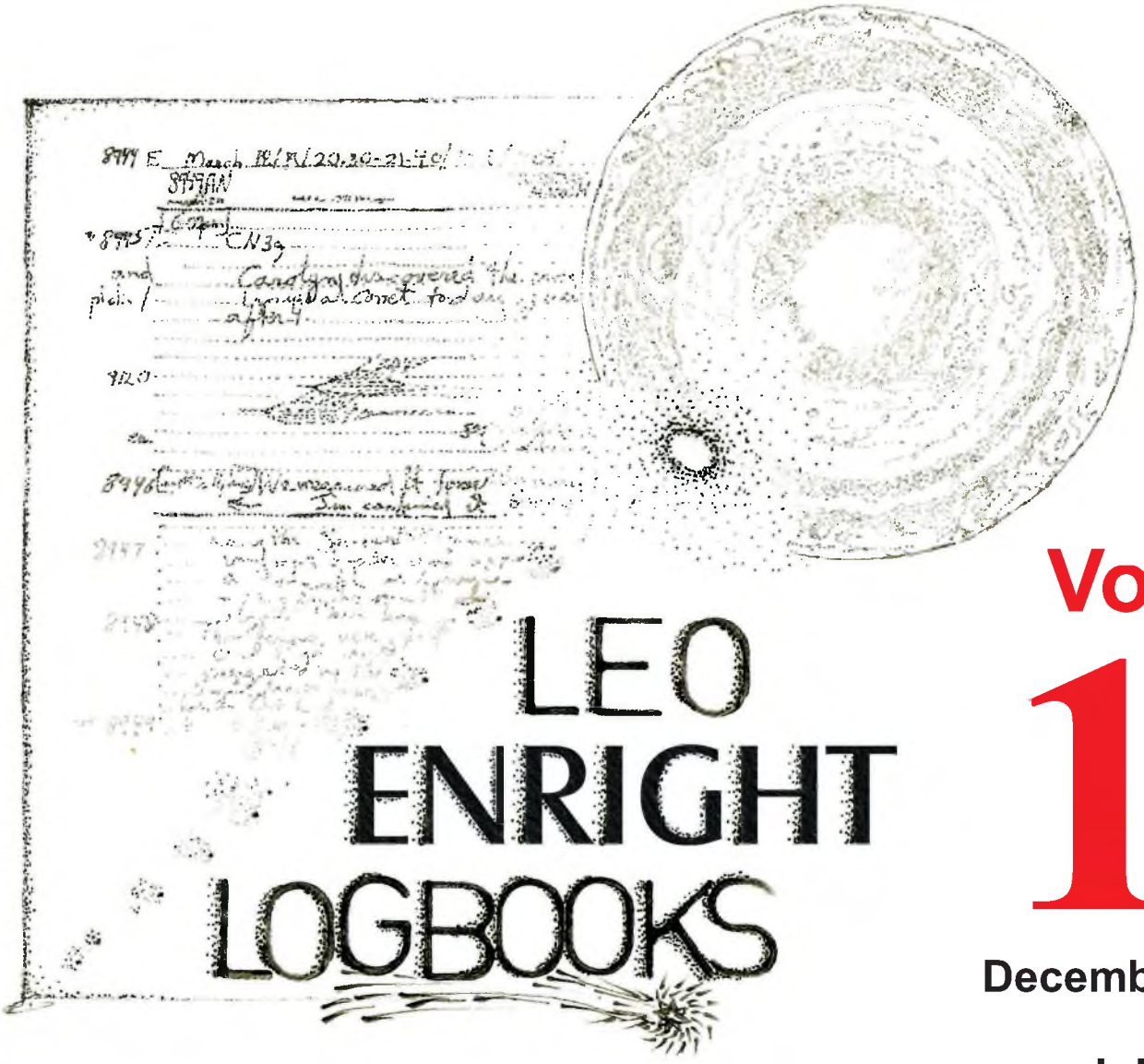

LEO ENRIGHT LOGBOOKS

Volume 17

December 3, 2000
to
July 23, 2001

17.

Hilroy

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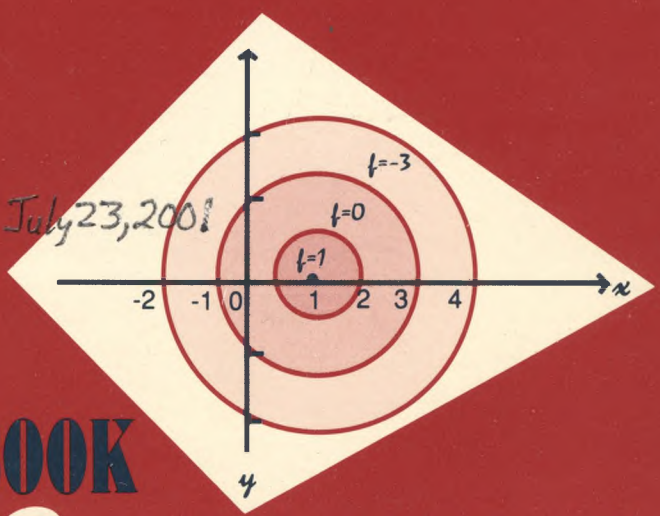
HILROY Toronto M6E 2R9
MADE IN INDONESIA • FABRIQUÉ EN INDONÉSIE

Leo Enright
Observing
Dec. 3, 2000 - July 23, 2001



MATH·SCIENCE NOTE BOOK

80 PAGES

CAHIER DE SCIENCES ET MATHS

heavyweight paper • papier épais 27.9 x 21.6 cm no.13-220

2001 THE ARTHRITIS SOCIETY 2001

JANUARY

S	M	T	W	T	F	S
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FEBRUARY

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Nationwide Toll-Free Number **1 (800) 321-1433** Internet Web site **www.arthritis.ca**

Observing Log

Code:

Year	Day	Date	Time	Place	Sky Conditions S=Seeing T=Transparency	Instrument(s)

Time:
UT = Universal Time
n = night
M = Morning
f = forenoon
a = afternoon
e = evening

Place:
OO = Oso Observatory
nd = north deck
sh = shoreline of lake
ss = solar station
t = table at solar station
in = indoors
r = roof of house
ice = ice on lake
sd = south deck
y = yard

Sky Conditions:
S = Seeing
T = Transparency
0-10 scale: 0 = nil or extremely poor; 10 = absolutely superb
cml = crescent moonlight
gml = gibbous moonlight
fml = full moon light

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 Dobsonian
20x100b = 20x100 binoculars
11x80b = 11x80 binoculars
9x63b = 9x63 binoculars
7x35b = 7x35 binoculars
18x50ISb = 18x50 IMAGE STABILIZED binoculars

EG = Easy Guider
EGlf = Easy Guider, lens forward
EGlb = Easy Guider, lens back

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
B = 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 Chart 210
AAVSO = AAVSO Variable Star Atlas
Cam = Cambridge Star Atlas 2000
MSA = Millennium Star Atlas.

2000

S.-M. Dec. 3-4 23:30-00:00 UT Bonita Springs, FL cml ne
- Jupiter, Saturn, Aldebaran, cr. moon, Venus

M.-T. Dec. 4-5 23:30-00:00 UT Bonita Springs, FL (driving) fq, ml; partly cloudy ne
Jupiter, Saturn, Venus, fq moon

T.-W. Dec. 5-6 01:30-02:00 UT Villages of Bonita, walking gml; partly cloudy ne
- Orion rising, Pleiades, Aldebaran, Jupiter, Saturn, Capella, and other Auriga stars, gibbous moon, Venus.

W.-Th. Dec. 6-7 23:45-00:00 UT Bonita Springs (driving) gml; some cloud ne
- Venus; g. moon; Jupiter, Saturn.

Th.-F. Dec. 7-8 03:35-03:40 UT Bonita Springs (walking on street) gml ne
- Jupiter, Saturn, Orion, Sirius, Procyon, Capella, Aldebaran

F.-S. Dec. 8-9 00:40-00:45 UT in car (driving in FL) gml ne
- Venus in S.W., Jupiter, Saturn, gibbous moon almost evenly spaced in Taurus - high in SE.

S.-S. Dec. 9-10 23:15-23:20 UT in car (going to hockey game in FL) ne
- Jupiter, Saturn, and almost full gibbous moon about half way between them, but slightly south of a line joining them.

S.-M. Dec. 10-11 01:55-02:00 UT walking on street in FL fml. ne
- Full Moon seen among clouds - almost totally overcast; no planets seen.

M.-T Dec. 11-12 00:18-00:19 UT in car (in FL) cloudy ne
- Venus - very bright in W.
03:30-03:35 UT on street (in FL) clear; fml. ne
- Full Moon, Jupiter and Saturn in Tau.; bright stars of Orion, Sirius, Procyon, Aldebaran.

2000

T.-W. Dec. 12-13. 22:45-22:50 UT at and walking from pool (in FL) twl ne
· earth's shadow very distinct in E.; Venus in W.; Jupiter above earth's shadow in E.
04:05-04:10 UT on street (in FL.) gml. ne.
· Jupiter and Saturn in Tau. near zenith; bright stars of Orion; Aldebaran; bright gibbous moon; Sirius; Procyon.

W.-Th. Dec. 13-14 00:45-02:45 UT backyard (in FL) ^ SGT7-8 - gml; (cloudy later) ^ ne; 10x25b
ne: observed Geminid Meteor Shower for 2 hours, seeing several bright ones mag. -2 to -4 and 6 Geminids in all, mainly in SE; saw Sirius, Procyon, and ^ Gibbous Moon rise at about 01:30 UT.
10x25b: area of RLep, but not sure of seeing the star; saw a Geminid in about the same field as RLep; M45; the Hyades; Jupiter; Saturn.

Th.-F. Dec. 14-15 03:12-04:42 UT backyard (in FL) ^ gml; SGT7 ne; 10x25b
ne: looked for Geminids and saw one about mag. -2 at 03:31 UT; bright stars of Ori, Per, Gem, Lep, Aur, Cas, Tau; star Canopus in SSE.
10x25b: M42; stars in Leo below moon in ENE; area of Lepus near RLep, but probably not RLep, Hyades, Jupiter, Saturn (2).

F.-S. Dec. 15-16 02:50-03:20 UT backyard (in FL) ^ gml; (quite cloudy) ^ ne; 10x25b
ne: Amid many clouds, I saw the bright stars of Ori, Gem, Tau, Cas, Per, but no Geminid meteors. Jupiter and Saturn were easily seen.
10x25b: Jupiter, Saturn, Hyades, area of RLep but the star was not seen with certainty

S.-S. Dec. 16-17 03:05-03:50 UT backyard in FL SGT7 ^ (some cloud) ne; 10x25b
ne: bright stars of Aur, Gem, Per, Cas, Ori, Lep, Tau, CMa, CMi, the star Canopus in SE, Jupiter, Saturn, (Venus seen earlier at about 23:00 UT when in car)

2000

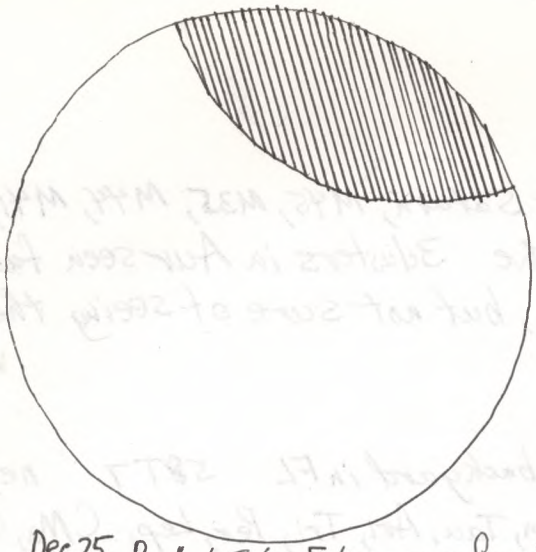
10x25b: Hyades, Jupiter, Saturn, M45, M35, M44, M41, M36, M37, M38, the 3 clusters in Aur seen faintly, area of RLep, but not sure of seeing the star.

S.-M. Dec. 17-18 02:50-03:50 UT backyard in FL S8T7 ne; 10x25b
ne: bright stars of Aur, Ori, Gem, Tau, Ari, Tri, Per, Lep, CMa, CMi, Cas (earlier also), star Canopus, Jupiter and Saturn in Tau and near zenith; one Geminid Meteor at about 03:38 UT of about mag. 2.5.
10x25b: M35, M36, M37, M38, M42, area of RLep though the star was probably not seen, Pleiades, Hyades, Jupiter (which was near the zenith), Saturn.

M-T. Dec. 18-19 23:15-23:20 UT on Old Hwy 41 in FL in car, twl ne
- Venus high in W.; Jupiter and Saturn in E.
02:50-3:30 UT backyard in FL S7T7-8 ne; 10x25b
ne: bright stars of Ori, Lep, Gem, CMa, CMi, Per, Cas, Tau, star Canopus.
10x25b: M41, M42, M35, M36, M37, M38, M45, Hyades, Jupiter, Saturn.

T.-W. Dec. 19-20 23:10-23:15 UT ret. from clubhouse in FL on street, twl ne
- Venus very brilliant in W.; Jupiter and Saturn in E.
01:50-2:50 UT backyard in FL S8T7, considerable cloud ne; 10x25b
ne: bright stars of Aur, Ori, Gem, CMi, CMa, Per, Cas, Tau, Jupiter, Saturn.
10x25b: M41, M42, M45, Hyades, Jupiter, Saturn

W.-Th. Dec. 20-21 23:10-23:15 UT street in FL. twl ne
- Venus-very bright and high in W.; Jupiter and Saturn high in E.
02:35-02:55 UT backyard in FL S7T7 ne; 10x25b
ne: bright stars of Tau, Per, Cas, Ori, Gem, Lep, CMa, CMi, Aur, the star Canopus, Jupiter, Saturn.



Dec. 25 Partial Solar Eclipse seen from S. Florida
View of sun through #14 arc welder's glass at about 17:15 UT about 10 minutes before the time of mid-eclipse

2000

10x25b: M35, M36, M37, M38, M41, M42, M44, Hyades, Jupiter, Saturn; area of RLep but probably not the star itself.

Th.-F. Dec. 21-22 03:15-03:30 UT backyard in FL coasiderable cloud ne
- bright stars of Orion, Procyon, Sirius, Aldebaran, Capella, Castor, Pollux, Jupiter, Saturn.

F.-S. Dec. 22-23 02:10-02:30 UT backyard in FL coasiderable cloud ne; 10x25b
ne: bright stars of Ori, Aur, Per, Tau, Gem; Procyon, Sirius,
10x25b: M45, M42, Hyades, Jupiter, Saturn.

S.-S. Dec. 23-24 03:58-04:00 UT backyard in FL. TO; overcast ne
- no stars to be seen because of overcast conditions, but earlier at about 23:30 UT, the planets Venus in W, and Jupiter and Saturn in E., had been seen

S.-M. Dec. 24-25 backyard in FL S8(?)T8 ne
- bright stars of Ori, Gem, Tau, Jupiter, Saturn, star Canopus; Venus had been seen earlier at about 23:00 UT.
- very clear and beautiful night.

M. Dec. 25 16:10-19:05 UT near pool and clubhouse; backyard in FL intermittent cloud ne; welder's glass
- periodically observed partial solar eclipse - first seen at 16:14 UT (3 min. after S.T. listed time for First Contact at Miami) - noticeable even then through ~~#~~ 14 arc welder's glass - seen intermittently in area of clubhouse pool and shown to two groups of people - pinhole projection through a hole in a piece of cardboard also used - to about 17:15 UT - returned to condo - went to condo of neighbours, Gary and Carla Krueger, to see if they wanted to view the eclipse, but they did not answer the door - had a period of very cloudy skies from about 17:30 to about 18:00 UT, then several periods of fairly clear skies. (S.T. listed mid-eclipse mag. as .319 (31.9%) at 17:28 UT (12:38 E.S.T.) (See accompanying drawing.)

Later, in backyard, I had several good views of the diminishing eclipse during periods when the clouds allowed a good view. Last noticeable "bite" was well before the predicted time of 19:04UT (2:04p.m. E.S.T.) at Miami — at perhaps about 18:58UT.
Overall, it was a fairly good viewing session, with the intermittent cloud being a distraction for a time.

M.-T. Dec. 25-26 01:15-01:20UT backyard in FL S8T7 ne
-bright stars of Ori, Aur, Gem, CMa, CMi, Tau, Jupiter, Saturn, M45.

01:50-02:00UT backyard in FL ne; 10x25b
ne.: bright stars, Jupiter, Saturn, Venus in W.
10x25b: M42, M45, area of Rlep, though the star itself may not have been seen.

03:35-03:36 some cloud ne
bright stars, Jupiter and Saturn, the star Canopus.

T.-W. Dec. 26-27 02:02-02:~~42~~UT backyard in FL. S7T7 ne; 10x25b
ne: bright stars of Aur, Per, Gem, Ori, Lep, CMa, CMi, Ari (2 stars ne), Cas; Jupiter; Saturn; stars Canopus and Regulus, after they rose.
10x25b: M35, M36, M37, M38, M41, M42, M44, M45, Jupiter, Saturn, Hyades, area of the star RLep though the star was not seen for certain.

W.-Th. Dec. 27-28 04:27-04:30UT backyard in FL S8T5; some cloud ne
-bright stars of Ori, CMa, Procyon, Castor and Pollux, Aldebaran, Canopus, Jupiter, Saturn, Venus (seen earlier at about 23:05 UT) in the W.

Th.-F. Dec. 28-29 04:10-04:15UT backyard in FL some cloud ne
-bright stars of Ori, Sirius, Procyon, Castor, Pollux, Capella, Aldebaran, Jupiter, Saturn.

F.-S. Dec. 29-30 22:55-23:05UT ~~back~~ near house in FL. twl ne
-crescent moon high in SW and only about 2° SW of Venus

2000

which was ~~seen~~ very bright - both seen periodically as I was walking in the development.

04:45-04:50 UT backyard in FL some cloud ne

- bright stars of Ori; Sirius, Procyon, Castor, Pollux, stars of Aur, Aldebaran, Pleiades, Jupiter, Saturn, star Canopus

S.-S. Dec. 30-31 04:10-04:20 UT backyard in FL. S7T7 ne

- bright stars of Ori, Lep, Aur, Gem, Per, CMa; stars Canopus, Procyon, Aldebaran, Pleiades, Regulus, 5 stars of UMa, Polaris, Jupiter and Saturn in Tau.

2000-2001 S.-M. Dec 31-Jan. 1 23:05-23:10 UT at Walden Oaks development in FL walking with Denise ^ twl ne

- Cr. Moon and Venus high in SW; Jupiter and Saturn in E.

04:55-05:05 UT backyard in FL S7T7 ne

- bright stars of Ori, Sirius, Procyon, Jupiter, Saturn, star Canopus - amid New Year's Eve fireworks in the E., N., and S.

05:16-05:20 UT backyard in FL. S7T7 ne

- bright stars of Aur, Per, 7 stars of the Big Dipper, Polaris, Pleiades, Hyades, bright stars of Gem, Leo, CMa - amid seeing fireworks display marking New Year's Eve.

2001 M.-T. Jan. 1-2 21:45-22:00 UT near pool at clubhouse in FL daylight before ^ twl ne

- attempted to see Venus well before sunset, but was not sure of seeing it. First Quarter Moon was high in the ~~S~~southern sky.

03:30-03:40 UT walking on streets in FL considerable cloud T3 ^ ne

- First Quarter Moon behind clouds in W.; bright stars of Ori, Sirius, Procyon, Aldebaran, Jupiter, Saturn, but considerable cloud.

T.-W. Jan. 9-10 04:20-04:25 nd full ne

- bright stars of Ori, Aldebaran, Sirius, Procyon, Castor, Pollux, Jupiter, Saturn, Full Moon just hours after a Total Lunar Eclipse

which had almost ended before moonrise

04:30–04:35 UT nd ful ne

- tried to take some handheld landscape photographs under a very bright Full Moon - perhaps the brightest in many years, because –

(1) near perigee Full Moon (Full: Jan. 9, 20^{h}24^m UT; Perigee: Jan. 10, 9^h UT)

(2) Earth-Moon system near perihelion (date: Jan. 4, 9^h UT), and

(3) Full Moon very near the anti-solar point in the sky, since it was just past the time of a Total Lunar Eclipse (by about 7 or 8 hours or so). See time of Full Moon, above. That is, the moon was near one of the nodes of its orbit, not far above or below the ecliptic. (A Full Moon may be up to 5° above or below the ecliptic.)

Th. Jan. 11 18:25–18:30 UT t C-8, 32 T. O.F.

sun 6g 30s RSN90 (Drawing: See previous log.)

W. Jan. 17 18:35–18:40 UT t C-8, 32 T. O.F.

sun 4g 9s RSN49 (Drawing: See previous log.)

W.–Th. Jan. 17–18 02:10–03:15 UT y S8T 9–9.5 (!) ne; 20x100b; 18x50 15b

ne: winter constellations, Jupiter, Saturn.

20x100b: Hyades, M42, M43, M41, RX Eri, R Lep (faint), RX Lep, M78.

18x50 15b: R Leonis, Pleiades, Saturn, Jupiter, M33, M31.

Sa. Jan. 20 17:30–17:35 UT t C-8, 32 T. O.F.

sun 4g 15s RSN55 (Drawing: See previous log.)

Sa.–Su. Jan. 20–21 03:10–04:10 UT y S8(?) T9.5 ne; 18x50 15b

ne: constellations, Jupiter, Saturn, (Venus earlier), Gegenschein in Gemini fairly easy to see.

18x50 15b: M42, M43, M41, M44, Pleiades, Hyades, Jupiter, Saturn, R Leonis, R Lep (faint) and area, RX Lep, RX Eri area but the star itself seemed too faint to see readily, Alcor and Mizar, M31, M33.

2001

M. Jan. 22 17:30-17:35 UT t C-8, 32
sun 6g 19s RSN79 (Drawing: See previous log.) T.O.F.

Th. Jan. 25 18:00-18:05 UT C-8, 32
sun 6g 31s RSN91 (Drawing: See previous log.) T.O.F.

Th.-F. Jan. 25-26 22:05-22:50 UT on lake twl ne; 135mm lens
ne: viewing rising of earth's shadow in E.; Venus easily visible in W.
- photographed the earth's shadow.
- looked for, but did not see, Mercury or the very thin crescent moon in the W., though I had hoped to see one or both of them about 40 - 45 min. after sunset which was at about 22:01 UT (5:01 p.m. E.S.T.), that is from about 22:40-22:45 UT.
- photographed area near W. horizon hoping possibly to record either the moon or Mercury photographically.

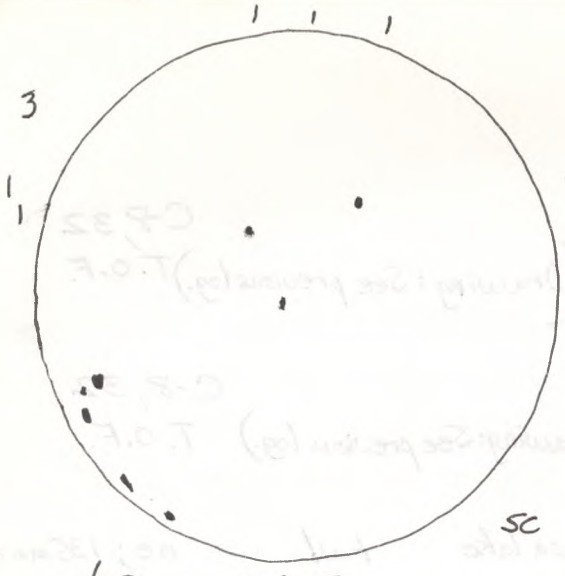
C-14, 19
01:10 - 03:10 UT oo 58T9-9.5 (!) until clouds came ne; 18X50SB, N
ne: Constellations, Zodiacal Light in W. up at least to constellation Aries.
18X50SB: Pleiades, RLep (very faint, but seen); RX Eri area but star itself seemed too faint to see, M42, M41, areas of Milky Way above CMa, NGC2244, SMon and area, RLeonis
C-14, 19: Jupiter
- photographed - 1 photo guided - 135 mm lens - Orion area.

