

# LEO ENRIGHT LOGBOOKS

Volume  
**29**

September 25, 2007  
to  
January 27, 2008

THE IMAGES OF THE LEO ENRIGHT LOGBOOKS are for personal and research use for non-commercial purposes. The image copyright holders are Leo Enright and the RASC. Users are allowed to download or print materials from this website for purposes of research, teaching, and private study, without prior permission provided that the materials are properly credited to the copyright holders, Leo Enright and the RASC. All other uses such as commercial or scholarly reproduction, redistribution, publication or transmission requires permission from the copyright holders, and fees may be required. Please contact [logbooks@rasc.ca](mailto:logbooks@rasc.ca) to obtain permission, and fees information.

Hilroy

29

- Heavyweight paper
- Papier épais

*Leo Enright*

*Observing Log: 2007 Sept. 25 - 2008 Jan 27*

80

Pages

26.7 x 20.3 cm

MATHS / SCIENCES



13220

0 65800 13220 7



**AAVSO**  
 49 Bay State Road, Cambridge, MA 02138, U.S.A.  
 Tel: 617-354-0484 ☆ Fax: 617-354-0665  
 aavso@aavso.org  
 http://www.aavso.org



**2007**  
**JULIAN DAY CALENDAR**  
 2,450,000 plus the value given under each date

2007 Oct. 12: Observing since Sept. 14 (last meeting)

15 solar observations in white light

from Sept. 17 to Oct. 5 + today all RSN: 0

2007, Nov. 9:

Observing since Oct. 12 (last meeting)

17 Solar observations in white light

from Oct. 16 to today

RSN 0 on each date

Milestone: On Oct. 26<sup>th</sup> I did my 2600<sup>th</sup> solar observation.

17 H $\alpha$  observations with the PST.

Prominences: Oct. 26: 17:15 UT

(3 dates) spectacular prom. at 9 o'clock pos. in eyepiece

Oct. 31: 17:40 UT

short, sharp, thin prominence at the

3 1/2 o'clock pos. in eyepiece

11:3:17:15 UT

**2007**

JANUARY/JANVIER						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY/FÉVRIER						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH/MARS						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL/AVRIL						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY/MAI						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE/JUIN						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY/JUILLET						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

AUGUST/AOÛT						
SUN/DM	MON/LUN	TUE/MAR	WED/ME	THU/JEU	FRI/VEN	SAT/SAM
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15

# Observing Log

Code:

Year Day Date Time

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

Time:

UT = Universal Time

Places:

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

Instruments:

C-14 = Celestron 14-35.5 cm SCT

C-8 = Celestron 8-20 cm SCT

Ast = Astroscan 2001-10.5 cm RFT

12 $\frac{1}{2}$ " = Denise's 32 cm Meade Dobsonian

20x100b = Celestron 20x100 binoculars

11x80b = 11x80 binoculars

9x63b = 9x63 binoculars

7x35b = 7x35 binoculars

18x50ISb = Canon 18x50 IMAGE STABILIZED binoculars

P.S.T. = Coronado Personal Solar Telescope

32 = 32 mm ocular

32-2 = 32 mm 2" ocular

E = Erfle

K = Kellner

O = Orthoscopic

Ko = König

WA = Wide Angle

p = Plössl

ph = photography

plb = piggyback

o/a = off-axis

Ba = Barlow

A.P.F. = Astrophysics Solar Filter

T.O.F. = Thousand Oaks Solar Filter

Objects:

PN = Planetary Nebula

GC = Globular Cluster

OC = Open Cluster

SG = Spiral Galaxy

LPV = Long Period Variable

DS = Double Star

Atlases:

U = Uranometria 2000.0

U 210 = Uranometria 2000.0 Chart 210

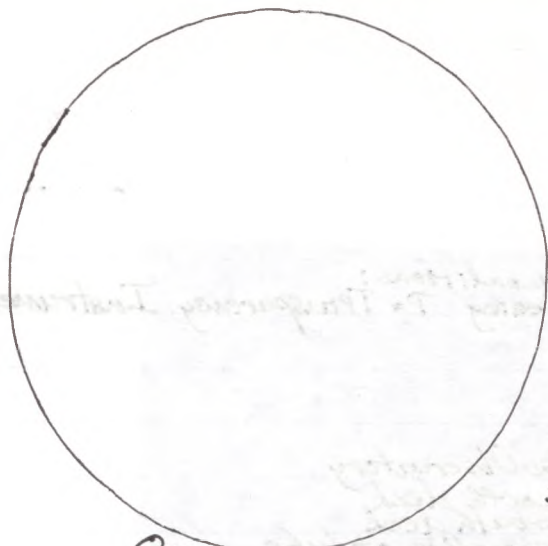
AAVSO = AAVSO Variable Star Atlas

Cam = Cambridge Star Atlas (2000.0)

MSA = Millennium Star Atlas

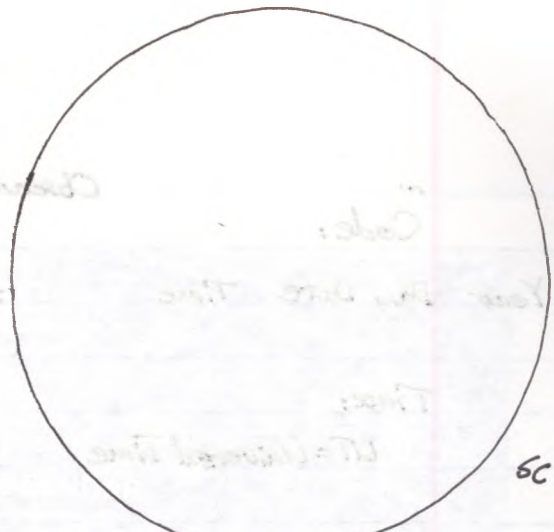
USDA = Uranometria 2000.0 Deep Sky Atlas

Atlas Chart 210.



