0:40 UT 25 SC
7 Aug 2 12:32-12:30 UT 5
7 Aug 4 19:40-19:42 UT 5

Sun. 2005 Aug. 6 15:50-15:55 UT t
Sun 3g 165 RSN 46

C-8, 32
T.O.F.

Perseids
Sa-Sun Aug. 6-7 02:30-05:15 UT 00 SRT 9.5(?) ne; 20x100b
ne: stars of summer; a good number of Perseid
meteors and one fairly bright non-Perseid meteor,
with one Perseid being mag. -6 or brig later; Mars
also seen from the yard at the end of the
session.

20x100b: Uranus near λ Aquarii, Neptune near
 ι Capricorni, M11 and R Scuti, Barnard's Star
and area, and IC 4665 in Ophiuchus,
T Cor Bor and R Cor Bor, M31, M32, M110,
M33, Double Cluster and Stock 2 in Perseus,
Kemble's Cascade in Camelopardalis and Kemble 2
in Draco.

ph: photographed areas of the summer sky - guided

Sun. Aug. 7 14:20-14:25 UT t
Sun 3g 115 RSN 44

C-8, 32
T.O.F.

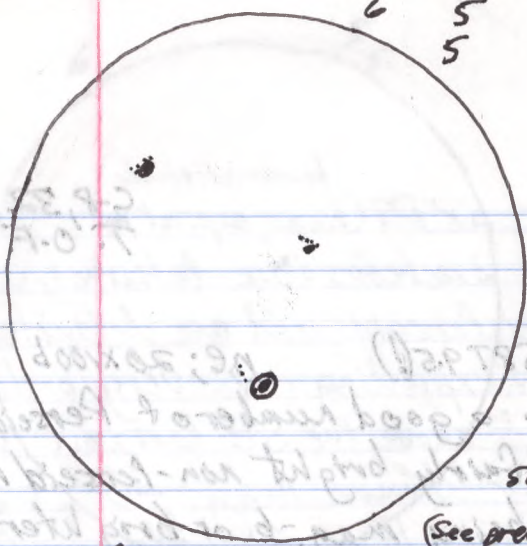
S-M. Aug. 7-8 02:00-03:25 UT y 58(?) T 7-8 ^(perhaps water vapour or slight haze) ne; 18x50ISb
ne: stars of summer; several meteors, including one
nice Perseid meteor

18x50ISb: M4, M6, M7, M22, M11, M16, M17, M18, M8, M20,
M21, M23, M24, M25, M2, M15, M14, IC 4665,
Barnard's Star and area

ph: photographed several areas of the sky using
the tripod and unguided photography,
hoping to photograph a Perseid meteor.

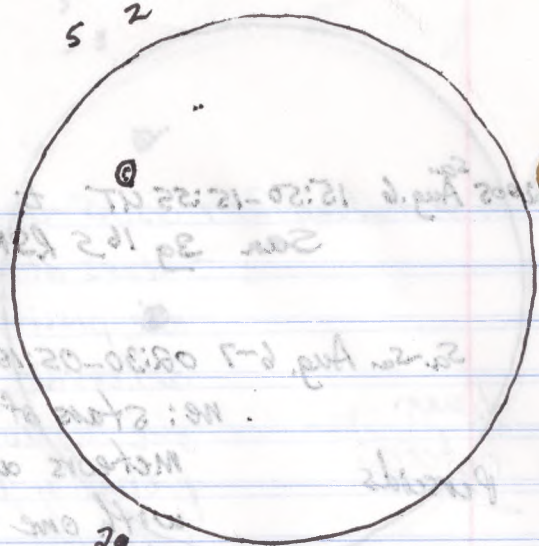
M. Aug. 8 15:30-15:35 UT t
Sun 4g 105 RSN 50

C-8, 32
T.O.F.