Th. Feb. 1. 18:15-18:25 UT t C-8, 32
sun 3g 5s RSN35 (Drawing: See previous log.) T.O.F.

Sa. Feb. 3 17:50-17:55 UT t C-8, 32
sun 4g 27s RSN67 (Drawing: See previous log.) T.O.F.

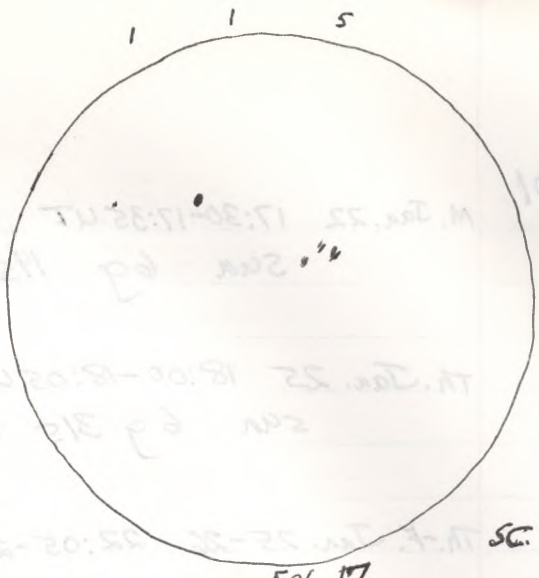
Sa. Feb. 10 15:45-15:50 UT t C-8, 32
sun 2g 9s RSN29 (Drawing: See previous log.) T.O.F.

Sa. Feb. 10-11 01:20-01:30 UT y 5-8, T9.5! ne
constellations.



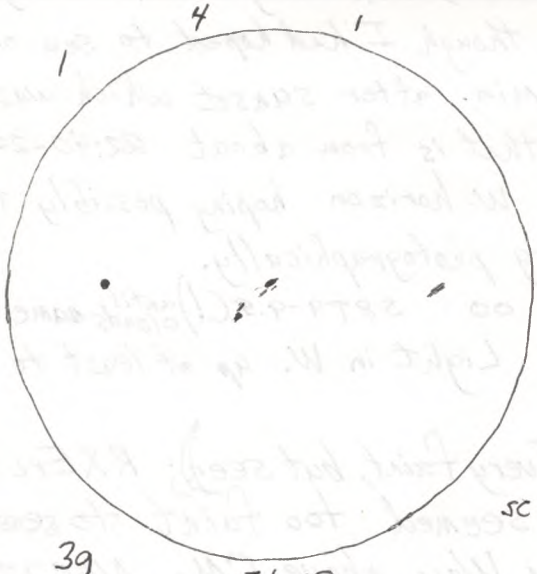
6 g
8 s
RSN68

Feb. 15
19:05-19:10 UT



3 g
7 s
RSN37

Feb. 17
17:35-17:40



3g
6s
RSN36

Feb. 18

2001

Su. Feb. 11 17:35-17:40 UT t C-8, 32
sun 5g 9s RSN59 (Drawing: See previous log.) T.O.F.

Su.-M. Feb. 11-12 00:45-01:00 UT y S8, T9.5! ne
-constellations, Zodiacal Light, M31.

Th. Feb. 15 19:05-19:10 UT t C-8, 32
sun 6g 8s RSN68 T.O.F.

Th.-F. Feb 15-16 01:50-02:45 UT y S8T9 ne; 18x50 SB
ne: constellations, Saturn, Jupiter, M31, Double Cluster.
18x50 SB: M42, M43, M41, M78, NGC2244, M44, RX Eri (very faint at about mag. 10), R Lep (faint - about mag. 9.5), M57, R Leonis (bright - about mag. 6.5), Double Cluster, M33, M31, some of the area near T Pyxidis, but the immediate area of the star was not seen well, Jupiter, Saturn, M81, M82, Pleiades, Hyades.

Sa. Feb. 17 17:35-17:40 UT t C-8, 32
sun 3g 7s RSN37 T.O.F.

Sa.-Su. Feb. 17-18 00:00-00:02 UT nd twl (15 min before end of twl) S-8T9.5! ne
-constellations, Zodiacal Light very bright in W., Venus extremely brilliant in W. - about mag. -4.6!
03:55-04:20 UT y S-8.5T9-9.5 ne; 18x50 SB
ne: Constellations, Jupiter, Saturn, one meteor in Per — about mag. 3.
18x50 SB: M42, M43, M41, M78, M45, Hyades, Jupiter, Saturn, NGC2244, μ Cep (the Garnet Star), δ Cep and area, M57, Alcor and Mizar, M44, R Leonis - bright - about mag. 6.5, M35, M36, M37, M38.

Su. Feb 18 19:55-20:00 UT t C-8, 32
sun 3g 6s RSN36 T.O.F.

49
18S
RSN58

Feb. 21
18:40-18:45 UT

29
12S
RSN32

Feb. 26
17:00-17:05 UT

2001

W. Feb. 21 18:40-18:45 t C-8, 32
Sun 4g 18s RSN58 T.O.F.

W.-Th. Feb. 21-22. 00:20-00:25 UT y S-8 T9-9.5! ne
- began watching for International Space Station about 1 min. after the end of astronomical twilight (00:19 UT = 7:19 p.m. E.S.T.). It appeared, as predicted about 00:22 UT (7:22 p.m. E.S.T.), in WNW and passed almost overhead toward SE, very bright - at about mag. -1.5, brighter than Saturn which was about mag. -0.2, but not as bright as Jupiter, near which it passed, at mag. -2.4, nor, of course, Venus, in the W. which was within an hour of this elongation's greatest brilliancy, at mag. -4.6 (!) which was scheduled for 1h UT! The passage lasted about 3 minutes, and the ISS disappeared into the earth's shadow high in the SE. - some winter constellations.

03:50-04:10 UT y S-7-8 T9.5! ne; 18x50 15b

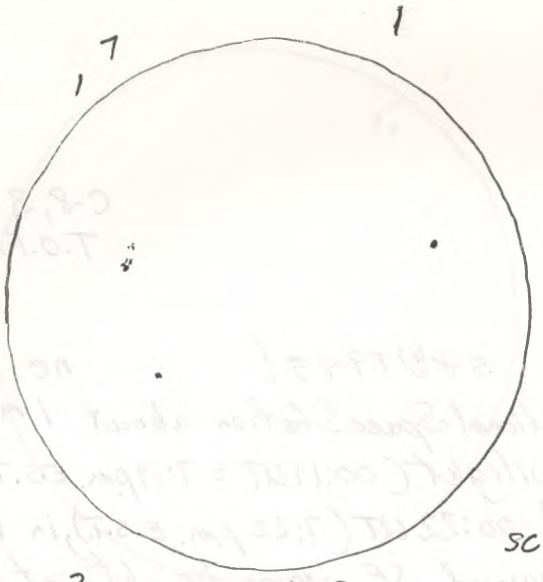
ne: constellations

18x50 15b: M44, M42, M43, M45, Hyades, M35, M36, M37, M38, NGC 2244, Jupiter, Saturn, areas of the Milky Way, S Mon and area, Double Cluster, R Leonis - bright at about mag. 6.5 - area near T Pyxidis

F. S. Feb. 23-24 04:00-04:02 UT nd S-8 T8.5 ne
- winter constellations; Jupiter and Saturn bright in Tau in W. Venus, very brilliant had been seen earlier.

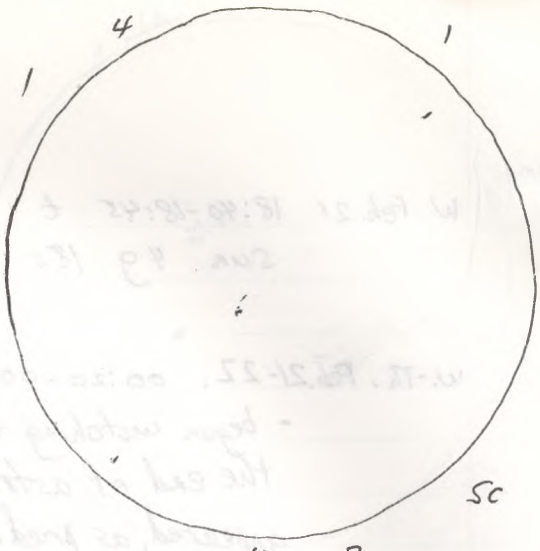
M. Feb. 26. 17:00-17:05 UT t C-8, 32
Sun 2g 12s RSN32 T. O. F.

M.-T. Feb. 26-27 23:45-01:45 UT 00 S-8 T9-9.5 ne; C-8, 19, 12, 52
- ne: Venus and Moon - about 12° apart in WNW and about equally bright (though the thin crescent moon was about 3.6 days old and had been seen ne at about 22:04 UT (5:04 p.m. E.S.T), well before sunset



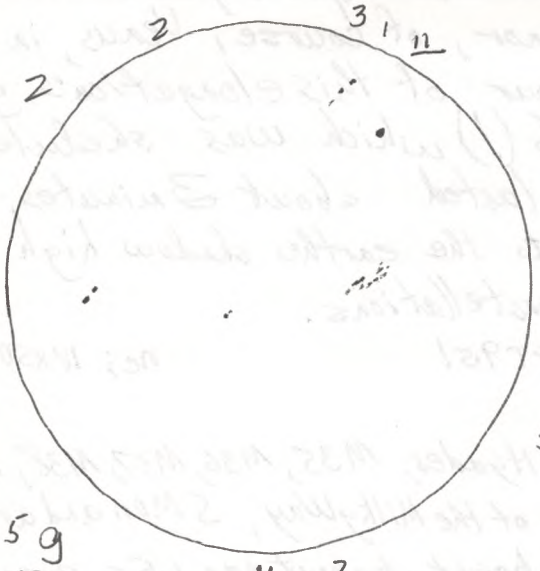
3g
9s
RSN39

Feb. 28
16:30-16:35UT



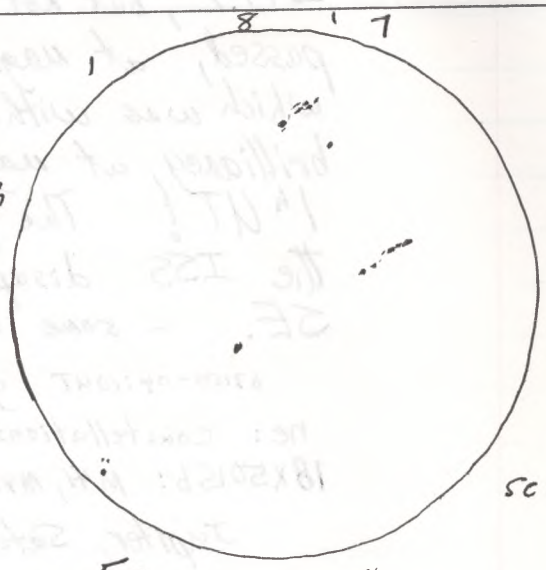
3g
6s
RSN36

Mar. 2
17:35-17:40UT



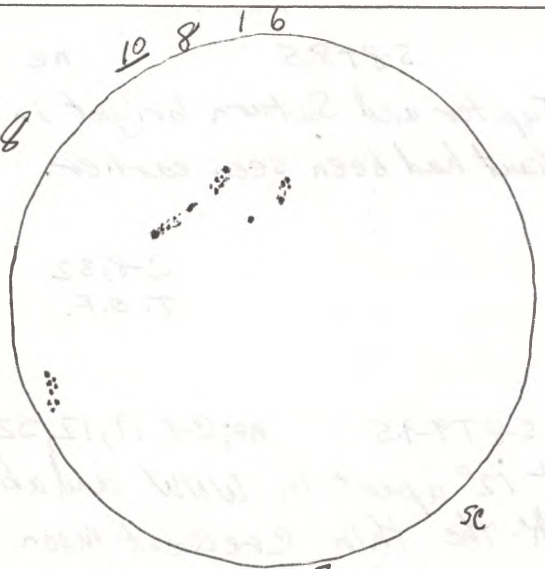
5g
19s
RSN69

Mar. 3
17:40-17:40UT



5g
20s
RSN70

Mar. 4
19:55-20:00 UT



5g
33s
RSN83

Mar. 7
18:45-18:50UT

2001

which had been at 22:47 UT (5:47 p.m. E.S.T.); Jupiter, Saturn, constellations; Zodiacal Light.

C-14: Venus - small crescent, Jupiter and 4 Galilean moons and later the transit ingress of Ganymede, Saturn and Titan and another of the moons, M42, M43, Trapezium, M44, M35, M36, M37, NGC2244

·guest at observatory - Martin Webster of Sharbot Lake

T.-W. Feb. 27-28 04:05-04:15 UT y 58(?)T 9.5(!) ne; 18x50 15b

ne:- constellations, Jupiter, Saturn (Venus and crescent moon seen earlier)

18x50 15b: M42, R Leonis - bright - about mag. 6.5, area of T Pyxidis or approximate area, but not sure of precise area, Jupiter, Saturn, Pleiades.

W. Feb. 28 16:30-16:35 UT t C-8, 32 T.O.F.

sun 3g 9s RSN39.

F. Mar. 2 17:35-17:40 t C-8, 32 T.O.F.

sun 3g 6s RSN36

Sa. Mar. 3 17:40-17:45 UT t C-8, 32 T.O.F.

sun 5g 19s RSN69

Su. Mar. 4 19:55-20:00 UT t C-8, 32 T.O.F.

sun 5g 20s RSN70

T.-W. Mar. 6-7 00:50-00:51 UT nd gml. ne

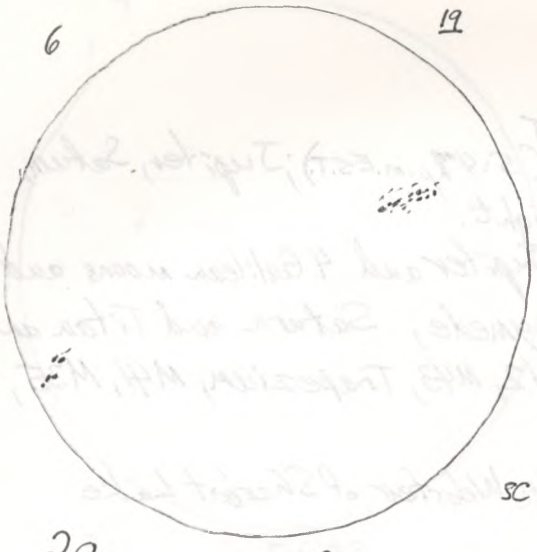
- bright stars of winter constellations, Jupiter, Saturn, Venus in W. extremely bright and about 15° above the horizon.

W. Mar. 7 18:45-18:50 UT t C-8, 32 T.O.F.

sun 5g 33s RSN83

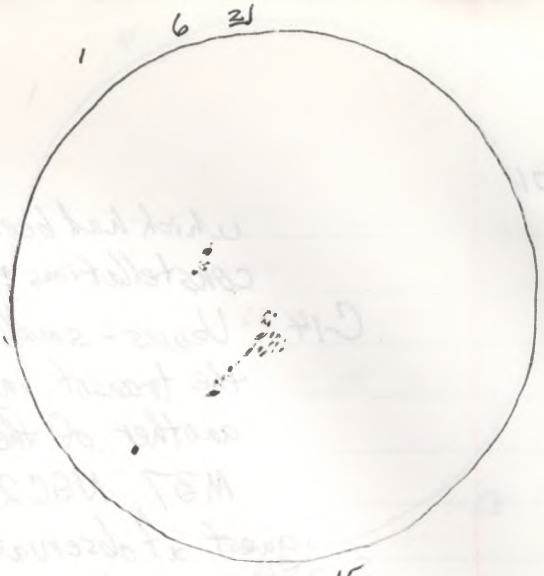
S.-M. Mar. 11-12 01:20-01:22 UT nd 58(?)T9 ne

- winter and early spring constellations, Venus low in W., Jupiter and Saturn in Tau.



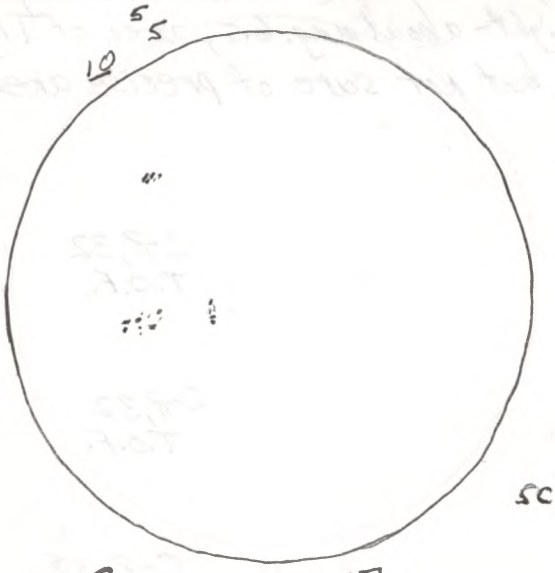
29
25s
RSN45

Mar. 12
17:15-17:20 UT



39
28s
RSN58

Mar. 15
17:25-17:30 UT



39
20s
RSN50

Mar. 17
14:55-15:00 UT

2001

01:30-01:45 UT y S8(?)T9 (during and after gibbous moonrise at 01:44UT) ne; 18x50 IS b

- ne: Algol
- 18x50b: M31, M51, M41, M42, area of R Lep but star was very faint and perhaps not seen for sure, Pleiades, Hyades, Jupiter, Saturn, area of or near T Pyxidis, R Leonis - at or near its max. mag. of about Mag. 5.9 - predicted date of max. being Mar. 7 - according to Sky and Telescope magazine, RX Lep, area of RX Eri - but star seemed too faint to be seen, R Eri.

M. Mar. 12 17:15-17:20 UT t C-8, 32
sun 2g 25s RSN 45 T.O.F.

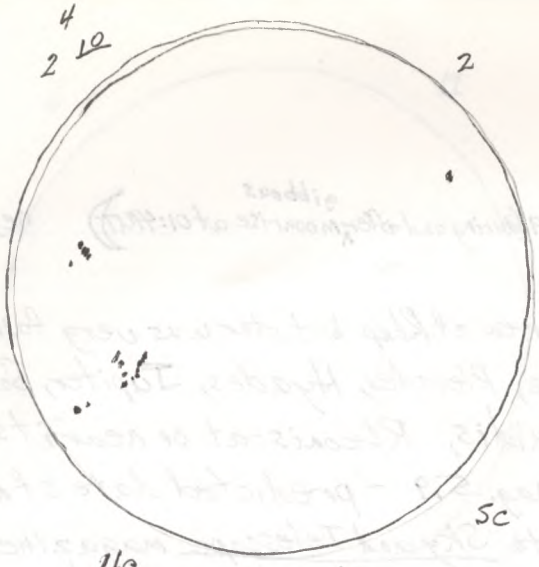
Th. Mar. 15 17:25-17:30 UT t C-8, 32
sun 3g 28s RSN 58 T.O.F.

Th-F. Mar. 15-16 00:20-05:30 UT 00 S8T9 C-14; 20x100b.
- observed with a group of 9 or 10 members of the Katimavik organization

C-14: Jupiter and 4 moons, Saturn and Titan and 1 or 2 other moons, M37

20x100b: M42, M43, R Leonis, and several objects on David Levy's list of favorite objects (from S. & T Apr. 2001, p. 113-117) — 1) the star 47 UMa, 2) the variable star V Hydrae (U325) which seemed to be about two to three magnitudes brighter than the 10.9 listed in the article as its maximum; in other words at about mag. 8.0. It is listed in Burnham's Handbook as having magnitudes from 6.5 to 12 ... and a period of 533 days. It was very, very red, 3) the area of the galaxy NGC 3621 in Hydra (See U. 362) but was not sure of seeing the galaxy, perhaps because of some sky glow in the southern sky 4) Σ2814 (and nearby Σ2816) in Cepheus, although this double star was not split in the binoculars.

Sa. Mar. 17 14:55-15:00 UT t C-8, 32
sun 3g 20s RSN 50 T.O.F.



49
18S
RSN58

Mar. 19
17:00-17:05 UT

20×100 binocular view of Venus in W., 11 days before opposition.

Mar. 19
23:30 uT

2001

S.-M. Mar. 18-19 23:40-23:55 UT ice and y twl ne
- bright stars appearing, Saturn, Jupiter, Venus-now up only about 15° at this time in the evening in the WNW.
00:15-00:25 UT y twl 20x100b
- Jupiter and two moons, Saturn, Pleiades, M42, M41.
01:10-03:10 UT y S&T 9-9.5 ne; 20x100b
ne: Constellations, Zodiacal Light quite clear in WNW.
20x100b: M46, M47, nearby star KQ Pup (See U274, and Bur., p. 1495 for KQ Pup - mag. 4.9-5.2; period not listed). R Leonis - bright - about mag. 7.0 perhaps; V Mon - predicted to be up to mag 7.0 on Mar. 17, according to AAVSO predictions. (See U227.), R Lep - faint - about mag. 10; RW Lep - bright - about mag. 7.5; M42 and area nearby; NGC 2261 in Mon (faint - listed as mag. 10.5 on David Levy's list of favorite objects. ~See U182.) NGC 1931 (in Auriga, and also on David Levy's list of favorite objects - very faint in the binoculars, listed as mag. 11.3. See U97. - near M36); M36; M37; M38; area of T Pyxidis - examined thoroughly, but the star itself was not seen in the binoculars; area of TU Corvi (one of David's favorites, also) but the star was not seen - it is a very faint variable with a listed range from mag. 12-17, NNW from R Corvi; R Corvi - bright at about mag. 7.5.

NGC 2261 - Hubble's Variable Nebula

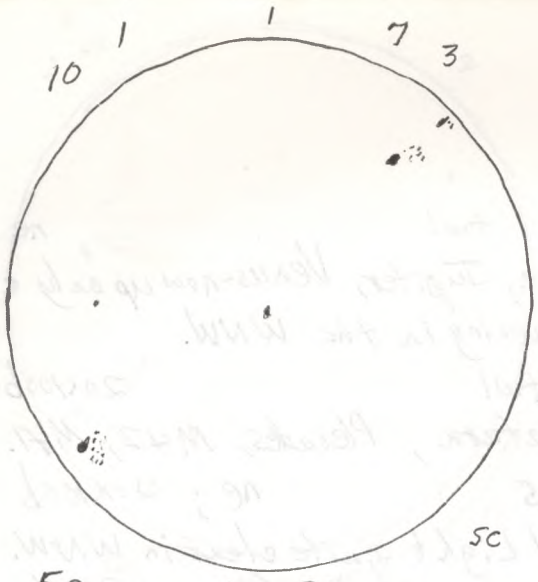
NGC 1931

TU Corvi area

M. Mar. 19 17:00-17:05 UT t C-8, 32
sun 4g 18s RSN 58 T.O.F.

M.-T. Mar. 19-20 23:30-23:35 UT 00 twl 20x100b
- Venus above trees in WNW at about altitude 15° and appearing as a slim crescent
01:00-04:40 UT 00 S&T 9-9.5 ne; 20x100b; C-14, 32-2
- ne: constellations, Jupiter, Saturn, bright object in central part of constellation Leo, probably a point meteor; very interesting Aurora that eventually lasted all night, occasionally active with vertical spikes and bands, and sometimes with an arc or several arcs - mainly

Aurora!