5C

Og  
Os  
RSNO Sept. 25  
19:25-19:30 UT



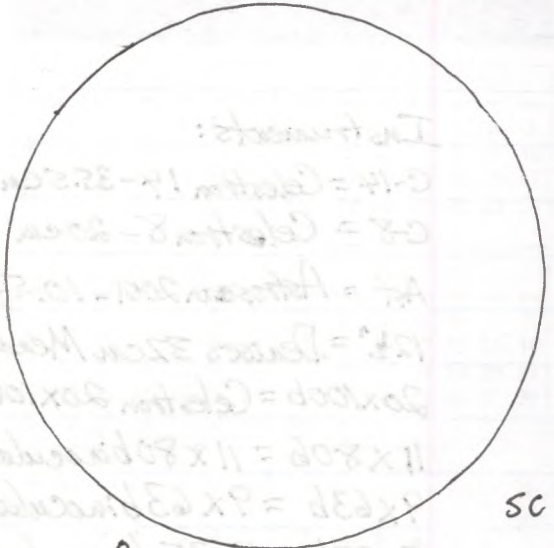
6C

Og  
Os  
RSNO Sept. 27  
17:20-17:25 UT



5C

Og  
Os  
RSNO Sept. 30  
17:55-18:00 UT



5C

Og  
Os  
RSNO Oct. 1  
18:25-18:30 UT

2007 Tu. Sept. 25 19:25-19:30 UT t  
sun Og Os RSNO

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

Tu. Sept. 25 19:30-19:35 UT nd  
sun in H $\alpha$  - hints of prominences on the solar disk

Th. Sept. 27 17:20-17:25 UT t  
sun Og Os RSNO

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

Th. Sept. 27 17:25-17:30 UT nd  
sun in H $\alpha$  - hints of prominences on the solar disk

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

Su. Sept. 30 17:55-18:00 UT t  
sun Og Os RSNO

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

Su. Sept. 30 18:00-18:05 UT nd  
sun in H $\alpha$  - hints of prominences around the solar disk

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

M. Oct. 1 18:25-18:30 UT t  
sun Og Os RSNO

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

M. Oct. 1 18:30-18:35 UT nd  
sun in H $\alpha$  - some hints of prominences on the solar disk

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

WTh. Oct. 3-4 02:30-03:30 UT y S8T7-8 (varied) ne; 18X5015b  
ne: After having observed Jupiter during early twilight, I observed the stars of autumn and Mars rising in the trees in the E.

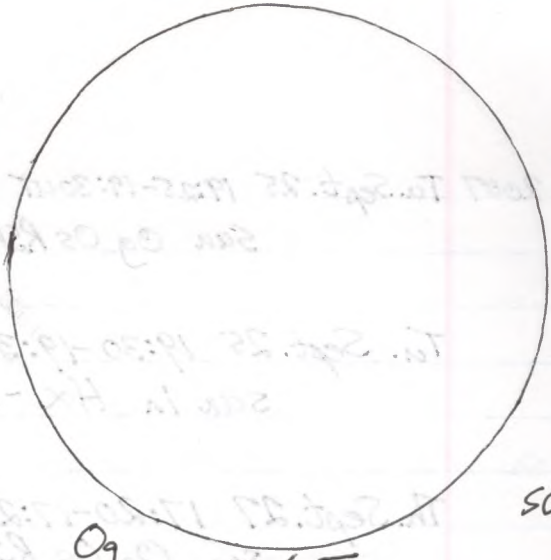
18X5015b: Uranus, Neptune, M30, Helix Nebula, Col 399, M27, M11, M57, M13, M92, Psi Draconis DS, Nu Draconis - DS, Kemble 2, the Polaris "Engagement Ring" of stars, Kemble's Cascade, Double Cluster in Perseus, NGC 654,



SC

Og  
Os  
RSNO

Oct. 4  
18:20-18:25 UT



SC

Og  
Os  
RSNO

Oct. 5  
19:15-19:20 UT

*[Faint, mostly illegible handwritten notes in the bottom-left quadrant, possibly describing observation details or equipment.]*

*[Faint, mostly illegible handwritten notes in the bottom-right quadrant, possibly describing observation details or equipment.]*

*[Faint, mostly illegible handwritten notes in the bottom-left quadrant, possibly describing observation details or equipment.]*

*[Faint, mostly illegible handwritten notes in the bottom-right quadrant, possibly describing observation details or equipment.]*

2007

NGC 663, M103, NGC 457, NGC 281, NGC 7789,  
M52, M34, The Pleiades, the  $\alpha$  Persei Cluster,  
NGC 752 (Levy 53), M31, M32, M110, M33, M2,  
M15, M81, M82.

Th. Oct. 4 18:20-18:25 UT t  
sun Og Os RSNO

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

Th. Oct. 4 18:25-18:30 UT nd  
sun in H $\alpha$ -heads of prominences on the solar disk.

Th. F. Oct. 4-5 03:25-04:30 UT y 58T9(!) ne; 18x5015b

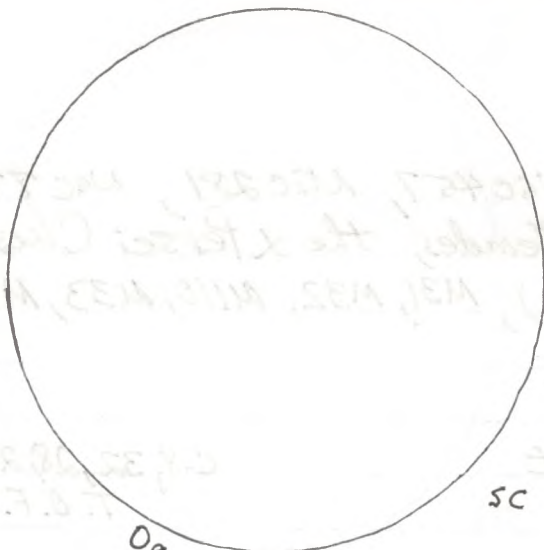
ne: After observing Jupiter during twilight, I  
observed the stars of autumn and Mars rising  
in the East.