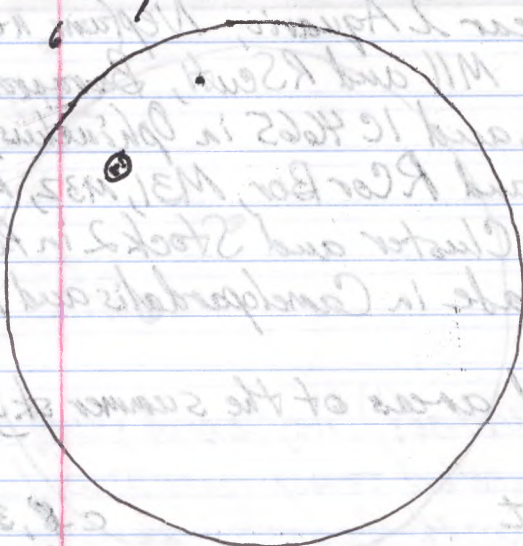


39
165
RSN46
Aug. 6
15:50-15:55 UT

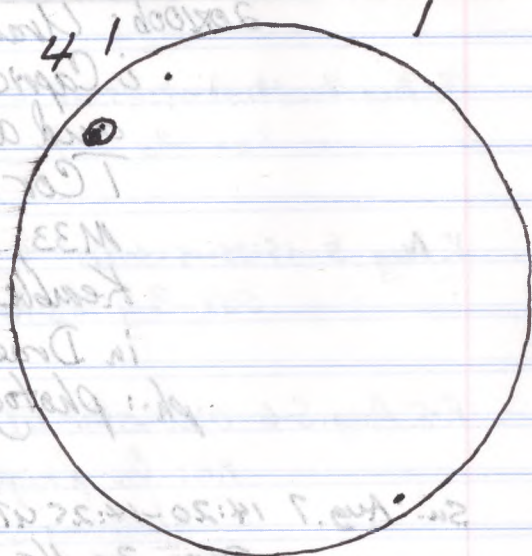
(See previous page)



29
75
RSN27
Aug 9
15:25-15:30 UT



29
75
RSN27
Aug. 10
15:50-15:55 UT



39
65
RSN36
Aug. 11
15:05-15:10 UT

2005. M.-T. Aug. 8-9 01:55-05:55 UT 00 S 8 (P) T 9.5 (!) ne; 20x100b

several Perseid
meteors.

ne: stars of summer; about 6 Perseid meteors with
a couple of them being very bright (and possibly
one of about mag. -5.5 being in a photograph I was
taking of part of the constellation Delphinus);
the planet Mars in the constellation Aries in the
ESE near the end of the session.

20x100 b: M11 and R Scuti area, Barnard's Star
and area, Teor Bor and R Car Bor, M10,
M12, Uranus and area, Neptune and
area, M31, M32, M110, M33, Kemble's Cascade,
Kemble 2, Mars.

ph: photographed various objects using the 200mm
f/2.8 lens guided on the C-14 telescope - including
the areas of the planets, Uranus and Neptune.

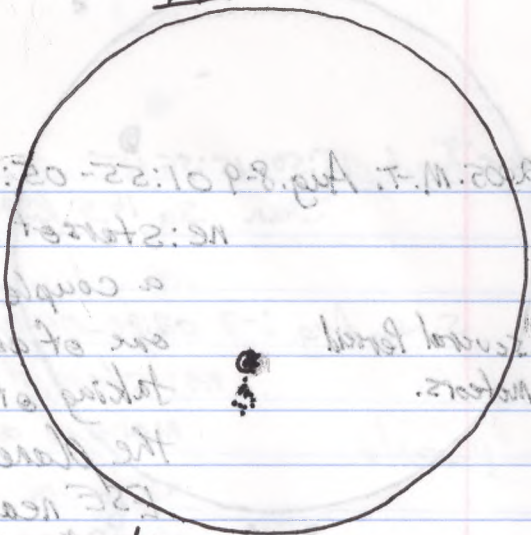
Tu Aug. 9 15:25-15:30 UT t C-8, 32
Sun 2g 7s RSN 27 T.O.F.

W. Aug. 10 15:50-15:55 UT t C-8, 32
Sun 2g 7s RSN 27 T.O.F.

Th. Aug. 11 15:05-15:10 UT t C-8, 32, 28, 20, 15.5
Sun 3g 6s RSN 36

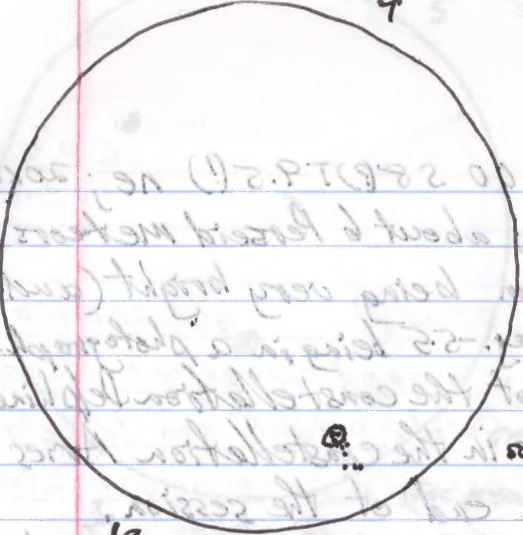
Th.-F. Aug. 11-12 03:40-03:50 UT - Ottawa's Blackburn Hamlet, S/T 3 ne
at Peter's place
- After returning from the CFL football game at Carleton Place
Park (Ottawa Renegades 22 - Saskatchewan Roughriders 17),
Peter and I observed for 10 minutes or so in
his backyard on the deck, hoping to see one or more
Perseid meteors, but we did not see any. The
sky conditions were poor. There were some clouds
some heavy and some light ones. We could see only about
two or three stars. We observed for only a short while.