59
22 S
RSN77

Mar. 20
19:55 – 20:00 UT

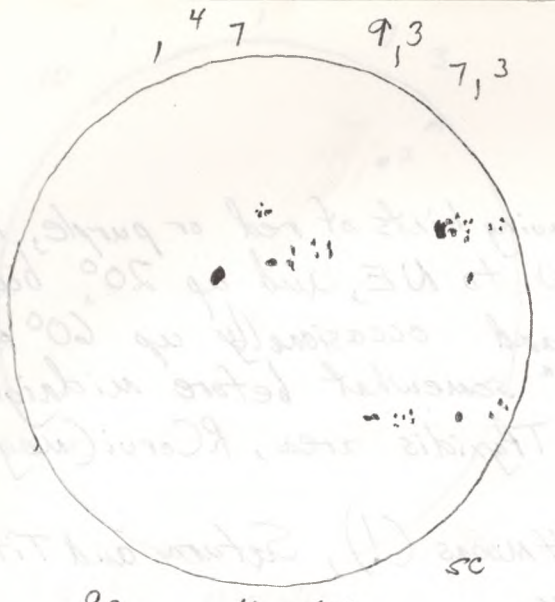
white, but occasionally having hints of red or purple, in N extending from NW to NE, and up 20°, but sometimes up to 40° and occasionally up 60° or more, - seemed to "die down" somewhat before midnight
20×100b: M42, M43, T Pyxidis area, R Corvi (Mag 7.5) and area
C-14, 32: Jupiter and 4 moons (!), Saturn and Titan, M36 and area.
08:45 – 10:00 UT y S(8?)T 7-8 (Aurora brightness) ne
After sleeping for about 3 ¼ hours, I got up and went out to observe and photograph the continuing Aurora. It was now much more active – with considerable flaming and pulsating. It filled the northern half of the sky and extended beyond the zenith. There were only slight hints of red or purple colours. It was very active and very visible at and after the time of the beginning of morning astronomical twilight at 9:34 UT (4:34 a.m E.S.T.) and I continued to observe it until about 10:00 UT (5:00 a.m E.S.T.) I also photographed Mars above the stars of Scorpius in the S.

Aurora! (Continued)

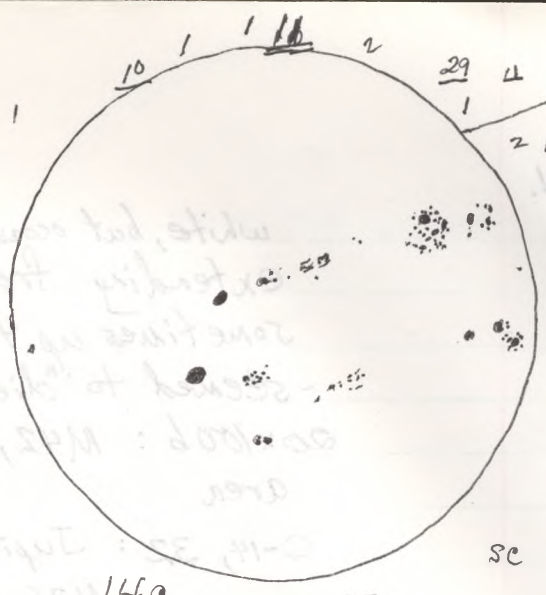
Tu. Mar. 20 19:55–20:00 UT t C-8, 32
Sun 5g 22s RSN72 T.O.F.

T.-W. Mar. 20-21 02:03-02:09 UT nd S-8 T8.5 ne
- constellations; Jupiter, Saturn; Venus had been seen earlier low in W. among the trees at about 23:50 UT.

F.-S. Mar. 23-24 02:50–04:15 UT y S-7-8 T9 ne; 18×50 15b
ne:– Constellations, Jupiter, Saturn, (Venus had been seen earlier, after sunset; Zodiacal Light in W.; slight glow in N. that seemed to be slightly reddish and perhaps was Aurora. β Per (Algol) seen at minimum.
18×50 15b: M42 and area, NGC 2244 and S Mon and area, M35, M36, M37, M38, M1, M44, M45,

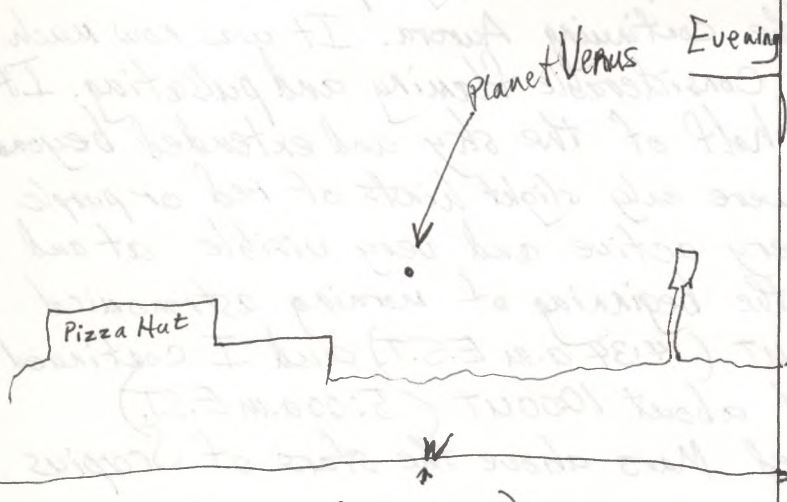


99 Mar.24
365 14:45-14:50UT
RSN126

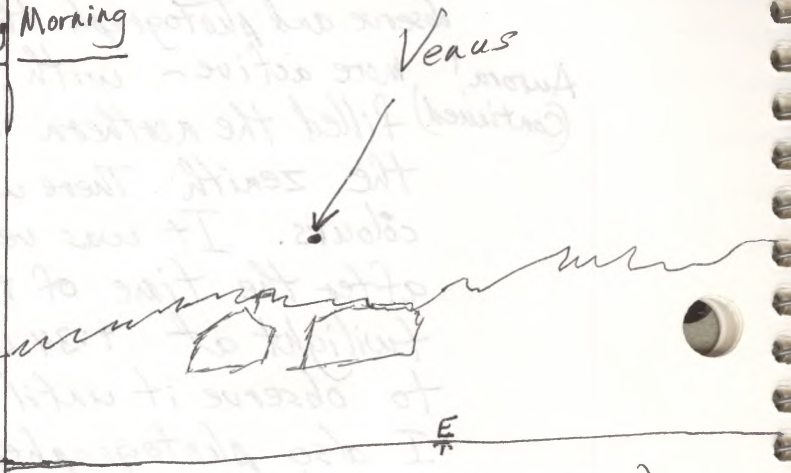


149 Mar. 25
94S 15:45-15:50UT
RSN234

Evening Morning



Mar.25-26 00:00UT (7:00p.m.EST)
View to W. from parking lot near the intersection of Bath Road and Gardiner's Road.



Mar.25-26 10:44UT (5:44a.m.EST)
View to E. from dock on Hawley Bay, Lower Sharbot Lake.

2001.

Jupiter, Saturn, R Corvi - at about Mag. 7, R Leonis at about mag. 6.5; T Pyxidis area examined fairly carefully, M1 and area, M51, δ Cep and area, μ Cep and area.

Sa Mar. 24 14:45-14:50 UT C-8, 32
sun 9g 36s RSN 126 T.O.F.

Su. Mar. 25 15:45-15:50 UT + C-8, 32
sun 14g 94s RSN 234 T.O.F.

S.-M. Mar. 25-26 00:00 UT parking lot near intersection of Bath Rd. and Gardiners Road twl ne
- Denise and I saw planet Venus low in W. (See diagram.)
04:15-04:24 UT y S-8(?) T9 ne; 18x50 15b
ne: constellations, slight hint of brightness in N., that might have been Auroral.
18x50 15b: R Corvi and area - star about mag. 7.5; R Leonis - star bright at about mag. 6.5., M13 in Hercules
(4:20 - 4:30 a.m. E.S.T.)
09:20 - 09:30 UT sh S-8(?) T8-9 ne; Camera + 35 mm lens
ne: Constellations, Mars in S above Scorpius and bright at mag. 0.1 - photographed area of Mars. The beginning of astronomical twilight was at 9:21 UT (4:21 am. E.S.T.)
(5:20 - 6:00 a.m. E.S.T.)
10:20 - 11:00 UT sh twl ne; 9x63b
ne: increasing twilight; (Mars, Antares, δ Sco and the two stars in Sco - one above and one below were seen in binoculars)
9x63b: Venus - seen when about 2½°-3° above the horizon - about ½° above the trees across the lake (See diagram.) at about 10:43:45 UT and seen in binoculars for about 12 minutes until about 10:55 UT. I was not sure of seeing it naked-eye; though I tried and thought for an instant that I did. This "morning view" of Venus was 4 days before it officially left the evening sky.

evening and morning view of Venus on the same night

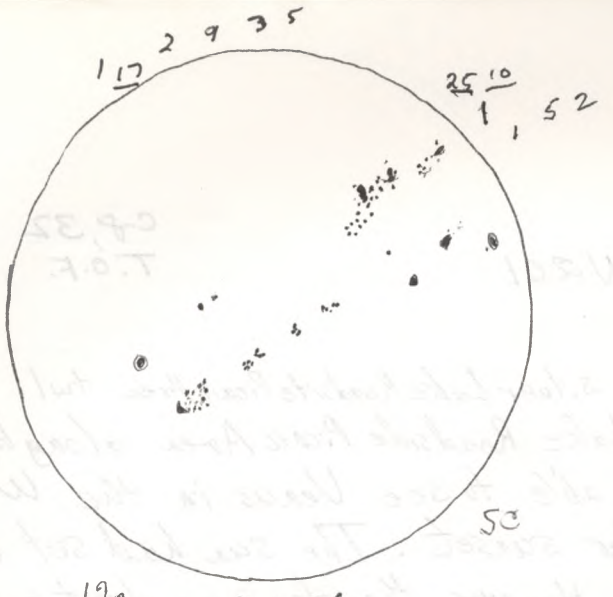
2001

M. Mar. 26 17:35-17:45 UT t C-8, 32
sun 12g 81S RSN201 T.O.F.

M.-T. Mar. 26-27 23:35-23:45 UT Silver Lake Roadside Picnic Area twl ne
- I drove to Silver Lake Roadside Picnic Area along Highway #7, hoping to be able to see Venus in the W about 20 minutes after sunset. The sun had set at about 23:24 UT. However, the sky was almost completely cloudy. If I had seen Venus, I might have had a chance to photograph it, both at that "second night of two appearances of Venus. (The previous night I had observed it in the evening sky after sunset and in the eastern sky before sunrise.) The sky at Silver Lake was, in fact, almost totally overcast.

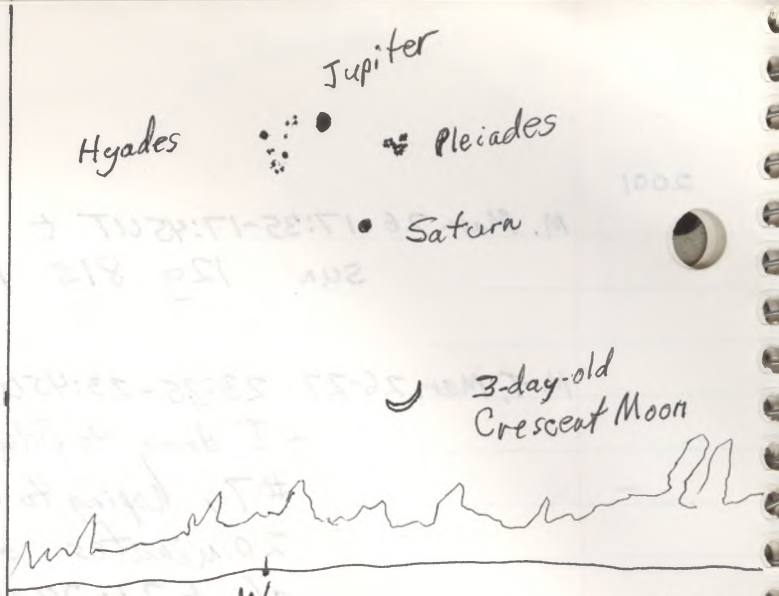
m. 10:30-11:00 UT (5:30-6:00 a.m. E.S.T.) sh twl 9x63b
- During the latter part of morning twilight, I tried, with binoculars to observe the planet Venus in the E. as I had done the previous morning. However, in general, I was frustrated by clouds along the eastern horizon, although the sky was generally mainly clear. Most of the clouds in the E. were up only about 10°. Sunrise was at about 10:58 UT (5:58 a.m. E.S.T.). While scanning with the binoculars, I thought I actually saw Venus go through the field - very briefly, that is, for about one second, but I did not subsequently locate it with certainty. That occurred just shortly before the time of sunrise, that is, at approximately 10:55 UT (5:55 a.m. E.S.T.). I did, however, see Mars, using the binoculars, several times during the first 20 minutes of the observing session; it was almost due S., perhaps even past the meridian.

T.-W. Mar. 27-28 23:50-23:55 UT ice twl ne
About 25 min. after sunset, which was at 23:26 UT (6:26 p.m. EST),
I went out on the ice, about halfway to the island, hoping to be able to see Venus low in the W., but I did not see it,

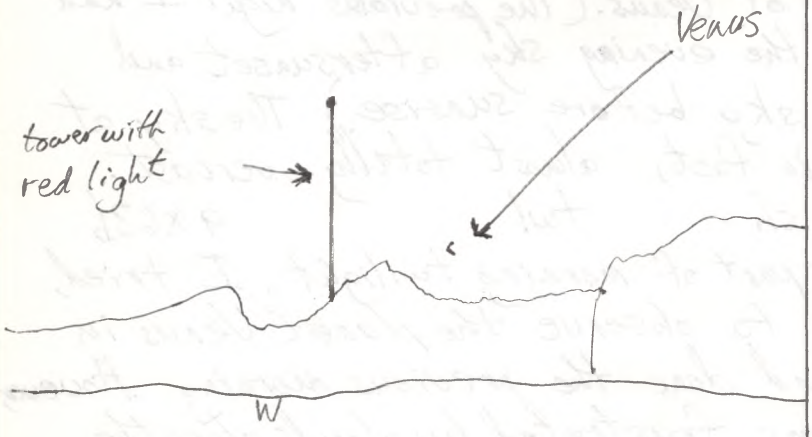


12g
81S
RSN201

Mar. 26
17:30-17:40 UT



T.-W. Mar. 27-28 01:40 UT - View to West.
(about 2 hours and 15 minutes after sunset)



Mar. 28-29 23:40 UT (6:40 p.m. E.S.T.)
View from Oso Township Beach Park, near the Sharbot Lake
Medical Centre toward W, across Upper Sharbot Lake.

2001

I did see the thin crescent moon, now almost 3 days old, fairly high in the W.

01:38 - 01:40 UT nd S8(?)T9-9.5(!) ne

- late winter and early spring coastellations; Jupiter, Saturn, crescent moon in W. (See diagram.)

03:40 - 04:05 UT y S8 T8 ne; 18x50b

ne: constellations of spring

18x50b: M36, M37, M38, M35, R Corvi - about mag. 8; R Leonis - about mag. 6,. R CorBor and area (star about mag. 7.5, area of TCorBor.

Mar. 28-29 23:40 - 23:50 UT Oso Beach Park twl ne; 18x50b 15

Hoping to see Venus after sunset, which had been at 23:27 (6:27 p.m. E.S.T.), I went to Oso Beach Park near the Sherbot Lake Medical Centre, and with the 18x50 15 b was able to see Venus for about 10 minutes, beginning about 15 min. after sunset when it was about 1½° above the horizon. The crescent moon was far above Venus, up about 45° above the horizon. (See diagram.) - photographed W. sky.

Venus in evening twilight about 28 hours before inferior conjunction.

01:10 - 01:14 UT y S-8(?) T9 ne: 18x50 15 b

ne: constellations of late winter and spring.

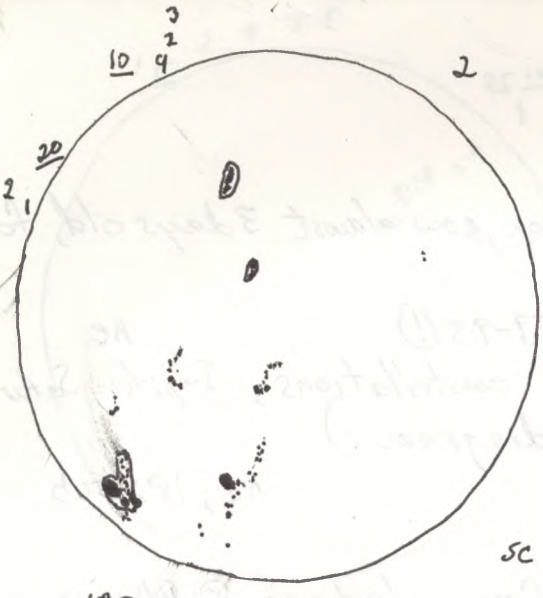
18x50 15 b: M42, area of Pyxis, but area of T Pyxidis was among the trees, R Leonis - about mag. 6.

02:10 - 03:00 y S-8(?) T7 (some cloud) (cml) ne; ~~18x~~ Camera's 35-105mm f/3.5 lens

ne: I observed some stars and constellations. There were some light clouds. I took several photographs of the E. sky.

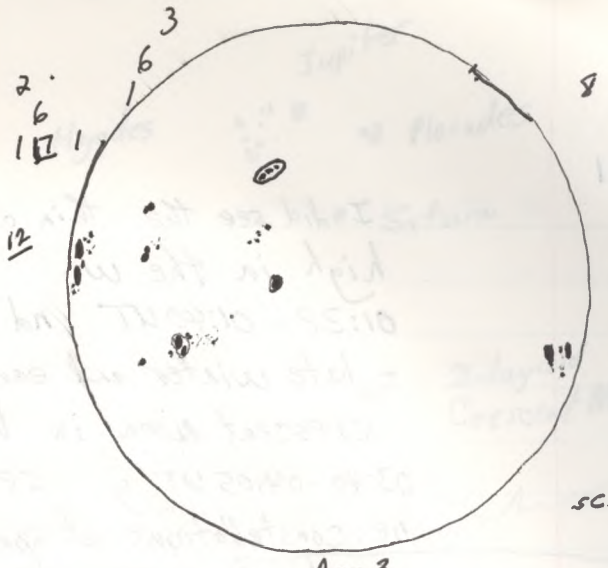
m 10:25 - 11:00 UT sh twl ne; 18x50 15 b

Hoping to see Venus in the morning twilight, after having seen it in the evening twilight, I went down to the dock and observed both naked-eye and with the 18x50 15 b, but I was frustrated by persistent clouds in the E. I scanned the area of sky above the horizon persistently, but did not manage to see Venus. I also took several photographs of the area of sky where I hoped to see Venus.



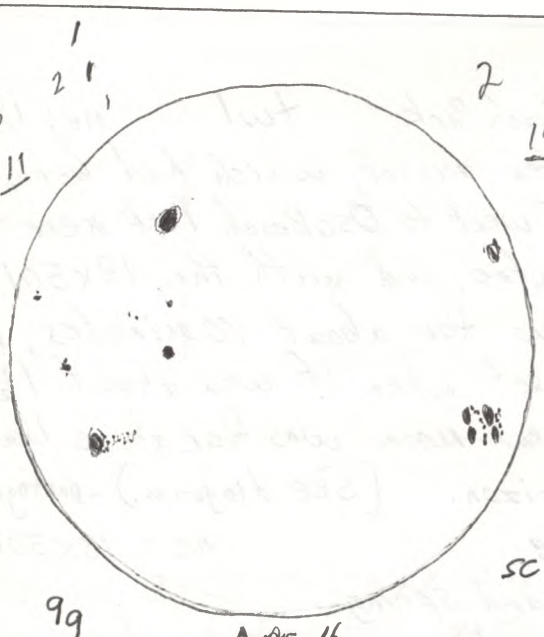
10g
78s
RSN 173

Apr. 2
17:20-17:25 UT



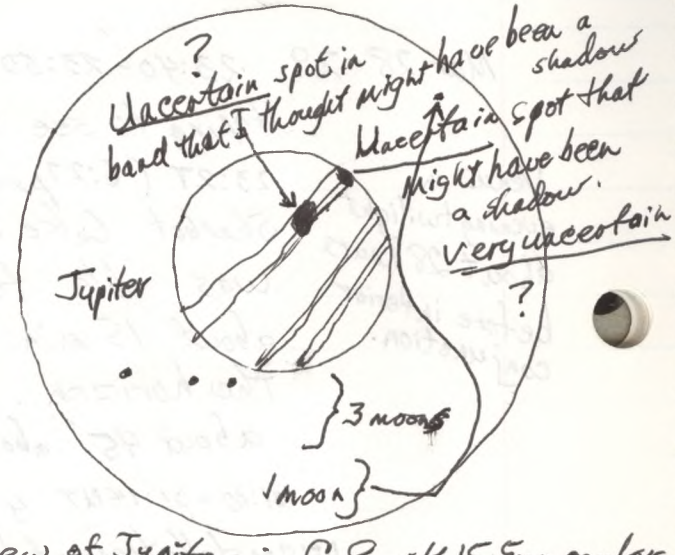
10g
57s
RSN 157

Apr. 3
16:35-16:40 UT

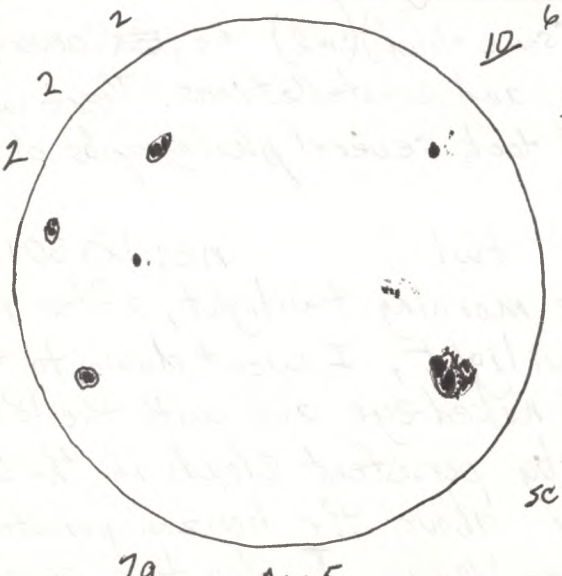


9g
37s
RSN 127

Apr. 4
16:00-16:05 UT



View of Jupiter in C-8 with 15.5mm ocular at 129X (also viewed at 167X and 105X) at 02:50 UT on Apr. 4 - UNCERTAIN of seeing the Double Shadow Transit of the shadows of Europa and Ganymede. What was seen may have been only darker areas of the bands.



7g
43s
RSN 113

Apr. 5
14:55-15:00 UT

2001

M. Apr. 2 17:20-17:25 UT t — C-8, 32
sun 10g 73S RSN173 — T.O.F.

Tu. Apr. 3 16:35-16:40 UT t — C-8, 32
sun 10g 57S RSN157 — T.O.F.

Tu.-W. Apr. 3-4 02:40-03:30 UT nd S8(?) T6-gibbous moonlight — ne; c-8, 15.5, 12, 19

ne: bright stars; hint of very faint aurora in N, perhaps would have been better except for the moonlight.

C-8: Jupiter and 4 moons - looking especially for the "Double Shadow Transit" - listed as beginning at 02:48 UT (Europa had already made a transit:- "22:18: II Tr.I, 0:56: II Tr.E and its shadow had begun to cross~~ed~~ before its transit had ended: 0:25: II Sh.I. and this shadow would end its crossing during the observing session: "3:03 II Sh.E." 15 minutes before this shadow crossing ended, the shadow of Ganymede would begin crossing the disk: "2:48 III Sh I". This shadow crossing would end much later: "5:09 III Sh E" So, for 15 minutes, it should have been possible to observe the "Double Shadow Transit." Because of the planet being fairly low and in or near the trees in the W, I found it difficult to observe the event. Bright moonlight also did not help. I briefly thought I might have seen one of the shadows, or even two, but was not certain of it. (See diagram.)

Possible Double shadow Transit of Jovian Moons II and III from 02:48 UT to 03:03 UT

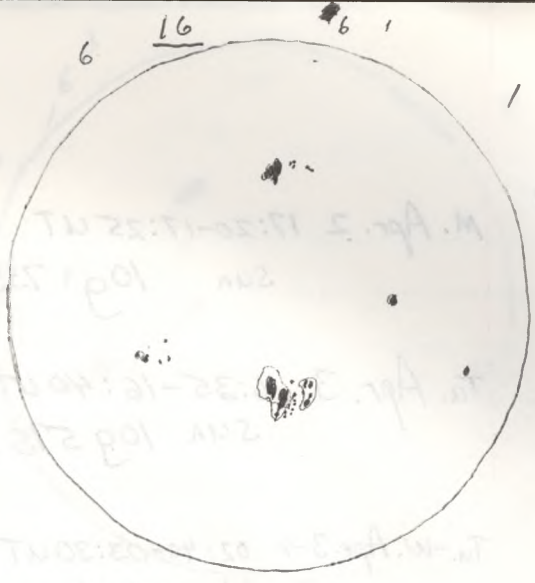
W. Apr. 4 16:00-16:05 UT t — C-8, 32
sun 9g 37s RSN127 — T.O.F.