18x5015b: Uranus, Neptune, M2, M15, Col 399,  
M71, M27, M57,  $\beta$  Cyg, Barnard's E in  
Aquila, M13, M92,  $\nu$  Draconis-DS,  $\psi$  Draconis,  
DS, Kemble 2, Double Cluster in Perseus, Stock 2,  
NGC 654, NGC 663, M103, NGC 457, NGC 281,  
M52, NGC 7789, M34, M31, M32, M110, M33,  
NGC 752 (Levy 53), NGC 253, NGC 288-  
the latter two being S. of  $\beta$  Ceti, M81, M82,  
the Polaris "Engagement Ring" of stars, Hyades,  
NGC 1647-OC near the Hyades, NGC 1746-further  
NE of the Hyades and another fairly large cluster,  
Mars and M35 near it,  $\mu$  Cep,  $\beta$  Lyrae-at or  
near its maximum brightness,  $\delta$  Cephei-at or  
near its minimum brightness.

F. Oct. 5 19:15-19:20 UT t  
sun Og Os RSNO

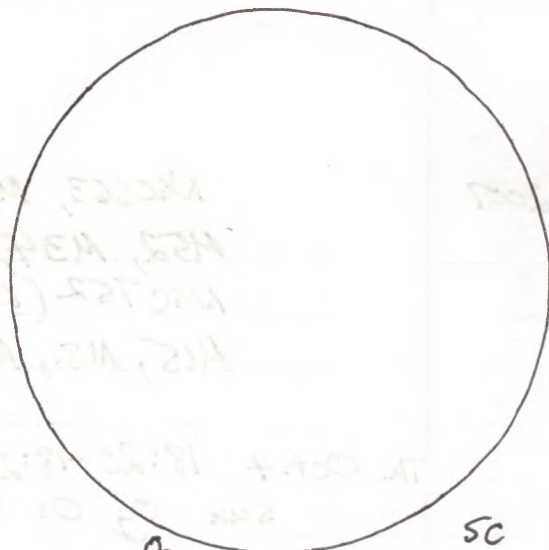
C-8, 32, 28, 20, 15.5  
T.O.F.





SC

09  
03 Oct. 12  
RSNO 17:55-18:00 UT



SC

09  
05 Oct. 16  
RSNO 17:25-17:30 UT

*[Faint, mostly illegible handwritten notes in the middle section of the page, possibly describing observations or data.]*

*[Faint, mostly illegible handwritten notes in the bottom section of the page, possibly describing observations or data.]*

2007 F. Oct. 5 19:20-19:25 UT nd P.S.T.; 20, 28, 20E, 15.5  
sun in H $\alpha$  - hints of prominences on the solar disk.

F. Oct. 12 17:55-18:00 UT t c-8, 32, 28, 20, 15.5  
sun Og Os RSNO T.O.F.

F. Oct. 12 18:00-18:05 UT nd P.S.T.; 32, 28, 20, 15.5  
sun in H $\alpha$  - hints of some prominences on the solar disk.

S.S. Oct. 13-14 03:55-04:00 UT nd S?T9 ne  
- After returning from Kingston after attending the Queen's Homecoming football game with Ken Kingdon, I observed briefly, finding the sky clear, but the transparency not perfect because of water vapour in the atmosphere. Dewing was bad. Stars of autumn were seen with the Andromeda Galaxy visible, and the Summer Triangle in the W, and Auriga prominent in the E. Although the transparency seemed excellent at first, there was a considerable amount of water vapour in the air.

Tu. Oct. 16 17:25-17:30 UT t c-8, 32, 28, 20, 15.5  
sun Og Os RSNO T.O.F.

Tu. Oct. 16 17:30-17:35 UT nd P.S.T.; 20, 28, 20E, 15.5  
sun in H $\alpha$  - some hints of small prominences on the solar disk

T.W. Oct. 16-17 01:25-03:00 UT y S?T9-6 (varied) ne; 18X501sb  
ne: stars of autumn.

18X501sb: Uranus and area, Neptune and area, Helix Nebula, M30, M57, M71, M27, NGC 6830 - OC ~~W~~ of M27, NGC 6823 - OC W. of M27, Col 399, M13, M92, NGC 6633, IC 4756, star called



2007

Twcedledee and Twcedledum,  $\theta$  Serpentis - DS -  
split,  $\nu$  Draconis - DS,  $\psi$  Draconis - DS,  
Keable 2, "Engagement Ring of Stars" near Polaris,  
Double Cluster in Perseus, Stock 2, Keable's  
Cascade, NGC 663, NGC 654, M103, NGC 457,  
NGC 281, NGC 7789, M52, M34, Levy 53 (NGC 752)  
M31, M32, M110, M33.

W-Th. Oct. 17-18 03:05-03:15 UT  $y$  S:T 2-1 (varied) ne; 18X5015b

ne: In spite of the clouds, I observed briefly seeing,  
amid the clouds, Capella, Aldebaran and some other  
stars occasionally. For a while the bright  
stars of Cassiopeia, or some of them could be  
seen very high in the NE.

18X5015b: stars of the Hyades, the Pleiades.

Sa. Oct. 20 18:05-18:10 UT  $t$   
sun  $O_3$   $O_5$  RSNO

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

Sa. Oct. 20 19:45-19:55 UT  $y$

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

sun in H $\alpha$  = only hints of prominences on the solar disk.

Because of clouds and a short but heavy rain storm,  
I had to delay my H $\alpha$  solar observation by about 1 1/2  
hours.

Sa.-Su. Oct. 20-21 02:40-02:50 UT nd S:T 6 (gm1) ne

In spite of a bright gibbous moon in the SSW, I  
observed briefly on the evening before the peak of  
the Orionid Meteor Shower, thinking that I might  
possibly see one or two. The Pleiades and Aldebaran and  
Capella were in the E; the moon was in the SSW.