14



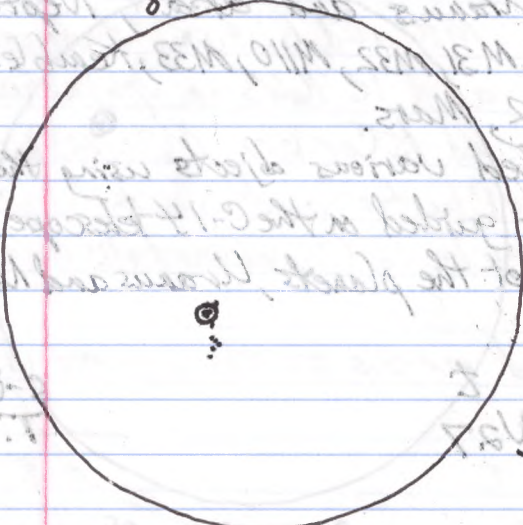
19
145
RSN24 Aug. 15
14:35-14:40UT

9

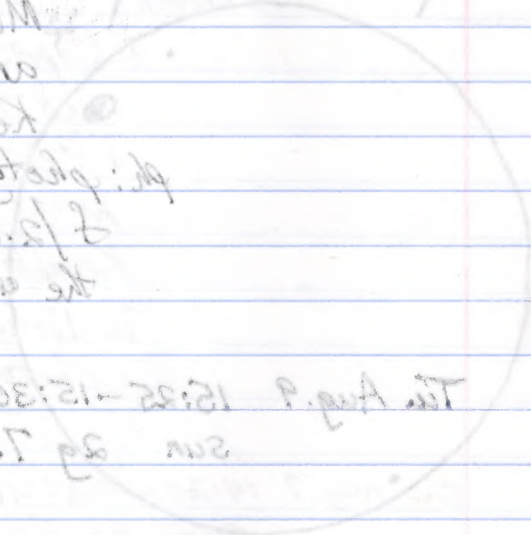


19
95
RSN19 Aug. 13
15:20-15:25UT

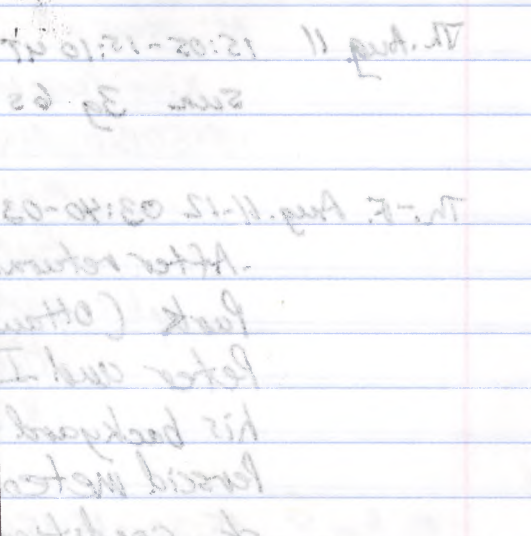
8



19
85
RSN18 Aug. 16
15:40-15:45UT



19
145
RSN24 Aug. 15
14:35-14:40UT



19
145
RSN24 Aug. 15
14:35-14:40UT

two or three stars. We observed for only about 15 min.
sky conditions were poor. There were some clouds
pervaded meters, but we did not see any. The
his backpack on the deck, hoping to see one or more
Peter and I observed for 10 minutes or so in
Park (Ottawa Park) 22-23-24-25-26-27-28-29-30-31
-After returning from the CFC football game at Carleton
Tr. F. Aug. 11-12 03:40-03:50 UT - Ottawa's Blenheim Park 27-28 NS
at Peter's place
CFC 25-26-27-28-29-30-31

2005 F.-S. Aug. 12-13 04:30-05:05 UT y S8(?)T5-2 ne

- Hoping to see some Perseid meteors, I observed under skies that at first were partially clear but became increasingly cloudy. I saw one bright Perseid of about mag. -4 and possibly another one not so bright amid the clouds.