Th. Apr. 5 14:55-15:00 UT t — C-8, 32
sun 7g 43S RSN113 — T.O.F.

Th.-F. Apr. 5-6 23:25-00:30 UT 00 ~~S8(?)~~ twl — C-14, 40-2
- craters and maria on the gibbous moon during twilight

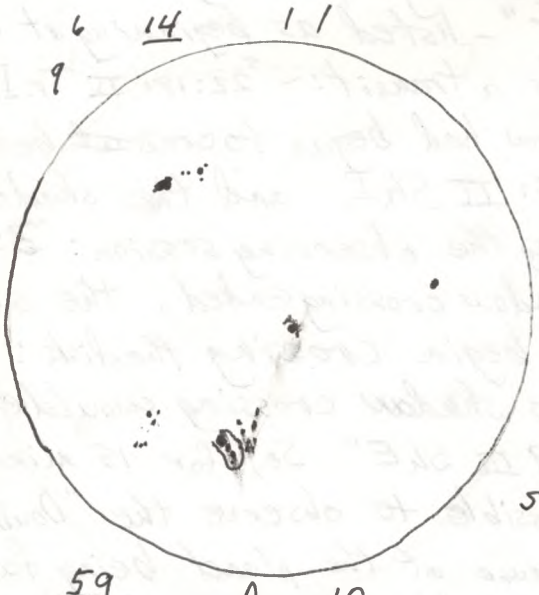
6g
37s
RSN 97

Apr. 8
18:15-18:20 UT



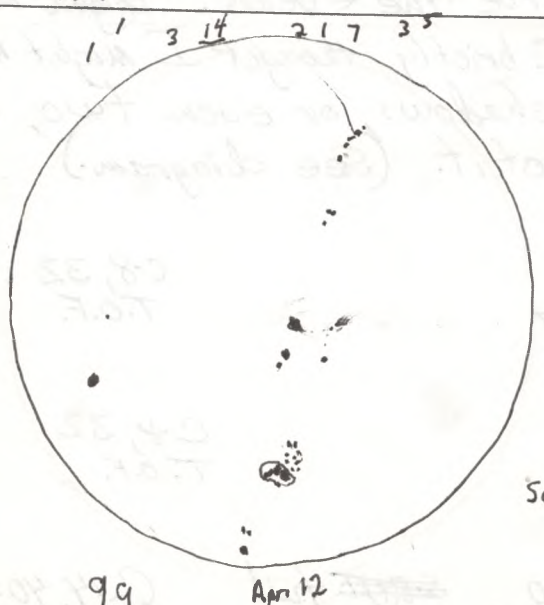
5g
30s
RSN 80

Apr. 9
14:25-14:30 UT



5g
31s
RSN 81

Apr. 10
16:00-16:05 UT



9g
37s
RSN 127

Apr 12
19:55-20:00 UT

and, in fact, at the beginning of the session before sunset, though there was considerable cloud in the W. also Jupiter and 4 moons - still high in the WNW.
01:15 - 02:45 UT 00 S-8(?) T 5 (gm l, some cloud) 18x50 15b; C-14,40
-18x50 15b: looked in area E. of star Saif for Comet Linear, but did not knowingly see it, probably because of very bright moonlight and some cloud in the area.
C-14,40-2: Jupiter and 4 moons; lunar craters and maria - moon now very bright.

Su. Apr. 8 18:15 - 18:20 UT t C-8,32
sun 6g 37s RSN 97 T.O.F.

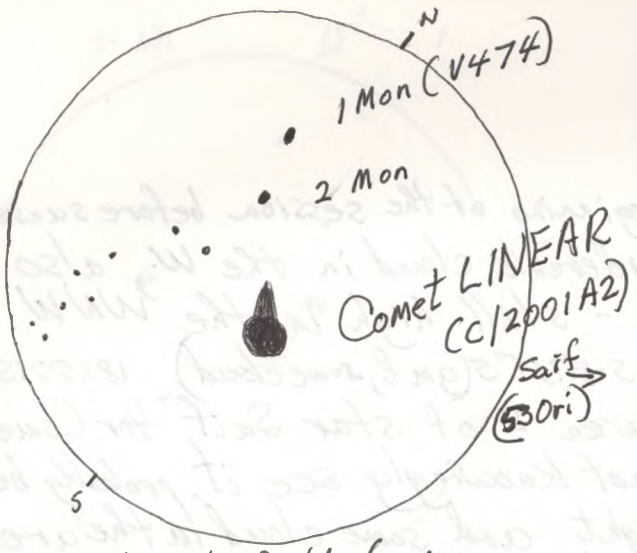
Su.-M. Apr. 8-9 03:38 - 03:40 UT nd ful. 1e
- bright stars; some glow in N. that might have been auroral.

M. Apr. 9 14:25 - 14:30 UT t C-8,32
sun 5g 30s RSN 80 T.O.F.

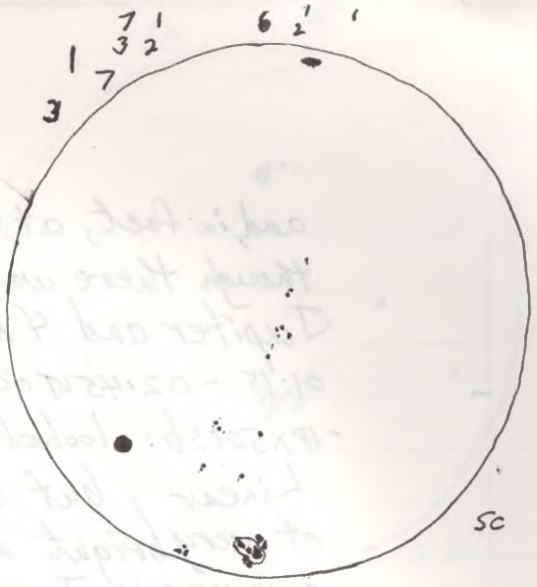
M.-T. Apr. 9-10 00:40 - 01:15 UT y twl ne; 18x50 15b
ne: Jupiter and Saturn in W., bright stars of Orion and other late winter and spring constellations
18x50 15b: M41, M42, Jupiter and at least 2 or 3 moons, Saturn, Hyades, area of sky "between Saif and Sirius - hoping possibly to spot Comet LINEAR which in the last week or so had been in that area, but did not knowingly see it. Clouds moved in at, or near, the end of the session.

T. Apr. 10 16:00 - 16:05 UT t C-8,32
sun 5g 31s RSN 81

Th.. Apr. 12 19:55 - 20:00 UT t C-8,32
Sun 9g 37s RSN 127 T.O.F.

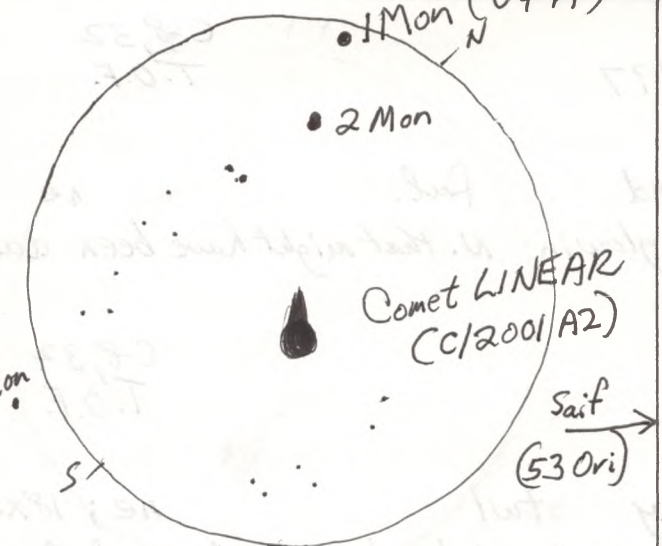


20×100 binocular field showing
Comet LINEAR (C/2001 A2)
Apr. 13 01:23 UT at R.A 5h58.m2 Dec -10°09'

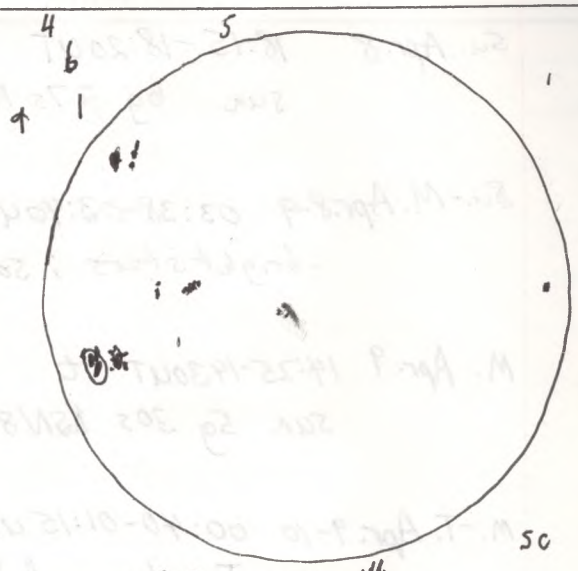


11g
34s
RSN 144

Apr. 13
21:10-21:15 UT



20×100 binocular view of Comet LINEAR
(C/2001 A2) Apr. 14 01:20 UT



6g
26s
RSN 86

Apr. 14
14:10-14:15 UT

2001

Th.-F. Apr. 12-13 01:23- UT y near end of ast. twl.; then S8, T9 20x100b.
- M42; Comet LINEAR (C/2001A2) E. of χ Orionis and near
Comet Linear (C/2001A2) the stars 1 Mon and 2 Mon (See U271) (See MSA301)
It was about mag. 7.9 in constellation Monoceros at
M35 R.A 5h 58.2m Dec. -10° 09'; M35
R Leo R Leonis - bright about mag 6.5, R Corvi (see U328) - somewhat faint - about
R Cor mag. 8.5.; S Hydrae, near "head of Hydra" (see U232) about
S Hyd mag. 8.2; T Ursae Majoris (see U48) at about mag. 8.0; and
T UMa nearby RS UMa (see U48 also) faint at about mag 10.0 (Burnhams
RS UMa p. 1927): LPV Var: 8.4-14.. and period of 260 days.)

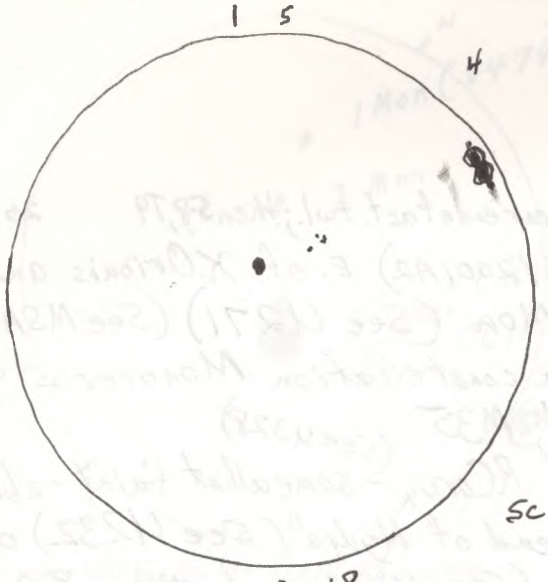
F. Apr. 13 21:10-21:15 UT t C-8, 32
Sun 11g 34S RSN144 T.O.F.

F.-S. Apr. 13-14 01:20-02:35 UT y S8 T9 ne; 20x100b.
ne: Jupiter, Saturn, Constellations; glow in N. almost certainly
Auroral, with hints of vertical band slightly reddish in
colour

20x100b: belt stars of Orion and area; M42; Comet LINEAR (C/2001 A2)
Comet LINEAR (C/2001A2) slightly S. from where it was seen the previous night
(See U271) at about mag. 7.8 at R.A 5h 55.9,
Dec. -10° 20' (see diagram.) Luckily I was able
to see it between two trees in the W. sky, very
near to the time of the end of astronomical twilight.
R Leonis M35, M36, M37, M38, M13, M57; R Leonis - bright at
R Corvi about mag. 6.5; R Corvi - quite faint at about mag. 9;
T CorBor T CorBor; R CorBor at about mag. 8.; Double Cluster in
R CorBor Perseus.

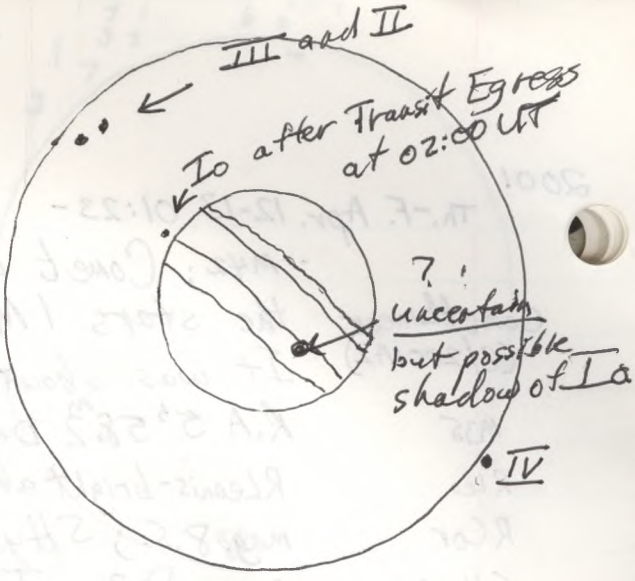
Sa. Apr. 14 14:10-14:15 UT t C-8, 32
Sun 6g 26S RSN86 T.O.F.

T.-W. Apr. 17-18 00:30 - 01:00 UT in Mountain Grove outside Public School twl ne
- After giving astronomy talk and slide show to Cub (and some Beavers)
group, I had an observing session with a group of the boys and



3g
10S
RSN40

Apr. 18
16:40-16:45UT



View of Jupiter using C-14, 15.5mm ocular.
Apr. 19 02:16 UT

2001

two of their leaders, Ilona (Reinecke) Cox and Scott Cox. In the twilight we saw Jupiter and Saturn and the brighter stars come into view - stars such as Betelgeuse, Sirius, Rigel, Procyon, Aldebaran, Castor and Pollux, Regulus and others. I showed them how to use a star map.

02:15-02:20 UT nd 5-8(?)T9 ne

Aurora There was a bright glow in the N. and a fairly thick arc up about 45° and going from NW to NE.

03:41-03:42 UT nd ne

On checking again before going to bed I saw that the Aurora was continuing and increasing in intensity with almost the whole northern half of the sky filled with Aurora. There was considerable "flaming" and pulsation. However there was not much colour. It was up almost to the zenith.

m. (04:46 a.m. E.D.T.) 08:46 UT in twl ne

On looking out during the early part of morning twilight (B.A.T. was at 08:32 UT), I saw Mars in the S. and the waning crescent moon low in the SE.

W. Apr. 18 16:40-16:45 UT t C-8, 32
T.O.F.

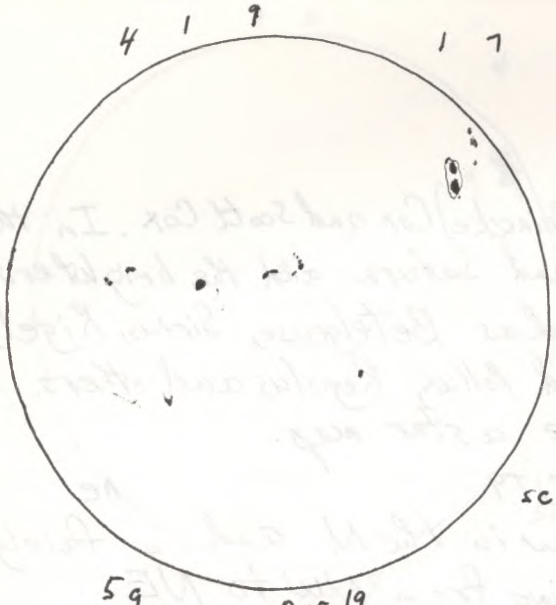
Sun 3g 10s RSN 40

W.-Th. Apr. 18-19 00:20-03:10 UT 00 S8T9 ne; 20x100b; C-14, 19, 15.5

ne: Jupiter, Saturn in W. bright stars; 3 fairly bright meteors; possible brightness in N. at times that may possibly have been Aurora?

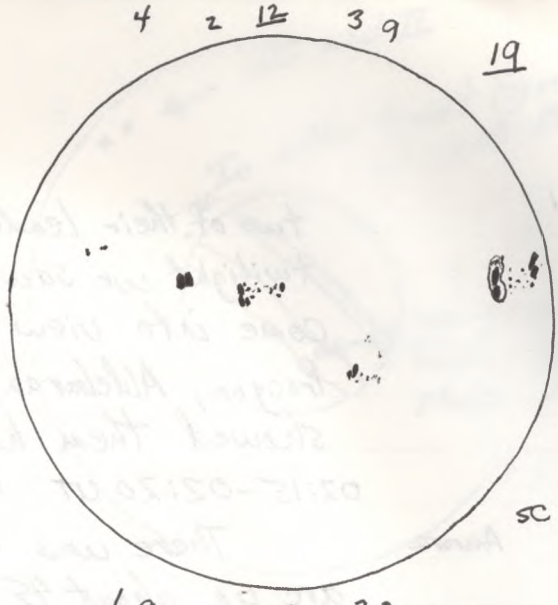
20x100b: area of the sword of Orion, R Corvi, M35, M36, M37, M38, area of σ Her, M13, R Corvi which was about mag. 8.5, Rheods - still bright at about mag. 6.0., M44, T Cor Bor and area (star about mag. 11.0), R Cor Bor and area,

C-14, 19 and 15.5: planet Jupiter and 3 of its moons, the 4th of the Galilean moons being seen after the Transit Egress of Io which occurred at 2:00 UT according to O.H., but it was not seen until about 2:16 UT, perhaps because the planet



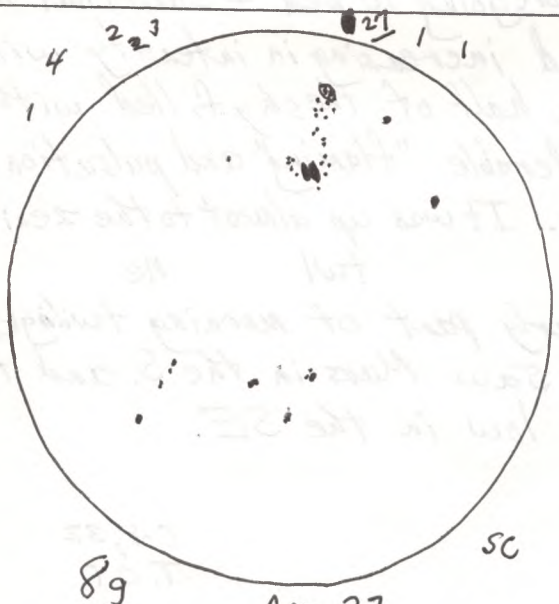
5g
22s
RSN72

Apr. 19
16:30-16:35UT



6g
49s
RSN109

Apr. 20
14:50-14:55UT



8g
40s
RSN128

Apr. 22
18:20-18:25UT

2001

was getting low in the W. and the planet was very bright.
(3:40 – 4:10 a.m. E.D.T.)

M. 07:40-08:10 UT sh and y S8(?)T9.5! ne

I got up and, under very good observing conditions, photographed Mars in the S. near the bright stars of Scorpius, and also Sagittarius, and the area of the Summer Triangle

Th. Apr. 19 16:30-16:35 UT t C-8, 32
Sun 5g 22s RSN72 T.O.F.

Th.-F. Apr. 19-20 01:55-02:00 y S-8(?)T9-9.5 ne

- looked for the International Space Station, which I thought was supposed to pass within sight at 01:55 UT, but I did not see it. Denise and I saw a very bright meteor low in the N. going from right to left in the area of the constellation Cassiopeia.

F. Apr. 20 14:50-14:55 UT t C-8, 32
Sun 6g 49s RSN109 T.O.F.

Su. Apr. 22 18:20-18:25 UT t C-8, 32
Sun 8g ~~4s~~ RSN121 T.O.F.

Su.-M. Apr. 22-23 02:20-02:50 UT nd S-8(?)T 6-8(some cloud) ne

- observed Aurora glow in N. from NW to NE up 30° and perhaps more, with some periodic hints of pinkish colouring. - hoped to see, possibly, a few Lyrid meteors which were to have peaked the previous evening at local midnight (Apr. 21-22 at 4h UT), but did not see, with certainty any Lyrids. Clouds moved in the northern part of the sky near the end of the observing session.

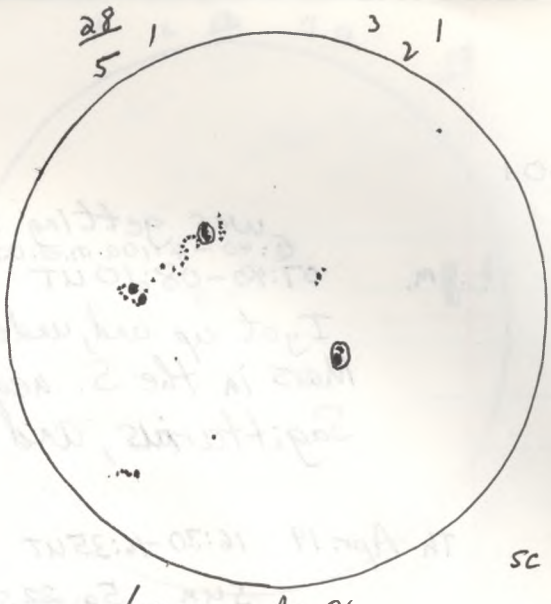
Aurora.

M.-T. Apr. 23-24 02:20-02:50 UT nd S8(?)T7-8(haze; some cloud) 18x50 ISb

- Double Cluster, M35, M36, M37, M38, δ Cephei and area, μ Cephei and area, R Leonis and area, R Corvi and area, M13, R Cor Bor and

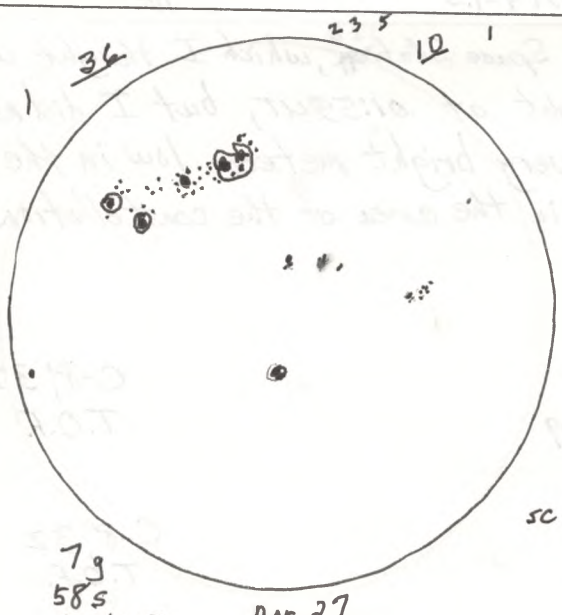
5 g
57 s
RSN107

Apr. 25
16:25-16:30 UT



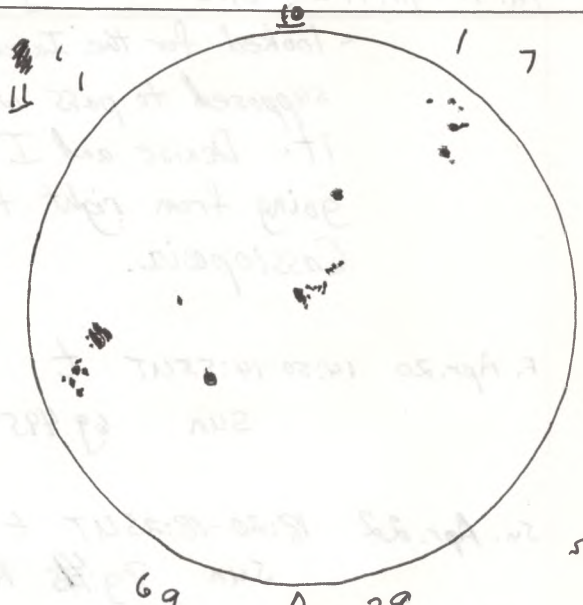
6 g
40 s
RSN100

Apr. 26
17:05-17:10 UT



7 g
58 s
RSN128

Apr. 27
14:25-14:30 UT



6 g
31 s
RSN91

Apr. 29
17:00-17:05 UT

area, Alcor and Mizar and area.