09:57-10:18 UT nd

Beginning at about 3 minutes after the beginning of



5c

Og  
05  
RSNO

Oct. 21  
17:50-17:55 UT

- - Regulus
- - Saturn
- - Venus

E 2007, Oct. 22 10:00 UT View to SE  
the ESE

2007

3 Orionids

astronomical twilight, I observed on the north deck hoping to see a few Orionid Meteors. Mars in Gemini was near the zenith. Saturn and Venus in the constellation Leo were well up in the E. I saw 3 Orionids and 2 sporadic meteors - one in Gemini and a bright one (mag. about -3) in Taurus and Gemini. It was a good short session under transparent skies

Su. Oct. 21 17:50-17:55 UT t.  
Sun Og Os RSNO

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

Su. Oct. 21 17:55-18:00 ad

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

Sun in H<sub>α</sub> - some hints of prominences on the solar disk

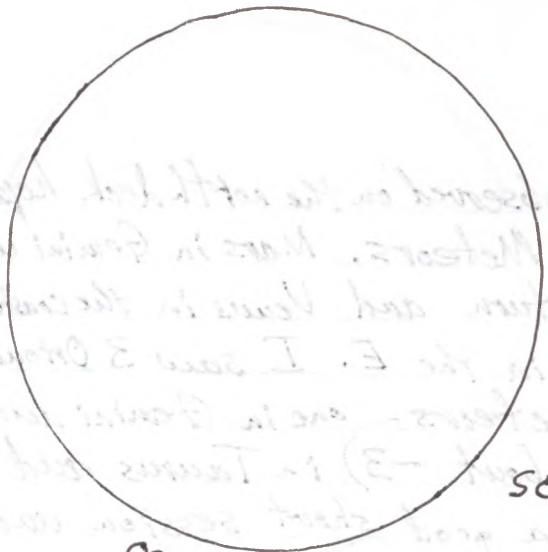
Su-M. Oct. 21-22 m 08:10-10:10 UT y, ad S8T9

ne; 18x5015b

30 Orionids

ne: In the early morning sky I observed the bright 'winter stars' and Mars in Gemini near the zenith, and Saturn and Venus rising above the trees in the ESE below Regulus. (See diagram.) The Orionid Meteor Shower was still quite active with a good number of both bright and faint meteors. I counted 30. I also counted 3 sporadic meteors. It was a beautiful morning to watch meteors. At the end of the session I decided to try to see Comet LONEOS.

18X5015b: I explored in the sky above the trees in the E some areas of the constellations Leo and Coma Berenices, hoping possibly to see Comet LONEOS, but I did not see it. On checking its ephemeris, I found it was probably further down and nearer to the star Arcturus. It might have been "behind the trees."



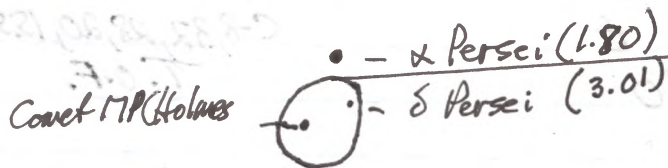
Og  
05  
RSNO

Oct. 22  
17:55-18:00 UT

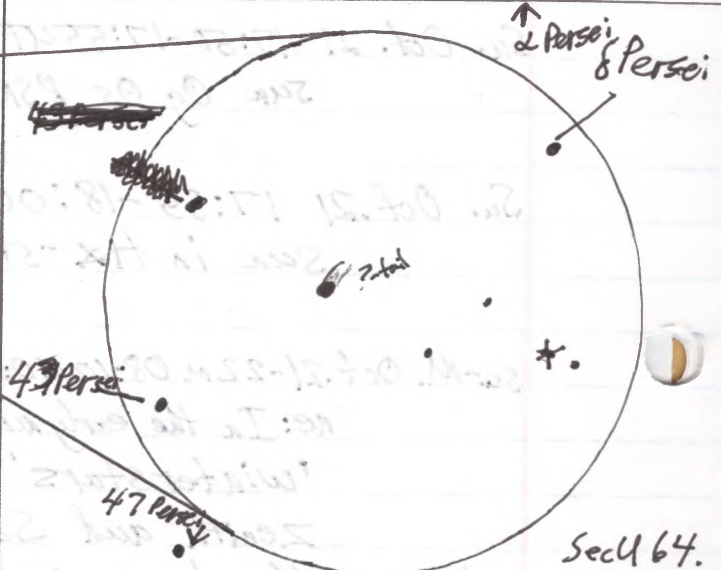


Og  
05  
RSNO

Oct. 24  
18:55-19:00 UT



• - Capella



Sec 64.

2007, Oct. 25, 04:15 UT View to E with  
Capella up about 40° from the horizon

2007, Oct. 25, 4:15 UT Binocular View  
(18X50156) of Comet 17P (Holmes). (Tail uncertain)

2007 M. Oct. 22 17:55-18:00 UT  $\epsilon$   
sun Og Os RSNO

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

M. Oct. 22 18:00-18:10 UT nd + y P.S.T., 20, 28, 20E, 15.5  
sun in H $\alpha$  - some hints of prominences on the solar disk.

W. Oct. 24 18:55-19:00 UT  $\epsilon$  C-8, 32, 28, 20, 15.5  
sun Og Os RSNO T.O.F.

W. Oct. 24 19:00-19:05 UT nd P.S.T.; 20, 28, 20E.  
sun in H $\alpha$  only hints of prominences on the disk

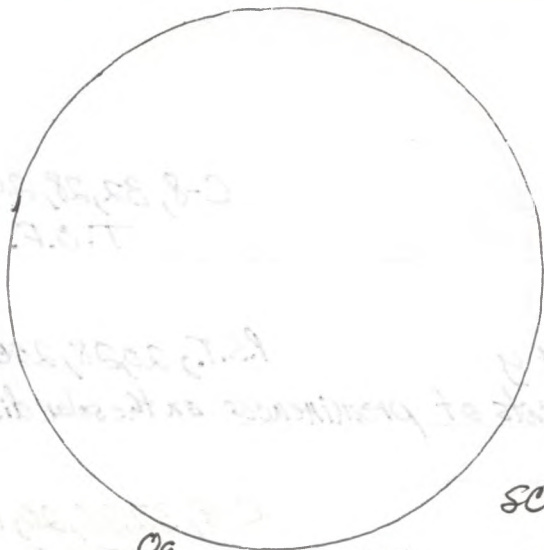
W-Th. Oct. 24-25 04:00-04:30 UT nd S?TS (ful) ne; 18X50/15b

ne: I observed with a very bright Full Moon high in the southern sky because Ken Kingdon had phoned to tell me of the quick and dramatic rise in the brightness of Comet 17P (Holmes) which was now naked-eye, in spite of the Full Moon. With the moonlight I saw Capella, Vega, Deneb and a few stars and in Perseus I saw  $\alpha$  Persei,  $\delta$  Persei, and Comet 17P (Holmes). The comet appeared about half way between the brightness of those two stars - hence, at about mag. 2.4.