Sa. Aug. 13 15:20-15:25 UT t C-8,32

Sun 199s RSN19 T.O.F.

Sa.-Su. Aug 13-14 03:45-04:20 UT nd S8(?)T6-1 (varied) ne

- observed for a while hoping to see some Perseids, but the sky varied from partly cloudy to almost totally overcast and it changed rapidly. Among the clouds, I saw two meteors, but was not sure that they were Perseids because they did not seem to be coming from the direction of Perseus. Overall, it was not a good sky for observing.

M. Aug. 15 14:35-14:40 UT t C-8,32 ne

Sun 1g 145 RSN24 T.O.F.

M.-Ti. Aug. 15-16 03:30-04:30 UT y and nd S8(?)T7 (gm) ne

- With a bright gibbous moon in the SW sky, I observed the very clear, cloudless sky, seeing the bright stars of summer and one bright meteor in the N.

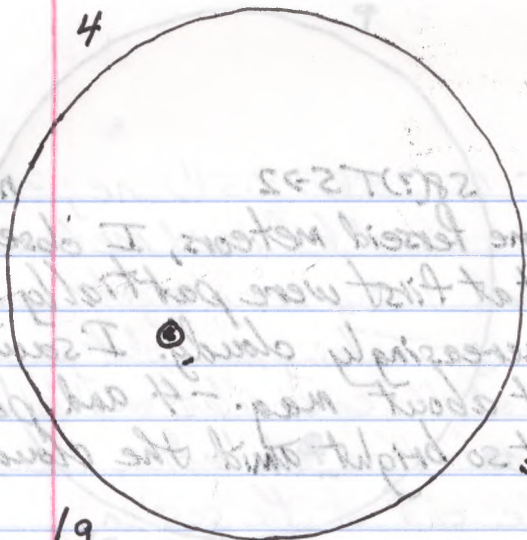
Tu Aug. 16 15:40-15:45 UT t C-8,32

Sun 1g 8s RSN18 T.O.F.

Tu. Aug. 16 16:05-16:10 UT nd PST, 20

Sun - no prominences seen; spent time focussing.

4



19

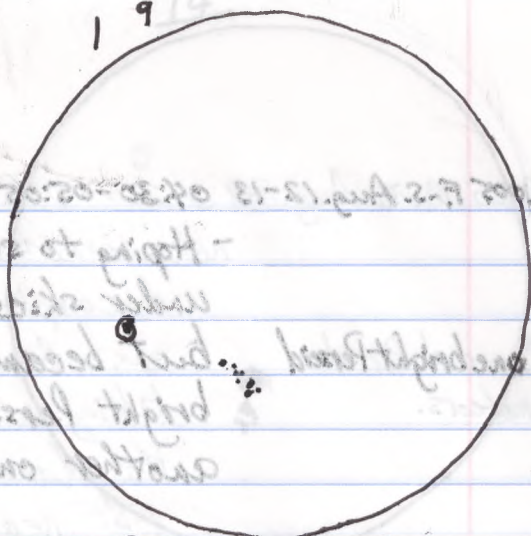
45

RSN14

Aug. 17

16:10-16:15 UT

1



29

105

RSN30

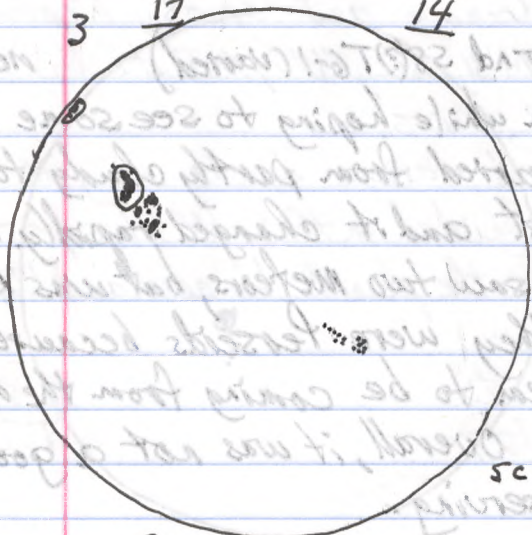
Aug. 18

16:15-16:20 UT

3

17

14



39

345

RSN64

Aug. 21

14:30-14:35 UT

M-T Aug. 12-16 03:30-04:00 UT (GMT) - With a bright gibbous moon in the SW sky, I observed the very clear, cloudless sky, seeing the bright stars of summer and one bright meteor in the N.