T.-W. Apr. 24-25 03:05-03:30 UT nd andy S8T9-9.5! ne; 18x50 15b
ne: constellations; glow in N. that may have been Auroral, with hints of pinkish colouring up as high as 45°.
18x50 15b: areas of Per and Cas, M36, M37, M38, M35, M13, area of R Corvi, R Leonis (still bright at about mag. 6.8), ε Lyrae, M57 and area, "head of Hydra" area, areas of Cepheus.

Apr. 25 16:25-16:30 UT t C-8, 32
sun 5g 57s RSN 107 T.O.F.

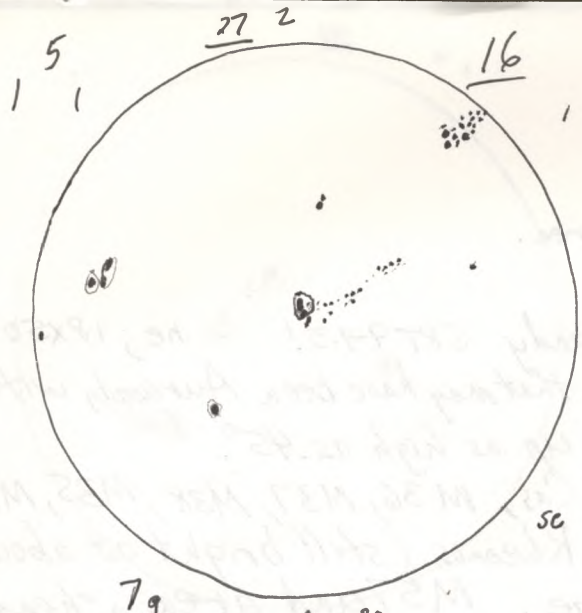
W.-Th. Apr. 25-26 03:10-03:45 UT nd andy S-8(?)T9 ne; 18x50 15b
ne: constellations; glow in N. that may have been Auroral with a hint of reddish colouring
18x50 15b: M35, M36, M37, M38, Double Cluster in Per, areas in Cep and Cas, R Corvi and area, R Leonis and area (star very bright at mag. about 6-8.

Th. Apr. 26 17:05-17:10 UT t C-8, 32
sun 6g 40s RSN 100 T.O.F.

F. Apr. 27 14:25-14:30 UT t C-8, 32
sun 7g 58s RSN 128 T.O.F.

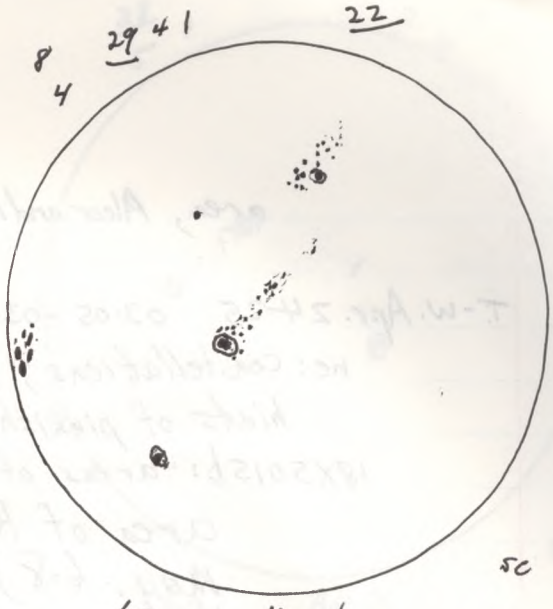
F.-S. Apr. 27-28 03:05-03:10 UT y S8(?)T8-9 (cr. moon) ne
- constellations, bright cr moon 4 days 12 hours old in WNW.

S.-S. Apr. 28-29 00:00-02:00 UT Kingston City Park, near Murney Tower tw1 (until 01:57 UT) Ast, 19, 8
- After a good Astronomy Day Mall Display at Cataraqui Town Centre, a group of Kingston Centre members, including Susan Gagnon, Don Mastrianni, Tom Dean, Kevin Kell, Kim Hay, and perhaps a few others went to City Park, near the Murney Tower to show some objects to the public



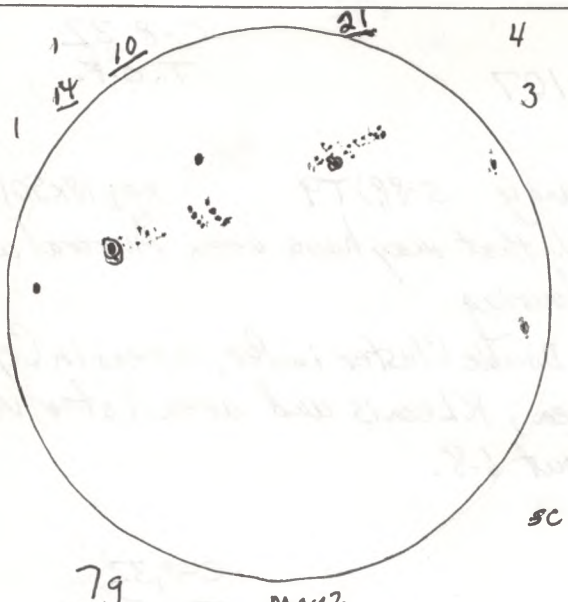
7g
53s
RSN 123

Apr. 30
16:45-16:50UT



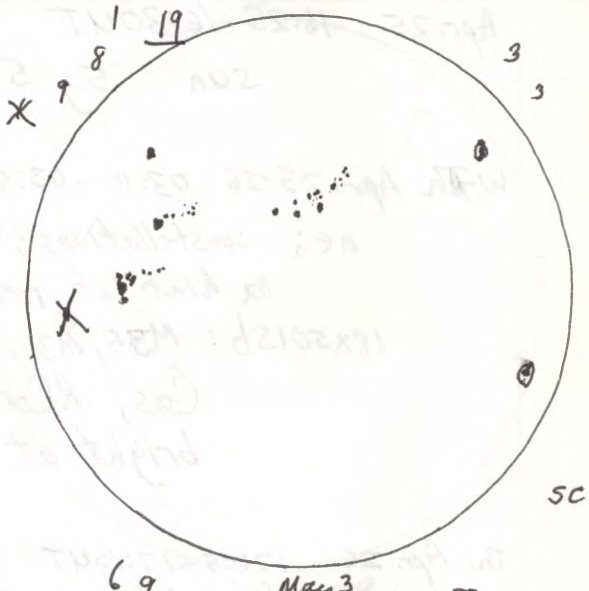
6g
68s
RSN 128

May 1
16:35-16:40UT



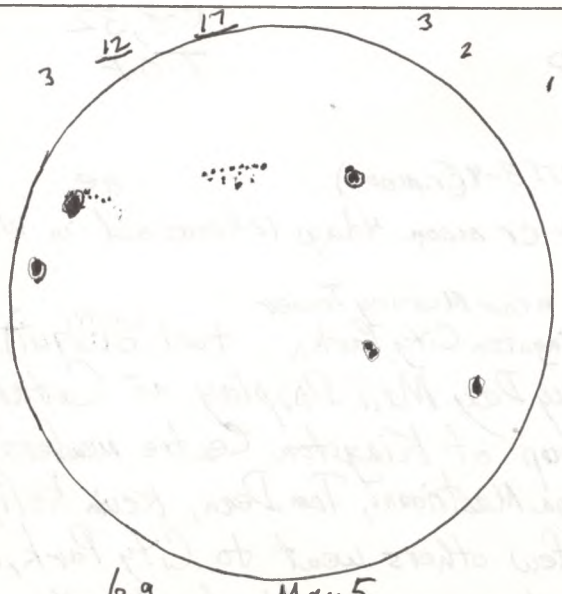
7g
54s
RSN 124

May 2
14:30-14:35UT



6g
43s
RSN 103

May 3
15:35-15:40UT



6g
38s
RSN 98

May 5
14:55-15:00UT

2001

There were several telescopes including the Centre's 10" telescope. It seemed that most of them were directed to the moon and Jupiter.
I saw lunar craters, Jupiter and 3 moons, ζ CnU (Cor Caroli) which was split beautifully, Alcor and Mizar and Sidus Ludovici with Mizar split beautifully. Those were the objects that I showed the members of the public who came to the area of my telescope.

Overall, it had been a good Astronomy Day, with many people visiting our displays at the Cataraqui Town Centre, and good weather for the observations of sunspots, lunar craters, and the planet Venus at the Town Centre during the day and other objects in the evening twilight at City Park.

Su. Apr. 29 17:00-17:05 UT t C-8, 32
sun 6g 31s RSN91 T.O.F.

M. Apr. 30 16:45-16:50 UT t C-8, 32
sun 7g 53s RSN 123 T.O.F.

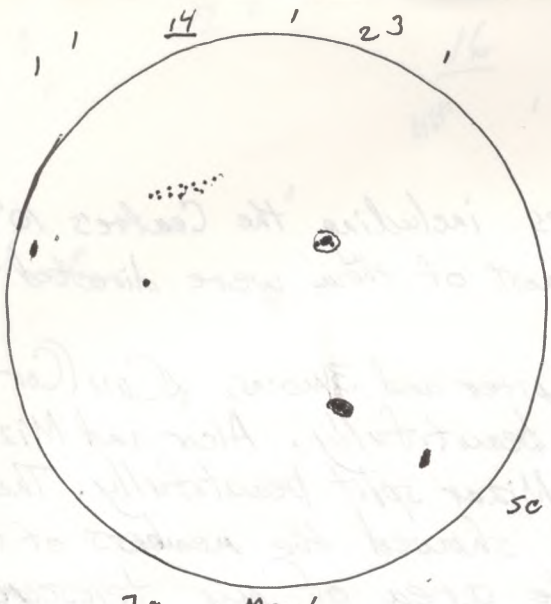
Tu. May 1 16:35-16:40 UT t C-8, 32
sun 6g 68s RSN128 T.O.F.

T.-W. May 1-2 02:20-02:30 UT nd gml. ne
- observed bright stars in northern sky under a very bright gibbous moon high in the sky.

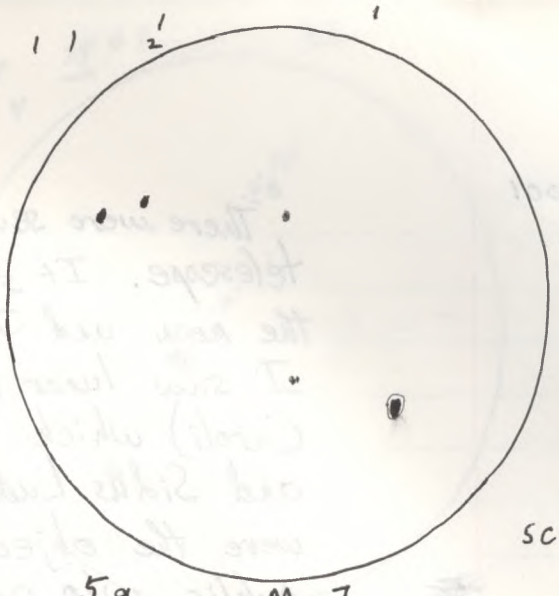
W. May 2 14:30-14:35 UT t C-8, 32
sun 7g 54s RSN124 T.O.F

Th. May 3 15:35-15:40 UT t C-8, 32
sun 6g 43s RSN103 T.O.F.

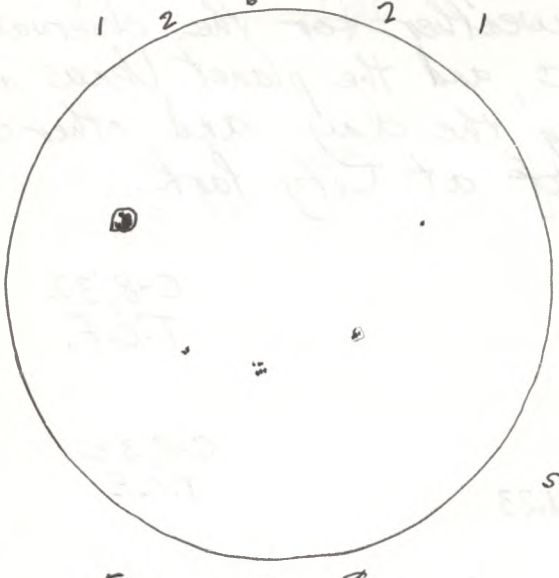
Sa. May 5 14:55-15:00 UT t C-8, 32
sun 6g 38s RSN98 T.O.F.



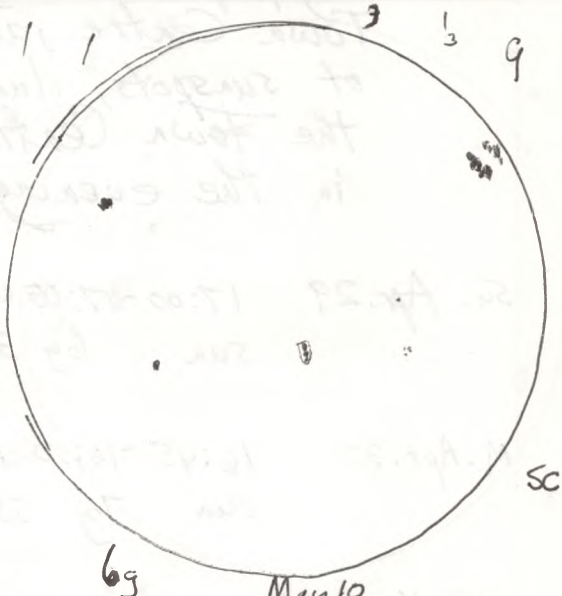
7g May 6
23S 14:15-14:20UT
RSN 93



5g May 7
6S 14:55-15:00UT
RSN 56



5g May 8
12S 17:10-17:15UT
RSN 62



6g May 10
18S 16:35-16:40UT
RSN 78

2001

Su. May 6 14:15-14:20 UT t C-8, 32
sun 7g 23s RSN93 T. O.F.

S.-M. May 6-7 01:50-01:55 UT nd twl; ful ne
-observed the bright stars in the N and W parts of the sky, and Jupiter among the branches of a tree, low in the WNW.

M. May 7 14:55-15:00 UT t C-8, 32
sun g s RSN T. O.F.

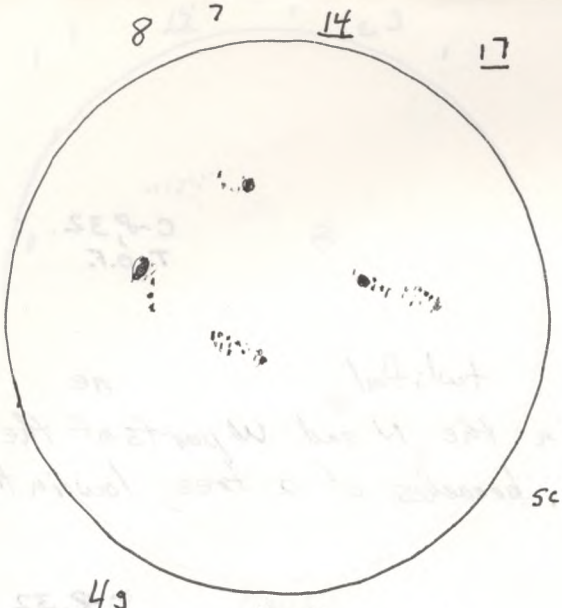
M.-T. May 7-8 02:30-02:55 UT nd ful ne
-observed the bright stars in the W, N, and NE parts of the sky.

W. May 9 17:10-17:15 UT t C-8, 32
sun 5g 12s RSN62 T. O.F.

W.-Th. May 9-10 00:30-01:50 UT Gould Lake Conservation Area twl ne
After conducting a tour of Holleford Crater for Dieter Brueckner's class of about 22 students, I went with them to the Gould Lake Conservation Area for their campfire and picnic lunch. We watched as Jupiter and the brighter stars appeared: Procyon, Castor and Pollux, Capella, Arcturus, Spica, Regulus, the stars of the Big Dipper and others. The students set up 4 Stargazer Steve Telescopes, and some of them looked at Jupiter and other objects.

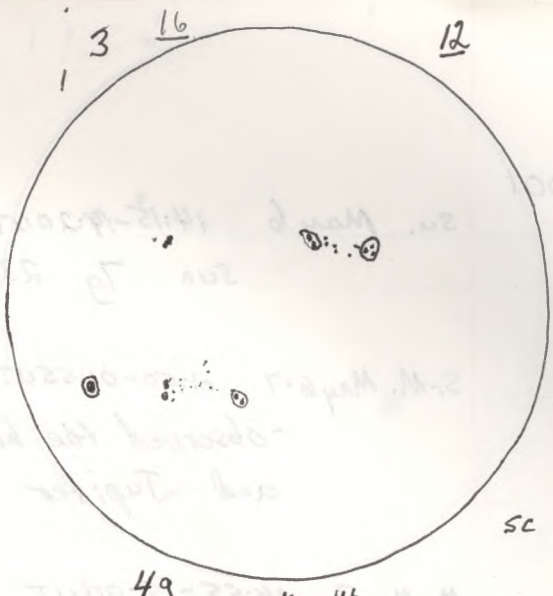
Th. May 10 16:35-16:40 UT t C-8, 32
sun 6g 18s RSN78 T. O.F.

Th.-F. May 10-11 01:30-03:35 UT 00 SST 7-9 (cloud or haze / intermittent light) ne; 20x100b.
ne: bright stars, one "short" meteor in W., perhaps slight glow that could have been auroral
20x100b: R Leonis (about mag. 7) M65 and M66 in Leo, R Corvi (quite faint at about mag 8.5) SS Vir (at about mag. 7) T Her (at about mag. 9) (M116), nearby loose open cluster



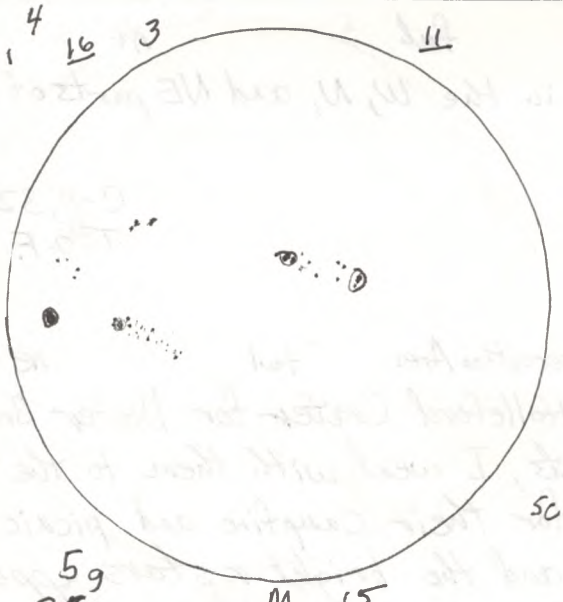
49
465
RSN86

May 13
14:45-14:50 UT



49
325
RSN 72

May 14
15:~~05~~ -15:10 UT



59
~~35~~ 35
RSN85

May 15
~~15~~ 15:05-15:10 UT

2001.

designated as DoDz9 on U116, M57, ε Lyrae

Sa-Su. May 12-13 03:10-03:30 UT nd and y S-8 T 8-9 ne; 18x50 15b

ne: bright stars; glow in N that was probably auroral - up to about 40° in the area of Polaris

18x50 15b: M57, areas of Lyra, areas of Cygnus, area of R Leonis.

Su. May 13 14:45-14:50 UT t C-8, 32
T.O.F.

sun 4g 46s RSN86

S.-M. May 13-14 03:15-03:45 UT nd+y S~~7~~-8 T 3-7 (some cloud) ne; 18x50 15b

ne: bright stars; glow in N up to about 30° above horiza - probably Auroral

18x50 15b: area of R Leonis and other areas of Leo, M57 and other areas of Lyra, areas of Her including M13, areas of Cas and Cep.

05:30-05:40 UT y S-7-8(?) T 8-9 ne

- observed and photographed Mars among the stars in the S. Sky

M. May 14 15:05-15:10 UT t C-8, 32
T.O.F.

sun 4g 32s RSN72

M.-T. May 14-15 03:30-04:00 UT nd and y S-8(?) T 9 ne; 18x50 15b

ne: bright stars

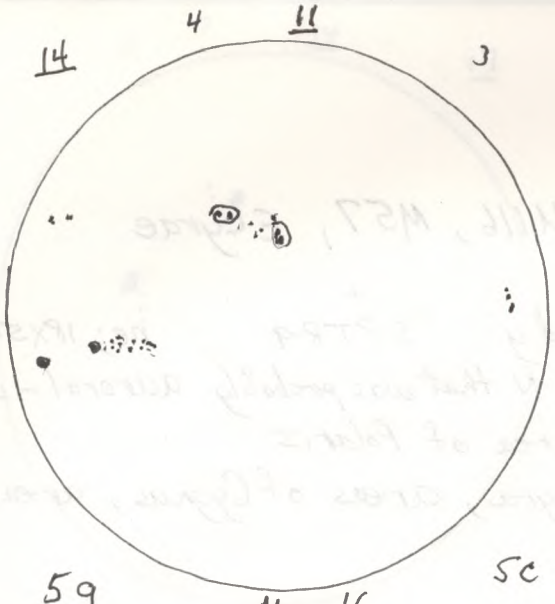
18x50 15b: R Corvi and area, R Leonis and area, areas of Cas, Cep, Cyg, Leo, Vir, M65 and M66, M4 in Sco., T CorBor and R CorBor, M13 and areas in Her.

06:20-06:30 UT y S7-8(?) T 9-9.5 ne

- observed and photographed Mars among the stars in the S. sky.

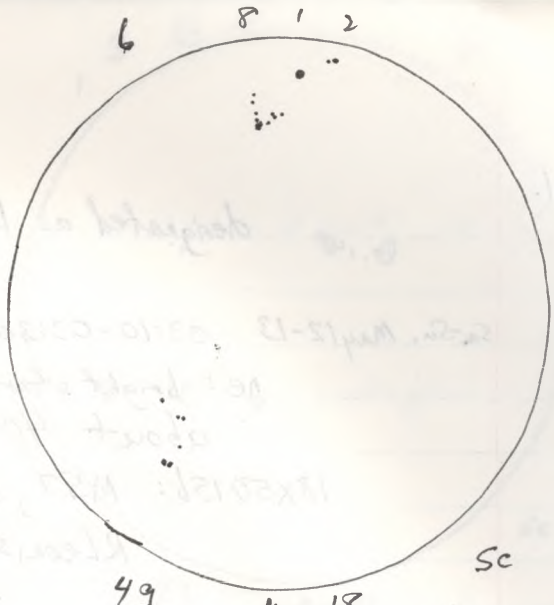
Tu. May 15 15:05-15:10 UT t C-8, 32
T.O.F.

sun 5g 35s RSN85



59
33S
RSN83

May 16
15:10-15:15 UT

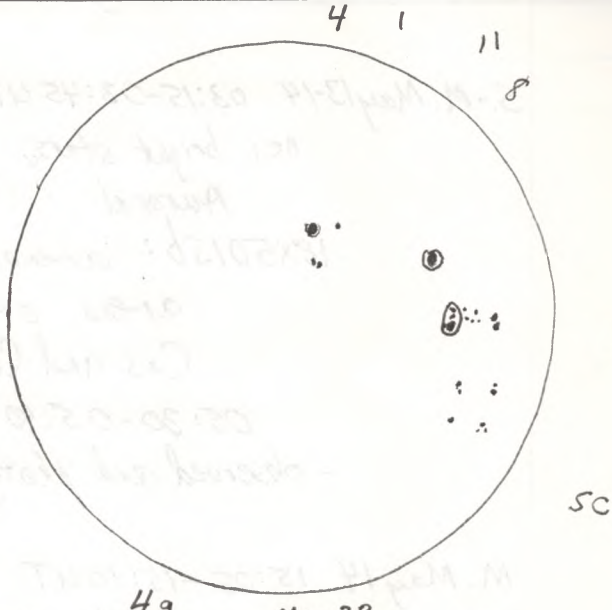


49
17S
RSN57

May 18
21:30-21:35 UT

39
17S
RSN47

May 19
15:05-15:10 UT



49
24S
RSN64

May 20
14:45-14:50 UT

2001

T.-W. May 15-16 06:00-06:15 UT y S8T9 ne
-observed and photographed Mars among stars in S. sky.