18X50/15b: I observed the  $\alpha$  Persei cluster of stars, and below it  $\delta$  Persei and Comet 17P (Holmes). In the binoculars the comet formed an almost equilateral triangle with  $\delta$  Persei and  $\gamma$  Persei. The comet was at about R.A.:  $3^h 52^m$ ; Dec.:  $+50^\circ$ . (See U64). I was uncertain about the tail; if visible, it was quite faint and just possibly pointing upward and to the right, but I was not certain of this.

Comet 17P (Holmes)  
mag. 2.4  
(1)





09  
05  
RSNO

Oct. 25  
19:30-19:35 UT

SC

Whitish-colored  
nucleus

Surrounding yellowish-greenish  
coloured coma

2007, Oct. 26, 2:30 UT View of Comet 17P/Holmes  
in the C-8 at 227.3X. No tail was evident.

2007 Th. Oct. 25 19:30-19:35 UT t  
Sun Og Os RSNO

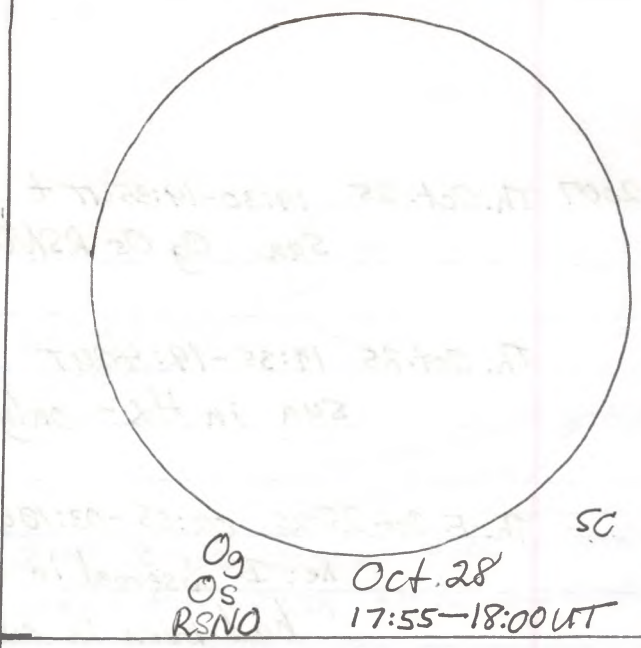
C-8, 32, 28, 20, 15.5  
T.O.F.

Th. Oct. 25 19:35-19:40 UT y P.S.T.; 20, 28, 20E, 15.5  
sun in Hdx - only hints of prominences on the solar disk

Th.-F. Oct 25-26 02:05-03:10 UT ss and y S?T5 (fml) ne; 18X501sb; C-8  
ne: I observed in order to see Comet 17P/Holmes which had been in outburst for over a day by now. With an extremely bright Full Moon, I could see the Summer Triangle in the W, Capella and  $\alpha$  Persei in the NE and when there was not some light cirrus cloud in the area I could also see the comet and  $\delta$  Persei below  $\alpha$  Persei. The bright 'near perigee' Full Moon was only about  $35^\circ$  from the comet; however, I could still see it with the unaided eye. I estimated it at mag. 2.3, slightly brighter than the previous night. It was about at R.A.:  $3^h 52^m$ ; Dec:  $50.2^\circ$ . It seemed to me to be moving northward perhaps from where I recalled seeing it the previous evening  
18X501sb: Comet 17P/Holmes with the nucleus appearing whitish and the surrounding coma appearing a greenish-yellowish colour. No tail was evident.

Comet 17P/Holmes  
mag. 2.3!  
(2)

C-8: I observed the comet with the C-8 and the 32mm, the 15.5mm, and the 8.8mm oculars for  $62.5\times$ ,  $129\times$ , and  $227.3\times$  respectively. (See diagram for appearance at  $227.3\times$ .) The nucleus was whitish and the coma was a greenish-yellowish colour, with no tail evident.



Perseus : →

- $\gamma$  Per (2.9)
- $\alpha$  Per (1.8)
- $\beta$  Per (2.1)
- $\delta$  Per (3.0)

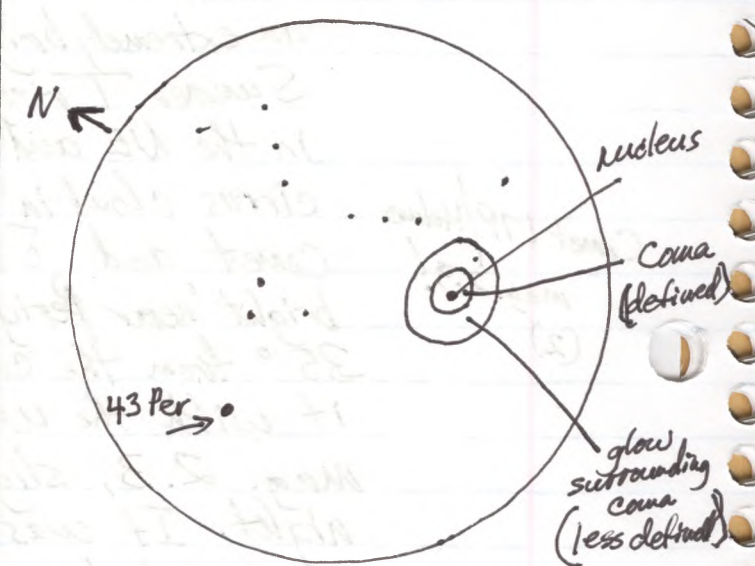
Comet 17P/Holmes (mag. 2.2) ↓

Naked-eye objects

20° above horizon → Capella ENE

Gibbous Moon only ○

30° from comet



2007, Oct. 29 01<sup>h</sup> 45<sup>m</sup> UT View to ENE  
Naked-eye objects.