08:35

107

RST30

Tue Aug. 16 12:40-12:45 UT
Sun 19:25 RSN18

Tue Aug. 16 16:05-16:10 UT

Sun - no promises seen; spent time focusing.

2005 W. Aug. 17 16:10-16:15 UT t C-8, 32, 28, 20, 19, 15.5
Sun 1g 4s RSN14 T.O.F.

T.-w. Aug. 16-17 01:30-03:30 UT Muslim Camp ^{at Long Bay on Bob's Lake} 58(?) T6(gml) ne; Ast, 15
ne: I had been invited to give an astronomy presentation and observing session at the Muslim camp. Before my slide presentation I showed Murray Hogben and another councillor Jupiter and Venus which were very bright in the W. sky and about 18° apart. After the slide presentation, I showed the Summer Triangle and some nearby stars. The gibbous moonlight was quite bright.
Ast, 15: I also showed lunar craters which appeared crisp and clear, and the beautiful double star, Beta Cygni.

W. Aug. 17 16:30-16:35 UT nd PST, 20, 19
Sun - no prominences seen; used the 19mm Televue eyepiece for a good view also.

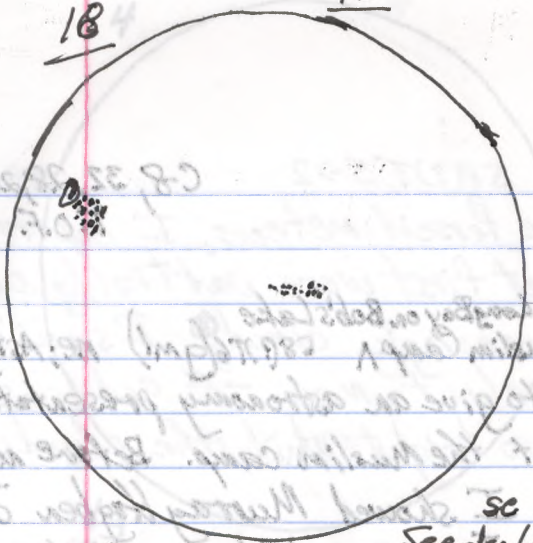
W.-Th. Aug. 17-18 02:35-03:25 UT y 5(?) T6-3(gml; cirrus cloud) ne
-observed the brightest of the stars of the summer sky in some parts of the sky, but cirrus cloud, and also some heavier clouds in the latter part of the session, made observing difficult. There were a couple of flashes that may have been meteors.

Th. Aug. 18 16:15-16:20 UT t C-8, 32
Sun 2g 10s RSN30 T.O.F.

Sun Aug. 21 14:30-14:35 UT t C-8, 32
Sun 3g 34s RSN64 T.O.F.

18

16



29
345
RSN54

Aug. 22
16:05-16:10 UT

See also Log #25.

After the slide presentation I showed the
Summer Triangle and some nearby stars. The
diphuse nebulosity was quite bright.

Aug. 12: I also showed some craters which
appeared crisp and clear and the beautiful
double star, Beta Cygni.

16:30-17:00 UT

W. Aug. 17 16:30-16:37 UT
2M - no prominences seen; used the 12cm telescope
specimens for a good view also.

W. Aug. 17-18 02:32-03:32 AT 2.5" (only circumscled) MC

observed the brightest of the stars of the summer
sky in some parts of the sky but circumscled
out also some heavier clouds in the latter part
of the session, made observing difficult.
There were couple of flares that may have
been detected.

0835
T.O.F.

16:15-16:30 UT
2M 3d 102 RSN30

0835
T.O.F.

2M Aug 21 14:30-14:37 UT
2M 3d 342 RSN104

Relative Sunspot Numbers

Date	My Observation		
2005			
2322 - Apr. 9	14	June 14	48
10	13	20	42
11	14	21	44
12	12	22	23
13	25	2360 - 23	0
14	38	24	0
15	38	25	0
18	25	26	0
21	11	27	0
2330 - 29	49	28	11
May 1	45	30	79
5	56	July 6	107
6	42	7	110
7	20	10	81
8	40	11	67
9	58	12	48
10	73	13	57
12	79	14	29
2340 - 15	48	15	34
19	15	16	14
20	0	18	0
21	0	19	0
25	32	20	0
26	26	21	0
27	30	22	0
28	35	2380 - 23	20
31	50	24	14
June 1	52	25	20
2	36	28	34
4	59	29	48
6	96	30	57
7	102	31	75
9	88	Aug. 2	68
11	78	3	58
		4	57
		5	48
		6	46
		7	41
		8	50

2400

2380