W. May 16 15:10-15:15 UT t C-8, 32
sun 5g 33s RSN83 T.O.F.

W.-Th. May 16-17 01:30-02:30 Gould Lake Conservation Area S-8(?)T4-6 (partly cloudy) ne
After giving a tour of the Holleford Crater to Dieter Brueckner and Christine Kulyk and her sister-in-law, we went to the Gould Lake Conservation Area for a campfire, hotdogs, and a chance to observe the sky. Because of weather that was partly cloudy we saw some stars in some areas of the sky. Some of the students used, or tried to use several of the Stargazer Steve Telescopes which they had brought.

F. May 18 21:30-21:35 UT t C-8, 32
sun g s RSN T.O.F.

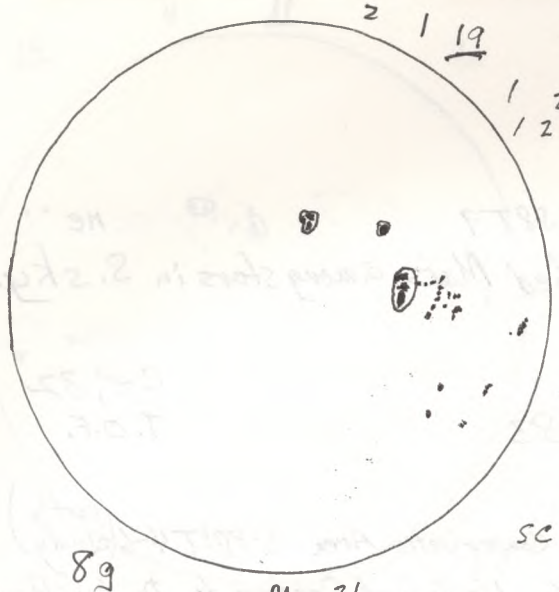
F.-S. May 18-19 03:29-03:30 UT nd S-8(?)T9 ne
-observed bright stars and Aurora in N. apparently beginning to be active with a vertical band up about 40°. On checking later I did not find it active.

Sa. May 19 15:05-15:10 UT t C-8, 32
Sun 3g 17s RSN 47 T.O.F.

Sa.-Su. May 19-20 03:15-03:25 UT nd and y S-8-9 T8-9 ne
- observed bright stars and spring constellations. -noted the brightness of δ Sco which for about 8 or 10 months has continued to be brighter than usual.

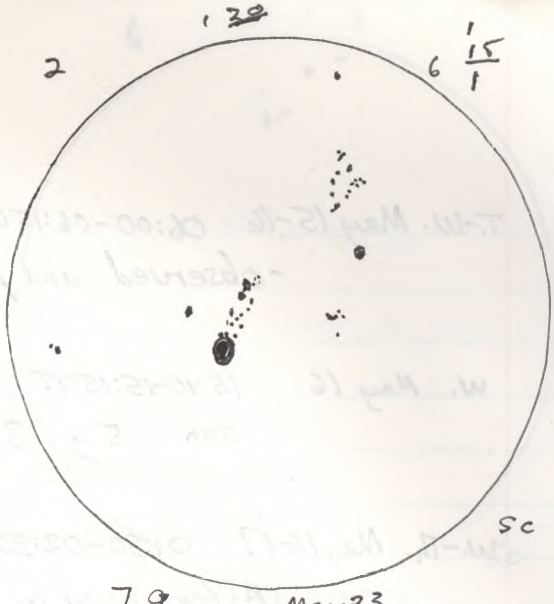
Su. May 20 14:45-14:50 UT t C-8, 32
sun 4g 24s RSN 64 T.O.F.

S.-M. May 20-21 01:00-01:35 UT y twl (some cloud) ne
-observed as bright stars began to appear: Arcturus, Spica,



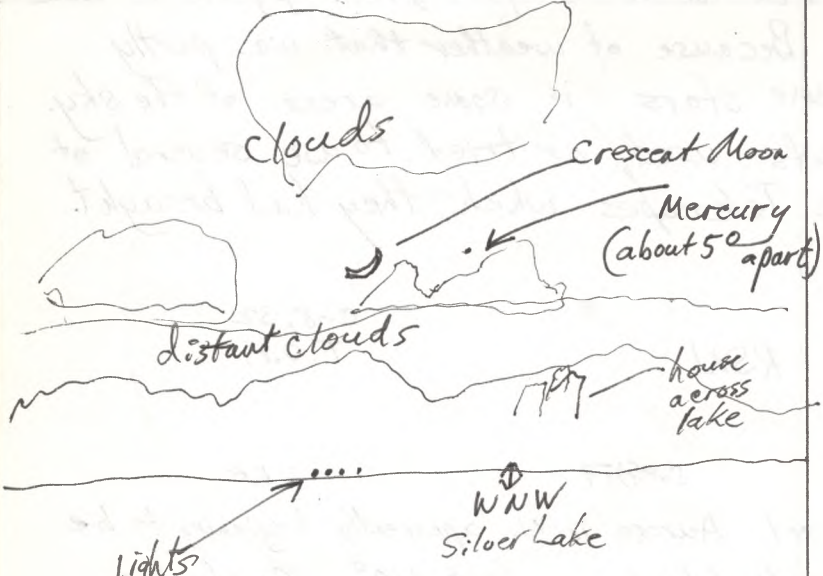
8g
31s
RSN111

May 21
14:30-14:35UT

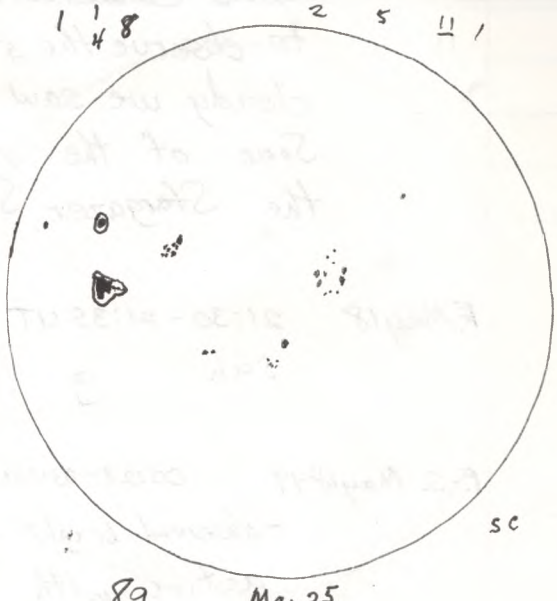


7g
46s
RSN116

May 23
19:20-19:25UT

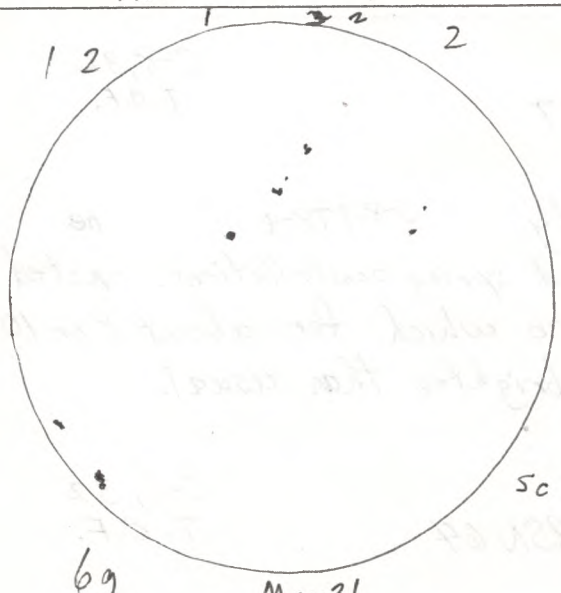


May 24-25 01:40UT View to the WNW across Silver Lake



8g
33s
RSN113

May 25



6g
11s
RSN71

May 31
19:00-19:05UT

2001

Regulus, Vega, Procyon.

M. May 21 14:30-14:35 UT t C-8, 32
sun 8g 31s RSN 111 T.O.F.

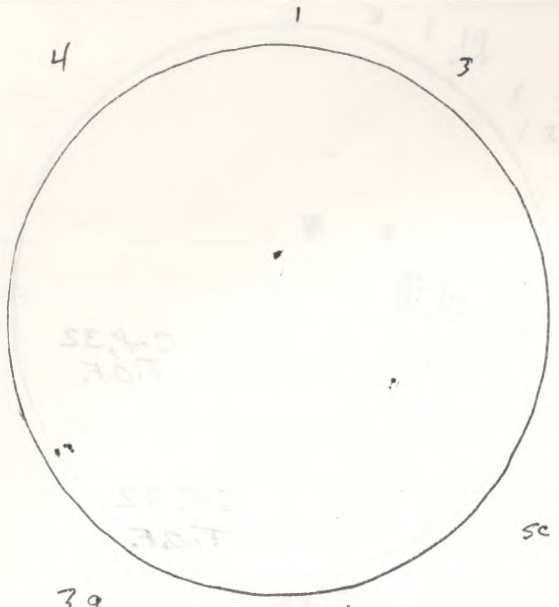
W. May 23 19:20-19:25 UT t C-8, 32
sun 7g 46s RSN 116 T.O.F.

W.-Th. May 23-24 00:00-02:00 UT 00 before sunset and during twl ne
- I cleaned the observatory of some bird droppings since one or several birds had been in the observatory in spite of my efforts to plug some of the holes in the corners with pieces of sponge rubber. Sitting in the observatory and on the north deck, I saw a few bright stars in the twilight - Arcturus, Spica, Capella, three stars in the handle of the Big Dipper, and Castor and Pollux.

Th.-F. May 24-25 00:45-02:00 UT Silver Lake M.T.C. Rest Stop at twl ne; 18X50 LSb
I drove to Silver Lake Rest Area hoping to see and photograph the crescent moon and Mercury. I arrived about 00:45 UT, about 20 minutes after sunset which had been at about 00:24 UT. I first saw the crescent moon at about 01:01 UT and soon saw Mercury with the 18X50 LSb at about 01:10 UT. Eventually at about 1:40 UT the clouds had moved enough for both the moon and Mercury to be visible in the binoculars and naked-eye. They were about 5° apart
I photographed the area of both the moon and Mercury in one field with the 135mm lens.

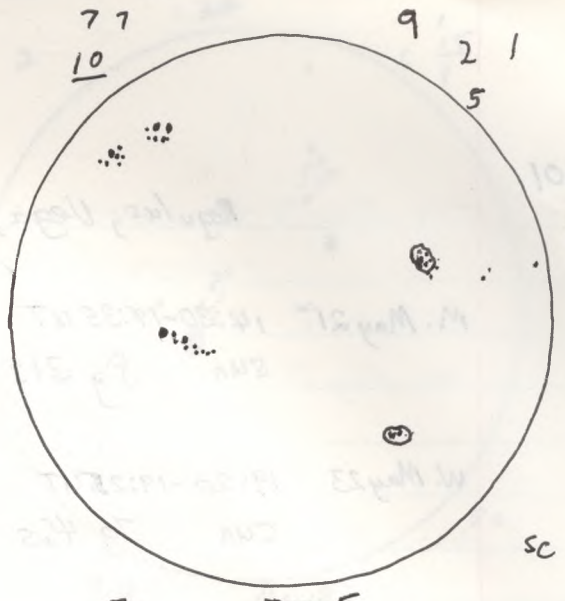
F. May 25 16:05-16:10 UT t C-8, 32
sun 8g 33s RSN 113 T.O.F.

Th. May 31 19:00-19:05 UT t C-8, 32
sun 6g 11s RSN 71



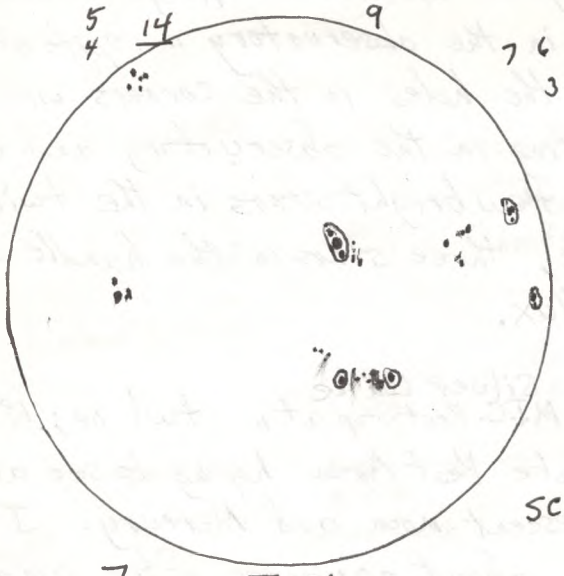
39
8S
RSN38

June 1
15:30-15:35 UT



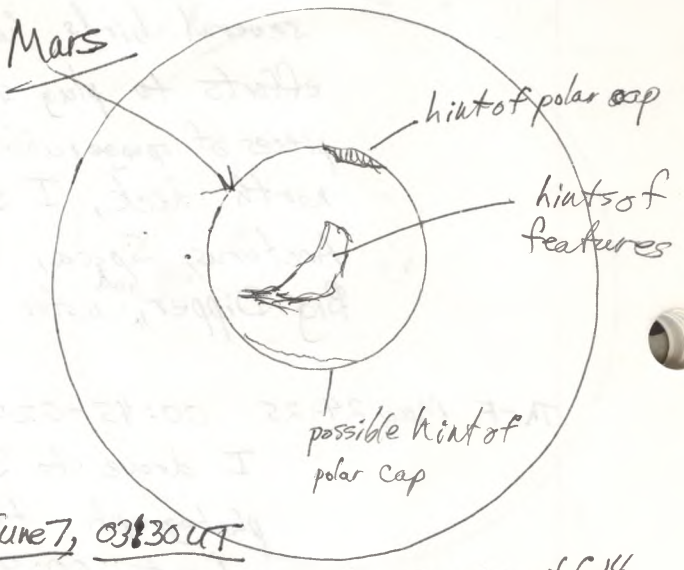
79
41S
RSN111

June 5
15:50-15:55 UT



79
48S
RSN118

June 6
16:05-16:10 UT



June 7, 03:30 UT

Mars as seen in eyepice of C-14 about 7 days before opposition

2001. F. June 1 15:30-15:35 UT t C-8, 32

sun 3g 8s RSN38

Sa.-Su. June 2-3 00:00-02:00 UT O'Reilly Lake Campgrounds cloudy ne

On the invitation of Ilona (Reinecke) Cox, the leader of the Mountain Grove Cubs, I went to their weekend campout at O'Reilly Lake Family Campgrounds near Mountain Grove. The weather was generally cloudy. We sat around a campfire and cubs did little presentations. I was invited to say a bit about the night sky, and I talked about some of the constellations that could be seen if it were clear, and I mentioned when Mars and Venus could be seen. For a while the moon could be seen amid the clouds and among the trees - high in the south. I left about 2^ UT (10:00 p.m. E.D.T.) without taking the telescope out of the vehicle to set it up.

Tu. June 5 15:50-15:55 UT t C-8, 32
T.O.F.

sun 7g 41s RSN111

T.-W. June 5-6 07:02-07:03 UT (3:02-3:03 a.m. E.D.T.) in fml ne

Looking out the window, I saw the full moon about 5°-10° to the right of Mars in the S. There were some clouds in the area

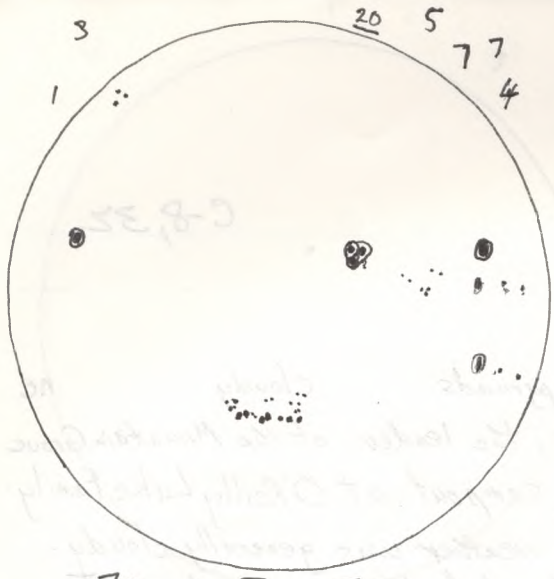
W. June 6 16:05-16:10 UT t C-8, 32
T.O.F.

sun 7g 48s RSN118

W.-Th. June 6-7 02:15-03:45 UT 00 twl, fml ne; C-14, 19, 12

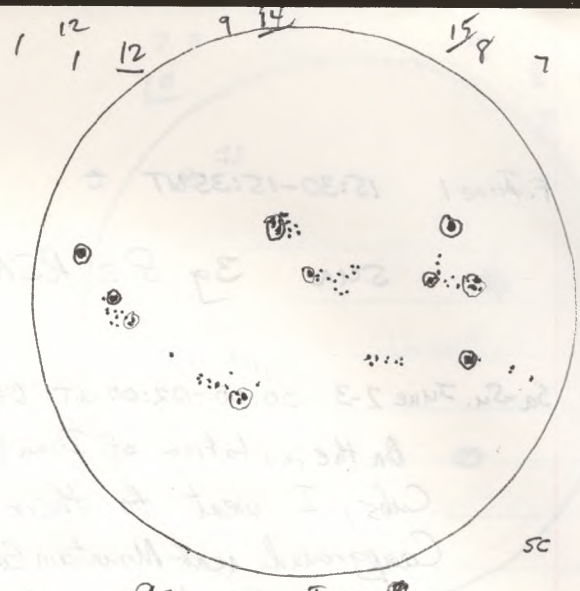
ne: bright stars, Mars, passage of International Space Station from NNW to NE at 02:57 UT, one bright "polar orbit" satellite seen near the star Arcturus

C-14: Mars, very bright (at mag. -2.1), in constellation Ophiuchus, and only about 7° or 8° W. from the Full Moon (Full about 25 hours previously). There were hints of features. (See diagram)



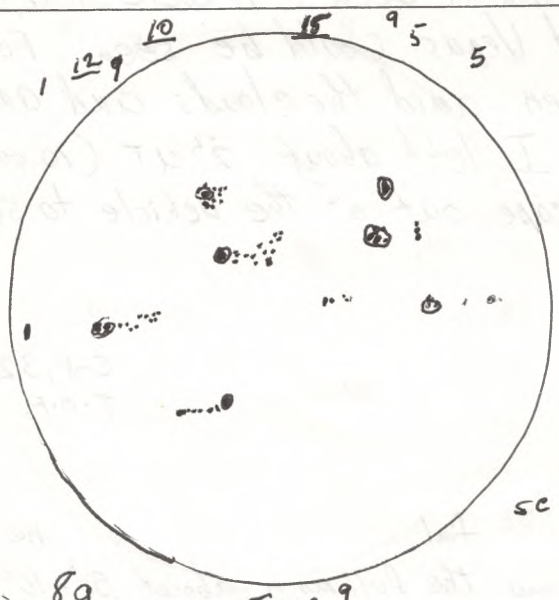
7g
47S
RSN 117

June 7
15:25–15:30 UT



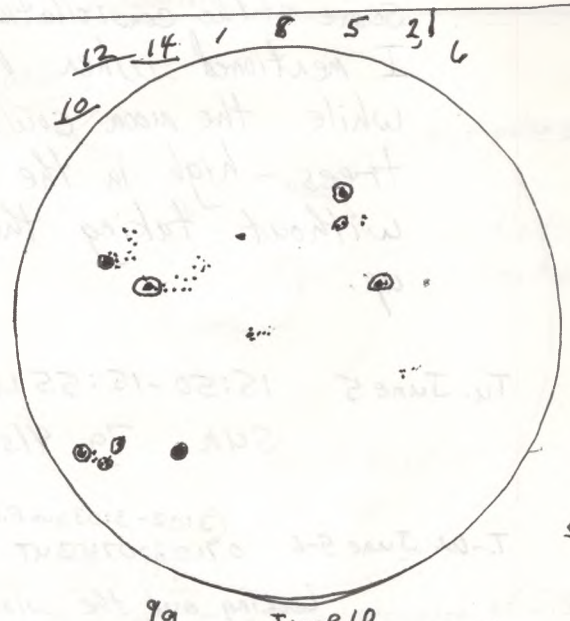
9g
79S
RSN 169

June 8
15:30–15:35 UT



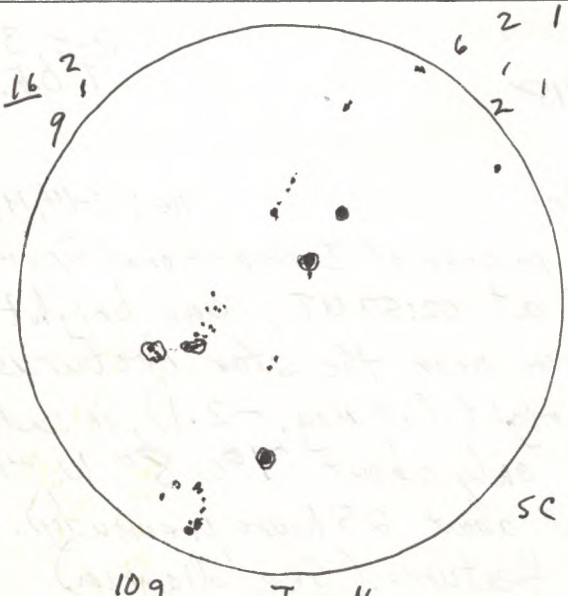
8g
66S
RSN 146

June 9
16:15–16:20 UT



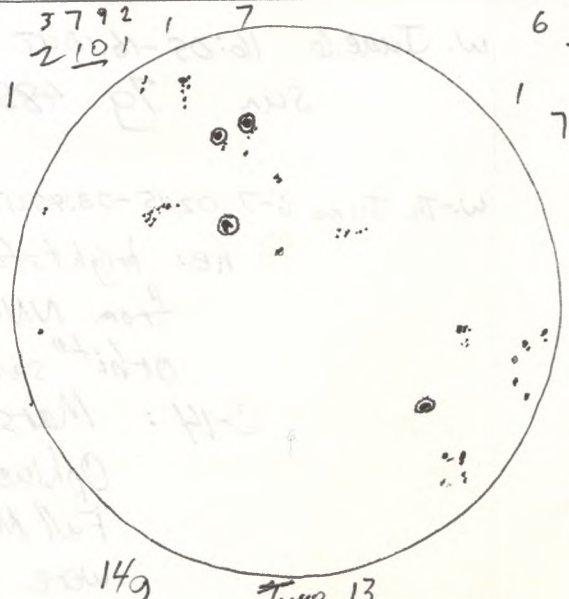
9g
59S
RSN 149

June 10
17:00–17:05 UT



10g
41S
RSN 141

June 11
21:20–21:25 UT



14g
64S
RSN 204

June 13
15:35–15:40 UT

2001

Th. June 7 15:25-15:30 UT t C-8, 32
sun 7g 47s RSN117 T.O.F.

Th.-F. June 7-8 02:15-03:40 UT y twl, gml ne
- I observed bright spring stars in late twl. and watched the sky as the bright gibbous moon rose. Mars was very prominent in the SSE. A glow and fairly bright arc in N. were probably Auroral; I was quite sure of detecting some 'flaming' or pulsation in the arc up about 40° above the horizon. I saw a passage of the International Space Station at 03:34 UT - from NNW to NNE. δ Sco was noticeably bright - considerably brighter than β Sco.

F. June 8 15:30-15:35 UT t C-8, 32
sun 9g 79s RSN169 T.O.F.

Sa. June 9 16:15-16:20 UT t C-8, 32
sun 8g 66s RSN146 T.O.F.