2007, Oct. 29 1:50 UT View in the  
18X50 binoculars (Sec U39)

2007 Oct. 26 17:10-17:15 UT t C-8, 32, 28, 20, 15.5  
Sun Og Os RSNO T.O.F.

Oct. 26 17:15 - 17:25 UT y P.S.T.; 20, 28, 20E, 15.5  
Sun in Hx - a definite and somewhat spectacular prominence  
at the 9 o'clock position of the solar disk as seen in the eyepieces

Su. Oct. 28 17:55-18:00 UT t C-8, 32, 28, 20, 15.5  
Sun Og Os RSNO T.O.F.

Su. Oct. 28 19:25-19:30 UT y P.S.T.; 20, 28, 20E, 15.5  
Sun in Hx - only hints of prominences on the solar disk.

S-M. Oct. 28-29 01:25-02:00 UT y S?T3 (9ml) ne; 18x50isb  
ne: I observed under bright gibbous moonlight in  
order to see the naked-eye comet 17P/Holmes  
in its current outburst. With the moon only  
less than 3 days after Full Moon and only 30  
degrees from the comet, it was still easily visible in  
the constellation Perseus as the third brightest  
object in the constellation - after  $\alpha$  Per and  $\beta$  Per. I  
estimated it at mag. 2.2. (See diagram.)

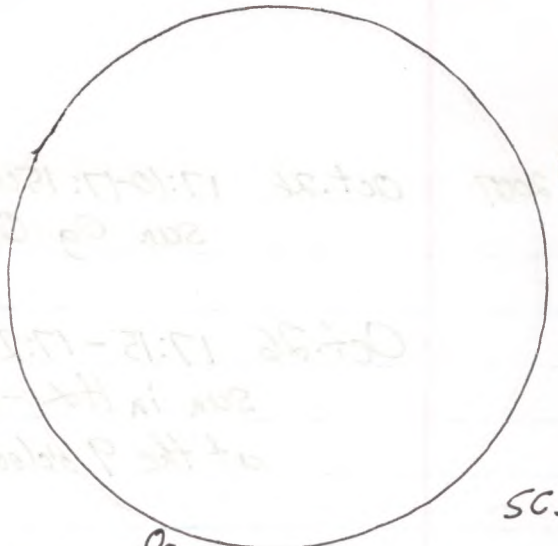
Comet 17P/Holmes  
Mag. 2.2!  
(3)

18x50isb: I observed M34 and Comet 17P/Holmes.  
The comet showed a nucleus, a perhaps slightly  
greenish coma - well defined; and a slightly  
glowing area surrounding the coma - a less defined  
area than the well-defined coma. Its position was  
approximately: R.A.:  $3^h 48^m$ ; Dec.:  $+50.5^\circ$  (See U.39).  
This current outburst by this comet is an  
amazing spectacle - changing the appearance of Perseus  
dramatically.



Sc

Og  
Os  
RSNO Oct. 31  
17:35-17:40UT



Sc.

Og  
Os  
RSNO Nov. 1  
17:35-17:40UT

Nov. 1 17:35-17:40UT  
③

18:25:15: I observed M34 and Comet #17/Haines.  
The comet shows a nucleus a perhaps slightly  
greater size - well defined; and a slightly  
of fainter area surrounding the core or less defined  
area than the well-defined core. Its position was  
approximately: RA: 3:48: Dec: 45.2 (see p. 31)  
This comet captured by this comet is in  
nearly opposite changing appearance of stars  
shortly.

2007 T.-W. Oct. 30-31 00:25-00:30 UT nd 5TT7

ne

Comet 17P/Holmes  
(4) mag. 2.2! Even though the sky was somewhat hazy, I observed and was able to see Comet 17P/Holmes very easily among the bright stars of Perseus and up about  $20^\circ$  above the ENE horizon. The comet seemed to be only slightly fainter than Beta Persei. I estimated the comet at mag. 2.2

05:05-05:10 UT nd 5TT6 (gm1) ne; 18X50LSb

ne: I observed again with the comet very high in the sky and near the zenith. The gibbous moon was up about  $45^\circ$  in the ESE near the middle of the constellation Gemini, with Castor and Pollux to its left and Mars also in Gemini, to its right. The moon was less than 2 days from Third Quarter. It was about  $45^\circ$  from the comet.

18X50LSb: In the binoculars the comet appeared large, and as before, with a well-defined coma, and outside the coma, an apparent faint glow from ~~an~~ additional sphere of material. Its position appeared to be approximately R.A.:  $3^h 47^m$ ; Dec.  $+50.6^\circ$ . (See U 39.)

W. Oct. 31 17:35-17:40 UT t  
Sun Og Os RSNO

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

W. Oct. 31 17:40-17:50 UT y

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

Sun in H $\alpha$  - one definite sharp prominence at  $3\frac{1}{2}$  o'clock position on the solar disk. (See diagram.)

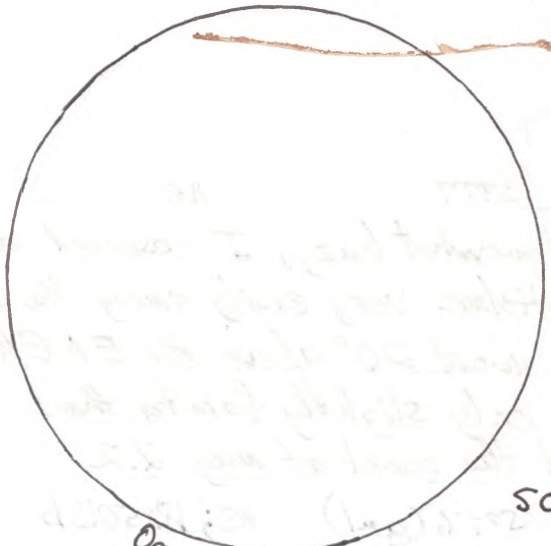
Th. Nov. 1 17:35-17:40 UT t  
Sun Og Os RSNO

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

Th. Nov. 1 17:45-17:50 UT nd

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

Sun in H $\alpha$  - hints of prominences on the solar disk.