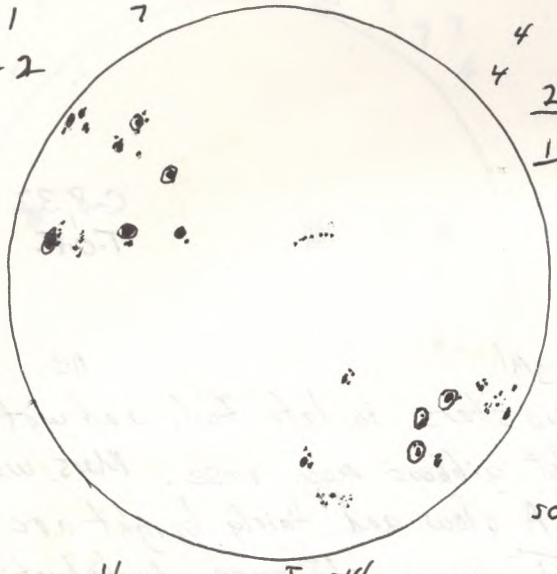
Su June 10 17:00-17:05 UT t C-8, 32
sun 9g 59s RSN149 T.O.F.

M. June 11 21:20-21:25 UT t C-8, 32
sun 10g 41s RSN141 T.O.F.

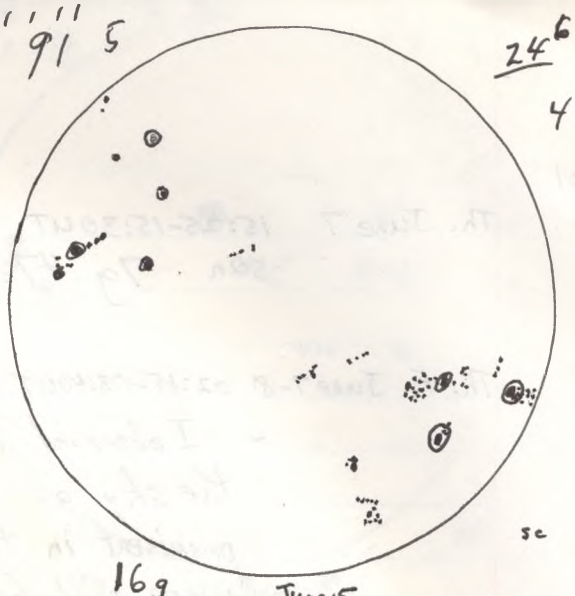
M.-T. June 11-12 03:15-04:40 UT y S-8 T9-9.5(!) ne
- observed bright spring and early summer stars and Mars extremely bright in S.
- photographed area of Scorpius and Mars in S. and Cepheus and area of UMi.

T.-W. June 12-13 05:00-05:15 UT y S-8 T9 ne
- observed bright stars and Mars in S. and photographed Mars area.

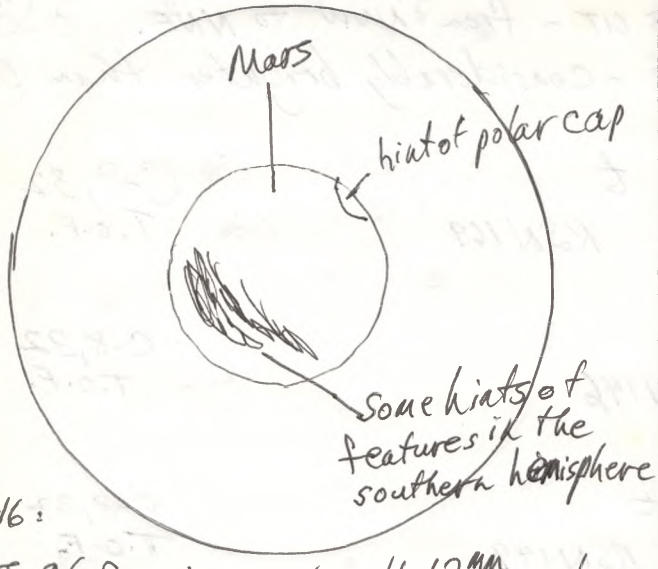
W. June 13 15:35-15:40 UT t C-8, 32
sun 14g 64s RSN204 T.O.F.



11g
8.2s
RSN 192
June 14
16:05-16:10 UT

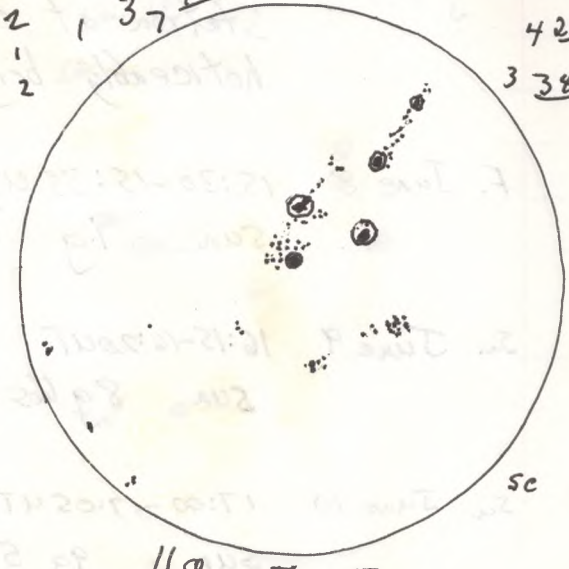


16g
9.1s
RSN 251
June 15
15:20-15:25 UT



June 15-16:

Mars as seen in C-14 with 12mm ocular at 325.8X at about 05h. UT on June 16



11g
8.7s
RSN 197
June 17
18:40-18:45 UT

2001

W.-Th. June 13-14 02:51-02:52 UT nd S-8 T8-9 late twl ne

5 bright stars, one very bright object near γ Leonis for about 5 seconds or so, probably a point meteor or a 'near-point-meteor'

Th. June 14 16:05-16:10 UT t C-8, 32

Sun 11g 82s RSN192 T.O.F.

Th.-F. June 14-15 02:30-06:00 UT oo S-8 T8-9 ne; 20x100b; C-14, 19, 12

ne: bright stars, Mars very bright at mag. -2.3, a bright meteor in Virgo or Denebola area in the constellation Leo in WSW, leaving train and having a reddish and bluish colour

20x100b: M20, M21, M8, M16, M17, M18, M24, M23, M25, M22, Barnard's Star and area

C-14: Mars, with hint of N. Polar Cap and perhaps some hints of detail but not very much detail evident.

- photographed Mars area

F. June 15 15:20-15:25 UT t C-8, 32

Sun 16g 91s RSN251 T.O.F.

F.-S. June 15-16 02:04-02:08 UT nd, y twl ne

During twilight I watched a passage of the International Space Station from NW to SE. It lasted about 4 to 5 minutes and passed very high - almost through the zenith. The ISS was very bright, about mag. -2 or brighter

04:20-06:20 UT oo S-7-8 T8-9 18x50 15b; C-14, 12, 19, 15, JN

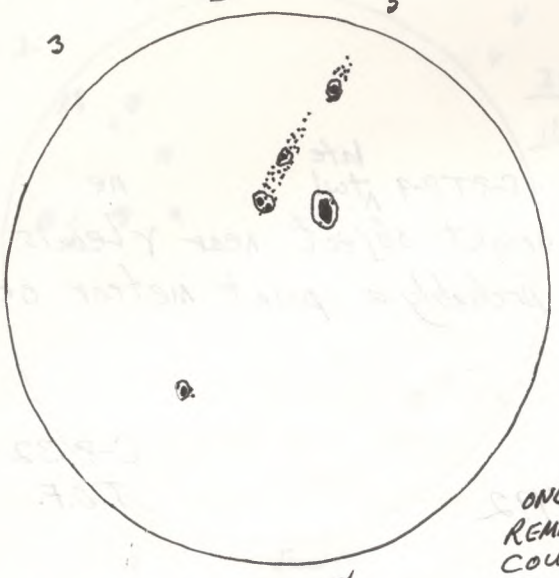
18x50 15b: M20, M21, M8, M22, M23, M24, M25, M16, M17, M11 and area, M13, M51, M57 area, Alcor and Mizar and area, M4, M80, Barnard's Star and area

C-14: Mars and some hints of features, but not very distinct ones (See diagram.)

- photographed areas of the sky including Mars.

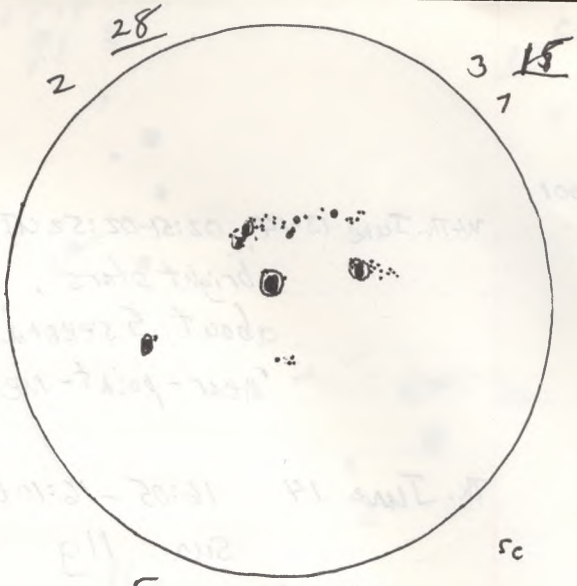
Sa. June 17 18:40-18:45 UT t C-8, 32

Sun 11g 87s RSN197 T.O.F.



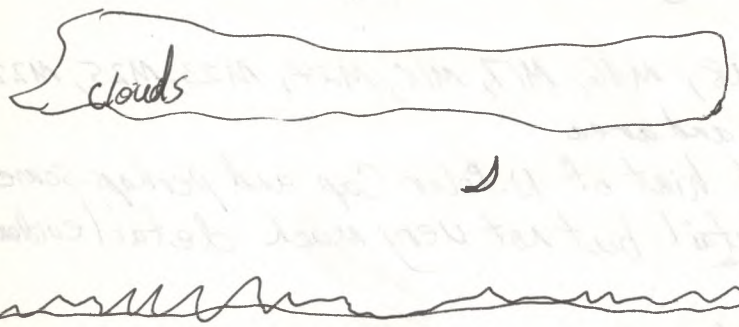
June 18

NOT COMPLETED BECAUSE OF CLOUDS MOVING IN, THOUGH PROBABLY ONLY



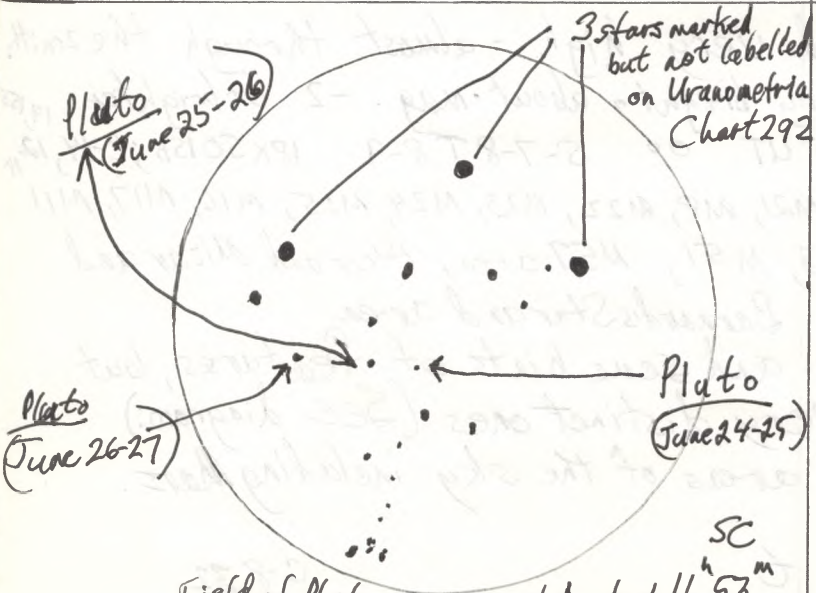
5 9
5 5 s
RSN 105

June 19
13:40-13:45 UT



View toward WNW and the Crescent Moon from Rest Area on Silver Lake

F.-S. June 22-23 at 01:45 UT



Field of Pluto

S.-M. June 24-25

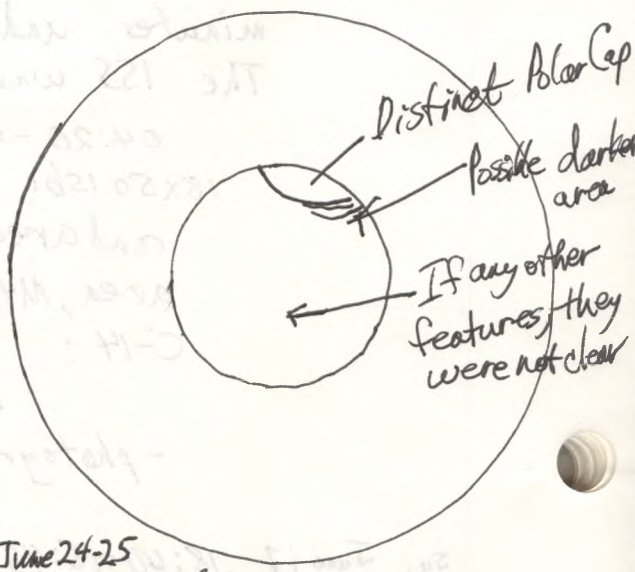
C-14, 32mm ocular

SC

at about α 16h 53m

δ -12° 10'

122.2X



S.-M. June 24-25

View of Mars

2001

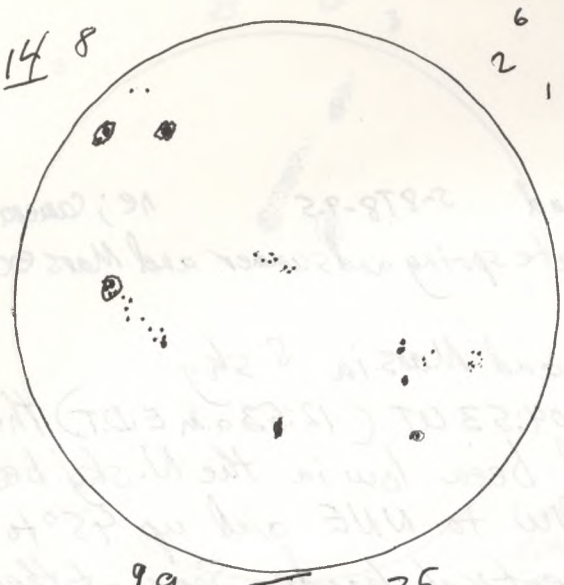
S.-M. June 17-18 04:05-05:45 UT y and nd S-8 T8-9.5 ne; Camera leases
ne:- observed bright stars of late spring and summer and Mars extremely bright in southern sky
photographing: area of Scorpius and Mars in S. sky

Aurora! ne:- Beginning at about 04:53 UT (12:53 a.m E.D.T.) the steady glow that had been low in the N. sky became fairly active from NW to NNE and up 45° to 50° with spikes and vertical bands. Some of them were slightly pink or reddish in colour. This activity lasted about 45 minutes - until about 05:40 UT (1:40 a.m. E.D.T.). Though not a great display, it was the best I had seen in a while.

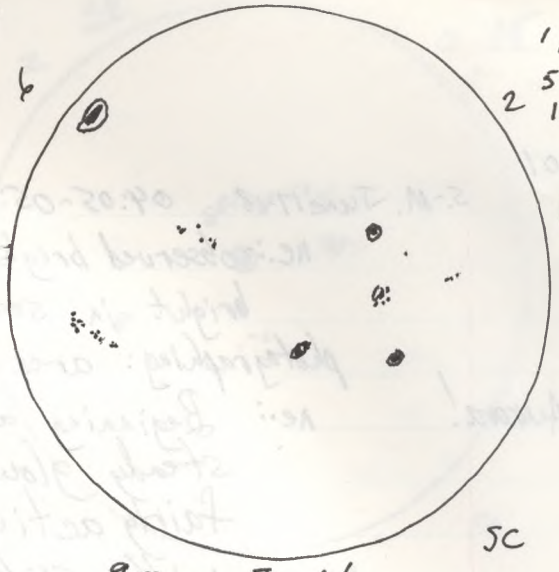
T. June 19 13:40-13:45 UT C-8, 32
sun 5 g 55 s RSN105 Some Cirrus cloud T.O.F.

W.-Th. June 20-21 04:45-05:20 UT nd and y S-7-8 T-8-9 (some moisture in air) ne
ne- observed bright stars, constellations of early summer, and Mars very brilliant (on date perhaps of its greatest brilliancy) since its closest approach to earth in the current year is less than 24 hours away - at 23 hours UT on June 21 (See the Observer's Handbook, 2001, page 69.)
photographing: photographed area of Mars in the S. sky

F.-S. June 22-23 01:00-02:00 UT Rest Stop Area on Hwy 7 Department of Transport tw1 ne; 135 mm lens and 135 + Doubler
After sunset which had been at 00:52 UT, I arrived at the M.T.C. Rest Area on Silver Lake hoping to view and photograph the thin crescent moon which was about 37 hours old. New Moon had been on June 21 at 11:58 UT. I first spotted it at 01:30 UT looking through the 135 mm lens
I photographed the cr. moon over the next 30 minutes as it "set" toward the western horizon using the 135 mm lens and also that lens and the 2x Tele-extender (See diagram



9g June 25
44s 14:50-14:55 UT
RSN



9g June 26
36s 13:40-13:45 UT
RSN 126

2001

03:00-04:00 UT 00 S-ST5 cirrus cloud ne; 20x100b

ne: bright stars and Mars very bright in S, but often the bright stars were hidden or dimmed by the clouds

20x100b: M81 and M82. I waited for the skies to clear hoping to be able to attempt to find Pluto and possibly to photograph the area of Mars in the South, but the clouds persisted in most areas of the sky throughout the observing session.

S.-M. June 24-25 03:45-06:15 UT 00 S-8T9 ne; 20x100b; C-14, 32X8, 13Nt.

ne: bright stars of summer, Mars very bright

20x100b: Barnard's Star and area, M16, M17, M18, M23, M24, M25, M22, M8, M20, M21, M55, M28, asteroid Ceres near handle of The Teapot in Sagittarius (See S.&T, July 2001, page 106), area where Pluto was found in Oph, Uranus, Neptune

Ceres
Uranus
Neptune
Pluto
Mars

C-14: ~~M13~~, Pluto in Ophiuchus (see S.&T, April 2001, page 105) by star hopping from 5 Oph to 20 Oph to field stars found on U292 (see diagram), Mars (See diagram.)

M. June 25 14:50-14:55 UT + C-8, 32
Sun 9g 44s RSN 134 T.O.F.

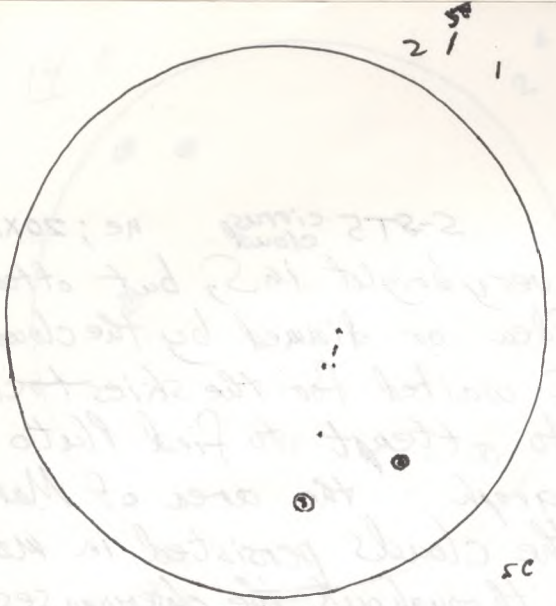
M.-T. June 25-26 03:15-06:15 UT 00 S-7-8T9-9.5 ne; 20x100b; C-14, 32,13

ne: bright summer stars, Mars very bright in S.

20X100b: M16, M17, M18, M22, M23, M24, M25, M8, M20, M11, Uranus, Neptune, Ceres in Sagittarius.

Uranus
Neptune
Ceres
Pluto
Mars

C-14: Pluto which was fairly easily found by star-hopping from 5 Oph and 20 Oph, since it had been found the previous night. Sky conditions were very good, especially after moonset which was at 04:29 UT. Pluto's slight apparent movement westward confirmed the sighting. (See diagram.) Mars seen using 13mm Nagler eyepiece at 300.8X, though the "features" "were fuzzy," or not very distinct.



July 5
14:55-15:00 UT

4g
9s
RSN49

2001

Tu. June 26 13:40-13:45 UT t C-8, 32
Sun 9g 36s RSN 136 T.O.F.

T.-W. June 26-27 03:00-05:45 UT 00 5-8(?)79 (after moonset at 04:58 UT) ne; 20x100b; C-14, 32, 13Na

ne: bright stars of summer; Mars very bright in S.

20x100b: M4, M80, M11, M16, M17, M18, M23, M24, M25, M22, M28, M8, M20, M21, Ceres in Sgr, Uranus, Neptune

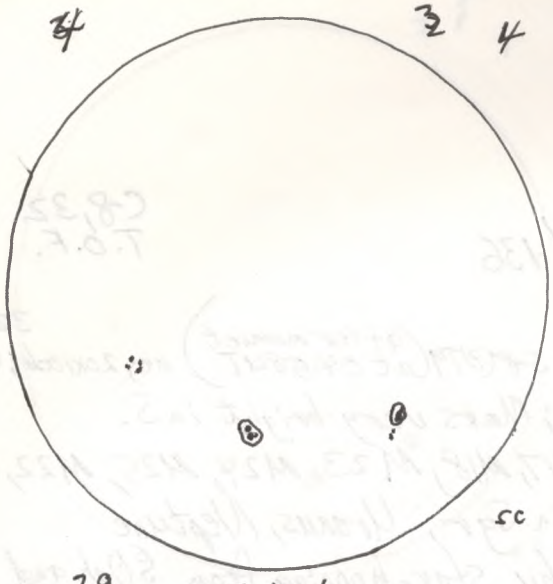
Ceres
Uranus
Neptune
Pluto
Mars

C-14: Pluto in Oph, found by star-hopping from 5 Oph and 20 Oph. Its apparent movement was about the same amount as the previous night. (See diagram.) Mars also was observed - with the 13mm Nagler eyepiece - at 300.8X. Only a small amount of definition was evident.

S.-M. July 1-2 02:30-04:00 UT Fanshawe College, London near Residence at ^ late twl and after Questar 3½ David Levy's ^

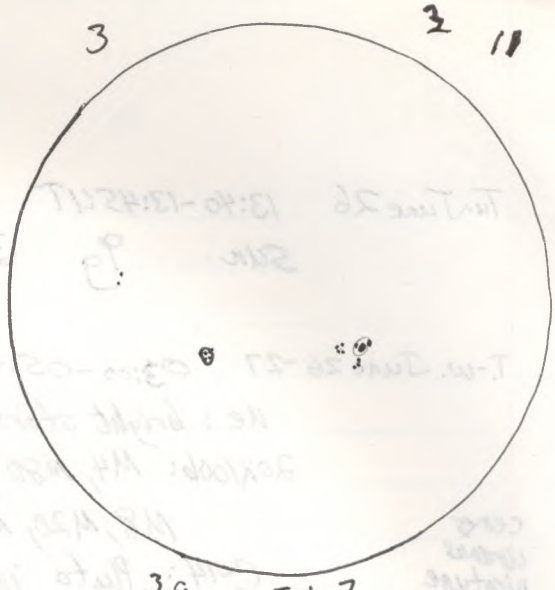
- At the 2001 G.A. in London at Fanshawe College, near the Residence, a couple of telescopes were set up - David Levy's Questar 3½ and Eric Clinton's refractor. In the Questar, a number of RASC members saw lunar craters near the terminator. The view was excellent. In the refractor I saw Mars and the polar cap was distinguishable. During the viewing session, Peter Jedicke and David Levy were able to be persuaded to sing a few of the "old G.A. songs", which were great to hear. Prior to the observing session, I had seen some Canada Day ^ fireworks activity from the sixth floor of the residence where other G.A. participants also viewed the fireworks from the area of the hospitality suite. The next day I drove home, taking David Levy with me as far as Toronto where he went to his brother's place. He was scheduled to fly back to Tucson that evening

Th. July 5 14:55-15:00 UT t C-8, 32
Sun 4g 9s RSN 49 T.O.F.