SC

09  
03  
RSNO Nov 2  
17:35-17:40 UT

about 45° in the  
Gemin, with Cassiopeia  
in Gemin to the right. The main  
days from the center. It was  
the exact.  
In the  
with a  
on an  
sphere of  
RA: 3h 47m Dec: 75.4° (see 1131)

Nov 21 17:40-17:50 UT  
Nov 21 17:50-18:00 UT  
Nov 21 18:00-18:10 UT  
Nov 21 18:10-18:20 UT  
Nov 21 18:20-18:30 UT

Nov 21 17:35-17:40 UT  
Nov 21 17:40-17:50 UT  
Nov 21 17:50-18:00 UT  
Nov 21 18:00-18:10 UT  
Nov 21 18:10-18:20 UT  
Nov 21 18:20-18:30 UT

Nov 21 17:45-18:00 UT  
Nov 21 18:00-18:15 UT  
Nov 21 18:15-18:30 UT  
Nov 21 18:30-18:45 UT  
Nov 21 18:45-19:00 UT

2007 Th.-F. Nov. 1-2 00:45-03:45 UT 00 SPT 0  $\rightarrow$  (8-79) (Varied) ne; 20x100b; C-14

ne: After opening the observatory roof at about the time of sunset (at about 21:57 UT) I hoped to observe, and photograph Comet 17P/Holmes. However, when I started to observe at about 00:45 UT, the sky was completely overcast and remained so for about 40 to 45 minutes, except for occasional "holes" in the cloud. By 1:00 UT, it was starting to clear. Gradually I could see the Summer Triangle and then more and more stars. Comet 17P/Holmes was easily seen in Perseus, and I estimated it at mag. 2.2 - just slightly fainter than Beta Persei.

Comet 17P/Holmes  
mag. 2.2  
(5)

20x100b: Comet 17P/Holmes - still large with its distinctly large coma and still with a slightly glowing sphere beyond the coma. One star was distinctly seen through the coma. ~ also M36, M37, M38, M45.

C-14, 32: I observed the comet at 122.2X. The huge coma almost filled the field of view of the eyepiece. About 4 or 5 stars could be easily seen through the coma.

ph: I photographed the comet and the Pleiades using the 200mm f/2.8 lens guided on the C-14.

F. Nov. 2 17:35-17:40 UT t  
sun 09 05 RSNO

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

F. Nov. 2 17:40-17:45 UT y  
sun in H $\alpha$  - hints of prominences on the solar disk.

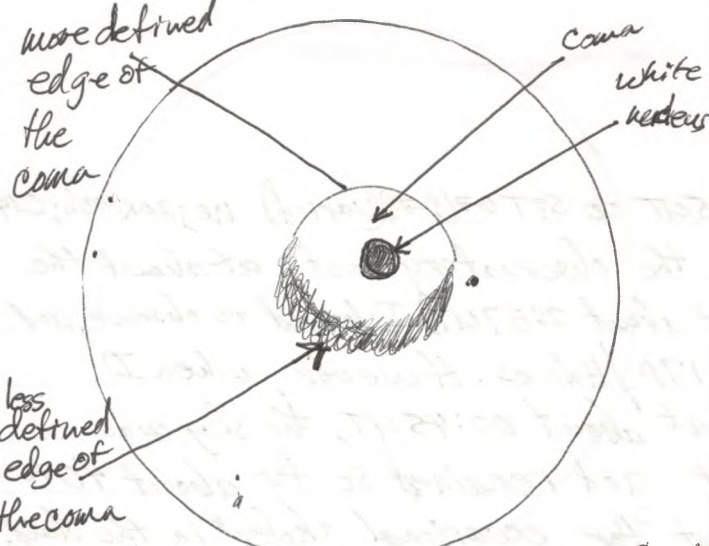
P.S.T.; 20, 28, 20E, 15.5

F.-S. Nov. 2-3 01:30-03:20 UT y SPT 9 ne; 18x50sb; C-8, 32

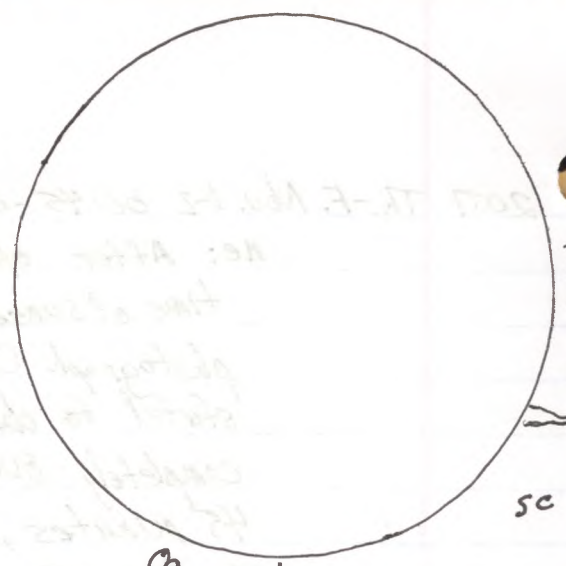
ne: stars of autumn; one bright meteor; Mars rising in the E among the trees near the end of the session.

18x50sb: M36, M37, M38, NGC 1647 and NGC 1746 in





2007 Nov. 3 03:00 UT. Appearance of Comet  
17P/Holmes in C-8 at 62.5X



03  
05  
RSNO Nov. 3  
17:10-17:15 UT

Comet 17P/Holmes  
mag. 2.2.  
(6)

Taurus, the Comet 17P/Holmes which I estimated at mag 2.2, perhaps still very slightly fainter than Beta Persei. It still appeared large in the binoculars; Kemble's Cascade, Double Cluster in Perseus, Stock 2, Plerades, Hyades, area of Uranus, area of Neptune.