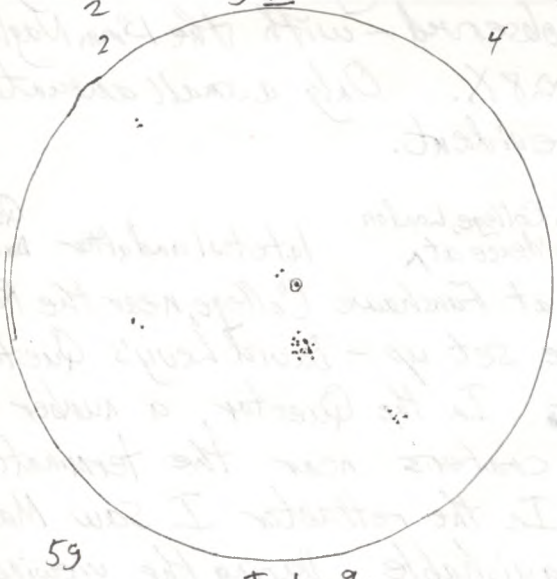
39
11S
RSN41

July 6
15:45-15:50UT



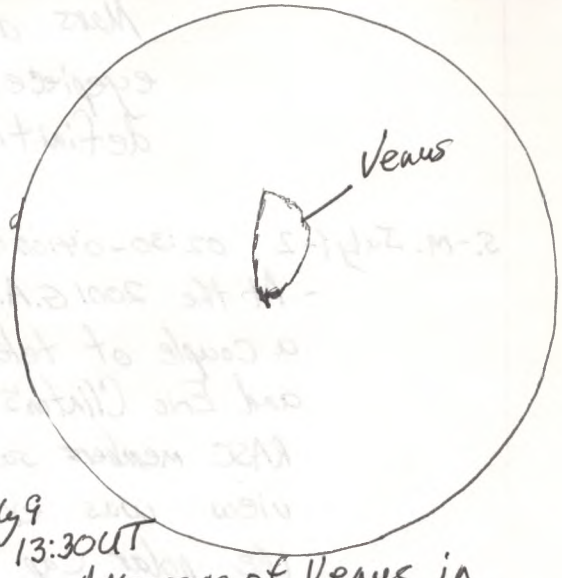
39
17S
RSN47

July 7
15:35-15:40UT



59
27S
RSN77

July 9
13:05-13:10UT



M. July 9
13:30UT
Appearance of Venus in
Dr. Richard Schaude 5 102mm refractor

2001

F. July 6 15:45-15:50UT t C-8, 32
sun 3g 11s RSN41 guest observer: Richard W. Schmude Jr. T.O.F

S. July 7 15:35-15:40 UT t C-8, 32
sun 3g 17s RSN47 T.O.F.

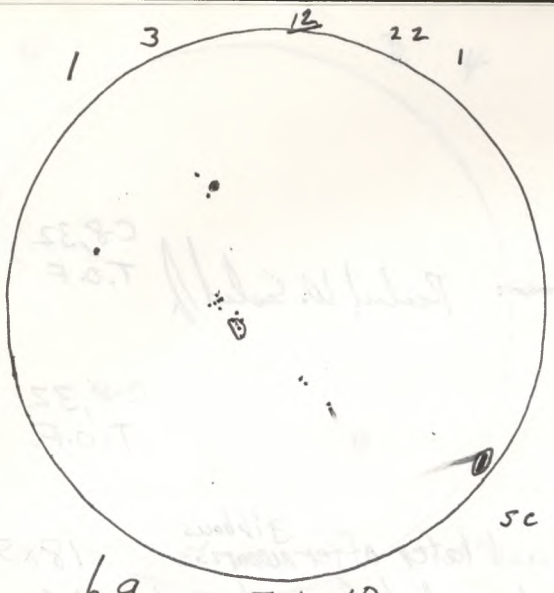
S-M. July 8-9 02:00-03:30UT y twl and later after gibbous moonrise 18x50 SB
- observed during late twl and later when bright gibbous moon had risen. - observed M11 and area, M22, M25, M24, M8, M20, M21, area of Barnard's Star, but not sure of seeing it in the bright sky because of moonlight, M4
Dr. Richard Schmude, with his 11X80 binoculars observed and did estimates for 55 variable stars.

M. July 9 13:05-13:10 UT t C-8, 32
sun 5g 27s RSN77 T.O.F.
13:30-13:50UT y Dr. Richard Schmude's 102mm Refractor

Daytime Venus observation.

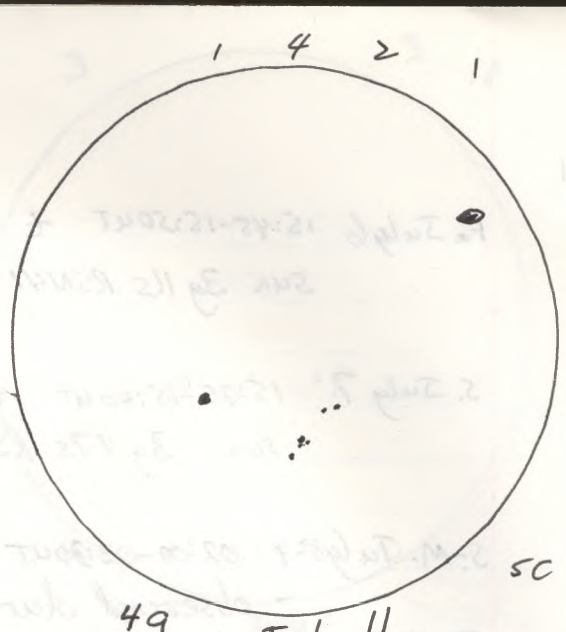
In Dr. Schmude's 102 mm refractor I observed Venus - up about 65° in the south and about 40° W. of the sun which was well up in the SE. It was a good daytime observation. Venus was slightly gibbous - at about a phase angle of 60°. Dr. Schmude was doing research for his Schroder studies. At one point (I think) he thought the phase angle looked less when a cloud made the the planet look brighter. He thought that was perhaps significant for his studies.

M.-T. July 9-10 02:50-03:50 UT y S-8 T9 (some scattered cloud) ne; 18X50 SB
ne: bright summer stars, Mars very bright in S.
18X50 SB: M16, M17, M18, M22, M23, M24, M25, M28, M8, M20, M21, Barnard's Star, M11, M57, M13, area of Neptune in Capricornus, M107, M4, M80



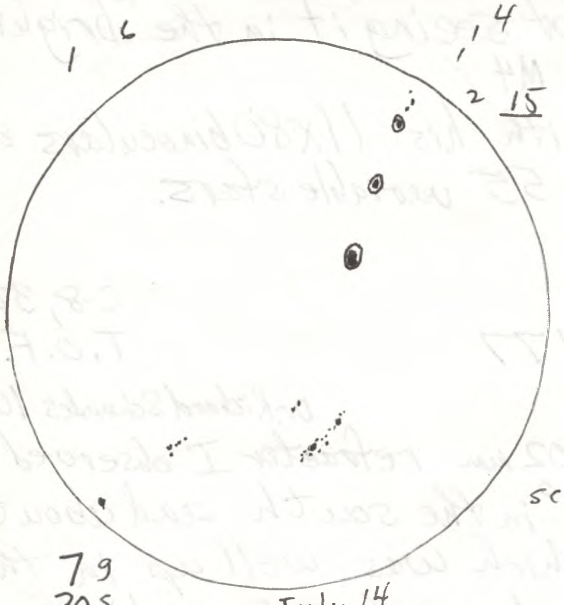
6g
21S
RSN 81

July 10
15:10-15:15 UT



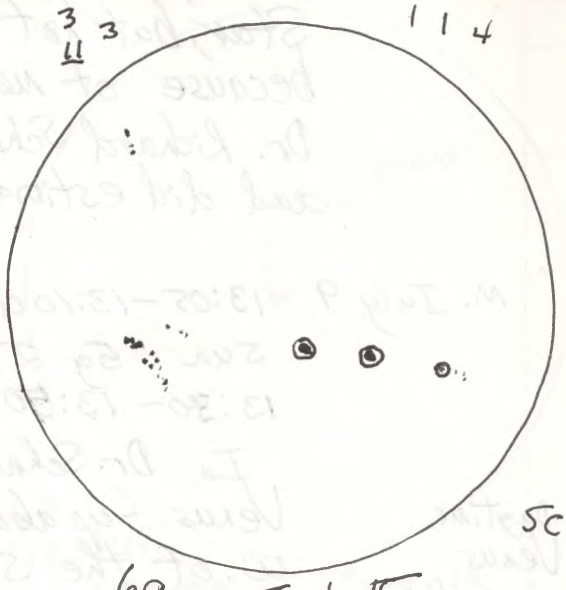
4g
8S
RSN 48

July 11
18:55-19:00 UT



7g
30S
RSN 100

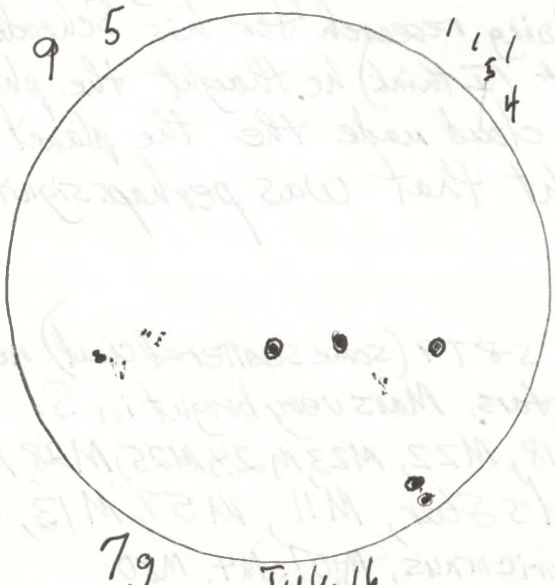
July 14
21:15-21:20 UT



6g
23S
RSN 83

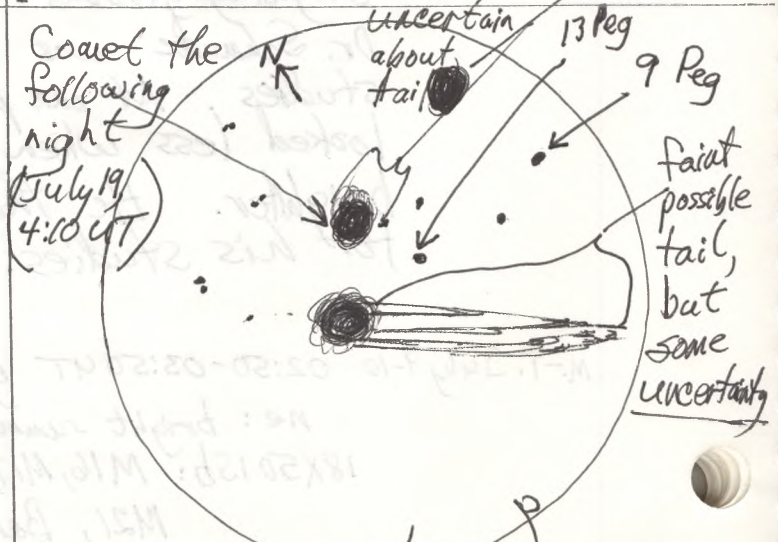
July 15
14:20-14:30 UT

3rd Night
July 20
4:10 UT



7g
26S
RSN 96

July 16
14:50-14:55 UT



Comet LINEAR (C/2001 A2) in 18X50156
July 18, 04:20 UT in Peg (See U166) at
about R.A 21:54 Dec 17°.1

2001

T. July 10 15:10-15:15UT t C-8, 32
sun 6g 21s RSN81 T.O.F.

W. July 11 18:55-19:00UT t C-8, 32
sun 4g 8s RSN48 T.O.F.

Sa. July 14 21:15-21:20UT t C-8, 32
sun 7g 30s RSN100 T.O.F.

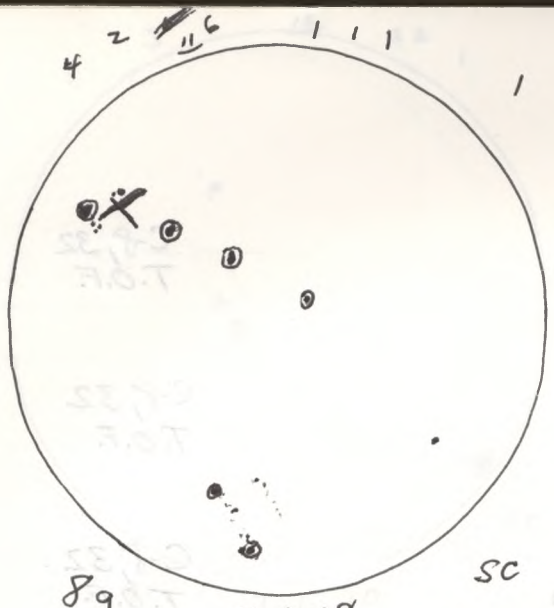
Su. July 15 14:20-14:30UT t C-8, 32
sun 6g 23s RSN83 T.O.F.

S.-M. July 15-16 03:45-05:20UT y S-8T9 ne; 18x50156
ne: bright stars of summer; Mars very bright in S.; 2 meteors; bright glow in N. up 20° and hints of reddishness up much higher in N and NW - probably Auroral.
18x50156: M11, M16, M17, M18, M23, M24, M25, M22, M28, M8, M20, M21, searched for Comet Linear (C/2001A2) in constellation Pegasus, but was not sure of seeing it.
photographed: area of Mars, areas in NE of Per, Cas, and Cep. constellation Sagittarius.

M. July 16 14:50-14:55UT C-8, 32
sun 7g 26s RSN96 T.O.F.

T.-W. July 17-18 04:15-05:05UT y S-8-9(?)T9-9.5(!) ne; 18x50156
ne: bright stars; Mars very bright in S.; 1 meteor I thought I saw Comet LINEAR (C/2001A2) between the star Enif and the square of Pegasus
18x50156: M11, M16, M17, M18, M8, M20, M21, M22, M23, M24, M13, Barnard's Star, TCorBor, RCorBor, Comet LINEAR (C/2001A2) bright and large and with a tail in the binoculars. (See diagram.), areas of Uranus and Neptune.

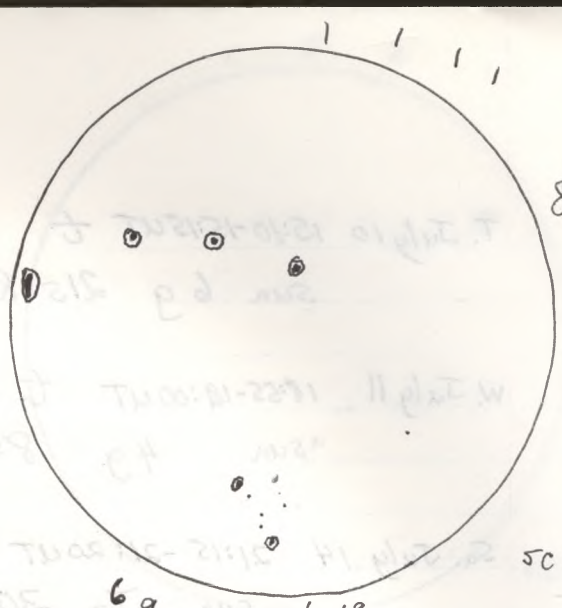
Comet LINEAR



8g
27s
RSN107

July 18
14:35-14:40 UT

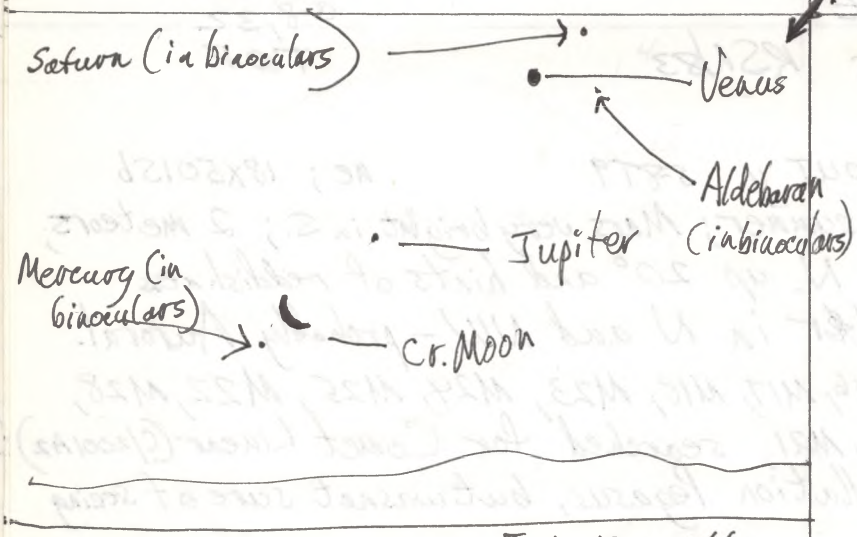
SC



6g
13s
RSN73

July 19
15:00-15:05 UT

SC



View to E at 09:10 UT July 19 with a great array of planets. It was well into morning twilight

2001

W. July 18 14:35-14:40 UT t C-8, 32
Sun 8g 27s RSN 107 T.O.F.

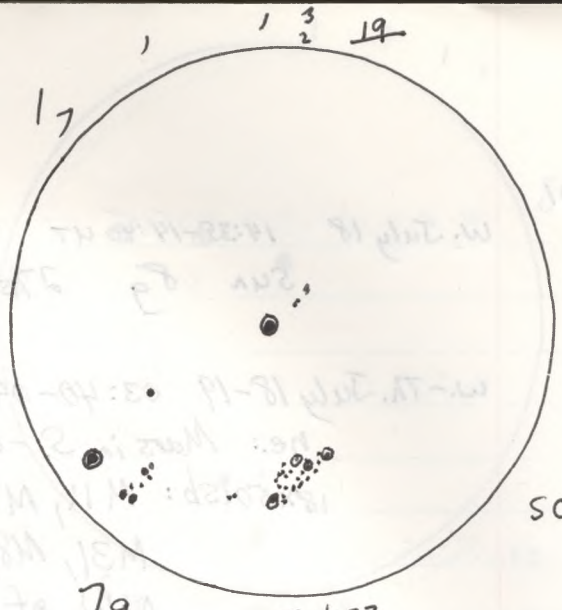
W.-Th. July 18-19 03:40-04:20 UT y S-8-9(?)T9 ne; 18x50 15b
ne.: Mars in S. - very bright.
18x50 15b: M11, M16, M17, M18, M23, M24, M25, M14, M80, M22, M28, M31, M8, M20, M28, Comet LINEAR (C/2001 A2) NW of where it had been 24 hours before, still bright but I was unsure of seeing it naked-eye and quite uncertain about seeing any significant amount of tail from the comet, area of Uranus and Neptune
Comet LINEAR
(05:00-05:20 a.m. E.D.T.)
m. 09:00-09:20 UT dock twl 18x50 15b
In the morning twilight, from the dock, I observed the Crescent Moon and an array of four planets, seeing two of them with the help of binoculars. The very old Crescent Moon was about 39 hours from New and appeared between Mercury and Jupiter. It was visible naked-eye easily. Mercury at that point late in twilight seemed to require binoculars. (Astronomical Twilight had begun at 7:36 UT and sunrise would be at 9:41 UT) Venus, and also Saturn which was seen in binoculars appeared above Jupiter. (See diagram.)
Photographing: In the first session I photographed the area of the Big Dipper and the area of Mars in the S. In the morning session I tried to photograph the array of planets and the Crescent Moon.

Th. July 19 15:00-15:05 UT t C-8, 32
Sun 6g 13s RSN 73 T.O.F.

Th.-F. July 19-20 04:15-05:20 UT y S-8, T9.5-10 (!) ne; 18x50 15b
Mars very bright in S., 2 meteors, one of them possibly an

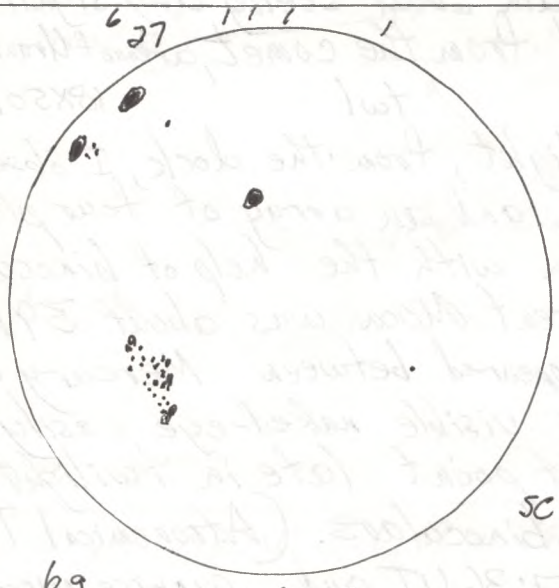
69
22S
RSN 82

July 20
14:20-14:25UT



79
34S
RSN104

July 22
20:05-20:10UT



69
37S
RSN97

July 23
15:20-15:25UT

2001

an early Perseid, glowin N. and very faint hint of vertical band that may have been Auroral

18x50 ISb: M11, M16, M17, M18, M23, M24, M25, M28, M22, M8, M51, M20, M21, M15, area of Uranus, Neptune, Comet LINEAR, seen for the third night in a row, not far from 9 Peg. (See diagram.) -seemed to be just below "naked-eye" visibility.

Comet LINEAR (C/2001 A2)

-photographed: area of Big Dipper and area of Mars in SSW.

F. July 20 14:20-14:25 UT t C-8, 32
sun 6g 22s RSN82 T.O.F.

F.-S. July 20-21 02:55 - 04:10 UT y S-8(?) T 8.5-9 ne; 18x50 ISb

ne: Mars very bright in S.; 3 bright meteors, 2 of them very bright and one of them possibly an early Perseid

18x50 ISb: M11, M15, M16, M17, M18, M23, M24, M25, M22, M28, M8, M20, M21, M13, M57 area, Comet LINEAR (C/2001 A2), seen on the fourth consecutive night too faint to bee seen nakedeye, still farther N from the star 9 Peg than marked for the previous night on the diagram. (See diagram 2 pages previous.) area of Uranus in Capricornus, Neptune, T Cor Bor, R Cor Bor.

Comet LINEAR (C/2001 A2)

-photographing: areas of the sky including the area of Comet LINEAR (C/2001 A2).

Su. July 22 20:05 - 20:10 UT t C-8, 32
sun 7g 34s RSN104 T.O.F.

S.-M. July 22-23 03:10-03:15 UT nd S-8? T6-7 (some haze; some cloud) ne

- With some haze and some cloud present, I observed Mars in the south, some stars and constellations and one bright meteor in N. below the Big Dipper, probably a Perseid.

probable Perseid

M. July 23 15:20-15:25 UT C-8, 32
sun 6g 37s RSN97 T.O.F.

Relative Sunspot Numbers

Date 2001	My Observation
Feb. 15	68
17	37
18	36
1920 21	58
26	32
Mar. 2	36
3	69
4	70
7	83
12	45
15	58
17	50
19	58
1930 20	72
24	126
25	234
26	201
Apr. 2	173
3	157
4	127
5	113
8	97
9	80
10	81
1940 12	127
13	144
14	86
18	40
19	72
20	109
22	121
25	107
26	100
1950 27	128
29	91
30	123
May 1	128
2	124
3	103
5	98
6	93

Date	My Observation
May 7	56
9	62
1960 10	78
13	86
14	72
15	85
16	83
18	57
19	47
20	64
21	111
23	116
25	113
31	71
June 1	38
5	111
6	118
7	117
8	169
9	146
10	149
11	141
1980 13	204
14	192
15	251
17	197
19	105
25	134
26	136
July 5	48
6	44
7	47
9	77
1990 10	81
11	48
14	100
15	83
16	96
18	107
19	73
20	82
22	104
2000 23	97