C-8, 32: At the solar station I observed the comet with the C-8 at 62.5X. It appeared very large and one side of the edge of the coma appeared defined and "solid" whereas the area to the south appeared more "nebulous" or "poorly defined." (See the diagram.)

ph: I photographed the comet and its area in the sky using my 85 mm lens - unguided, on a tripod.

During the session there was a slight glow in the N - a glow may have been that of the Aurora Borealis.

Sa. Nov. 3 17:10-17:15 UT t  
sun Og Os RSNO

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

Sa. Nov. 3 17:15-17:25 UT y

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

Sun in Hx - short thin prominence at 4 o'clock position on the solar disk as seen in the normal field rotation.

Sa.-Su. Nov. 3-4 01:00-03:45 UT y SRT 9 ne; 18X5015b; C-8, 32, 28

ne: stars of autumn, Mars rising in the E. in the trees and above them in the last part of the session; also 1 meteor. Comet 17P/Holmes at mag 2.2.

Comet 17P/Holmes  
mag. 2.2  
(7)

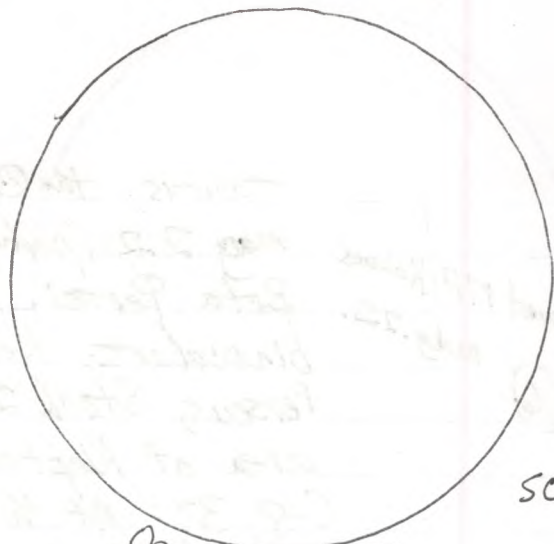
18X5015b: Comet 17P/Holmes still very prominent and large in the binoculars and forming a very nice triangle with Mirtak ( $\alpha$  Persei) and Delta Persei; Double Cluster in Perseus; Stock 2, NGC 654, NGC 663, M103, NGC 457,



Sc.

Og  
OS  
RSNO

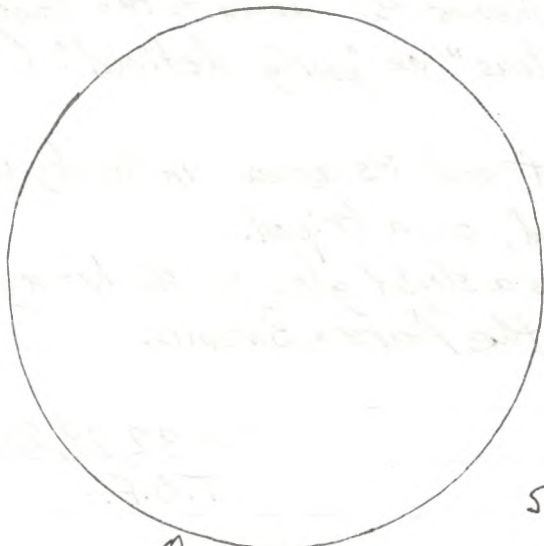
Nov. 4  
17:45-17:50UT



Sc

Og  
OS  
RSNO

Nov. 5  
17:00-17:05UT



Sc

Og  
OS  
RSNO

Nov. 6  
17:50-17:55UT

2007

M52, NGC 7789, M31, M32, M110, M33, M2, M15,  
area of Uranus, area of Neptune.

C-8, 32, 28: I observed the comet at 62.5X and  
71.4X. It was very large and still showed  
a sharply defined edge of the coma on one  
side and a fuzzy, less defined edge on  
the other side. That was where there was some  
evidence of a tail starting to form.

ph: I photographed the comet using the first focus  
of the C-8.

Su. Nov. 4 17:45-17:50 UT t  
sun Og Os RSNO

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

Su. Nov. 4 17:50-17:55 UT y

sun in Hx - hints of prominences on the solar disk.

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

S.-M. Nov. 4-5 00:24-00:29 UT nd S?T2

ne

I observed briefly even though the sky was generally  
overcast except for a limited area or two. In the  
E, Capella and the bright stars of Perseus could  
be seen. Comet 17P/Holmes could be easily seen. I  
estimated it at mag. 2.2.

Comet 17P/Holmes  
mag. 2.2

(8)

M. Nov. 5, 17:00-17:05 UT t  
sun Og Os RSNO

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

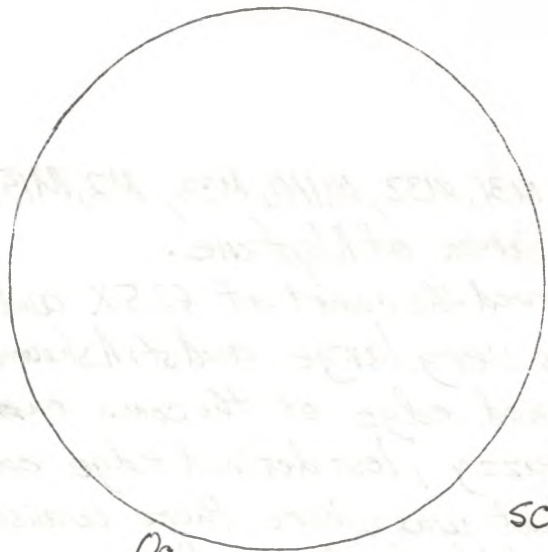
M. Nov. 5 17:15-17:20 UT y

sun in Hx - only hints of prominences on the solar disk

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

Tu. Nov. 6 17:50-17:55 UT t  
sun Og Os RSNO

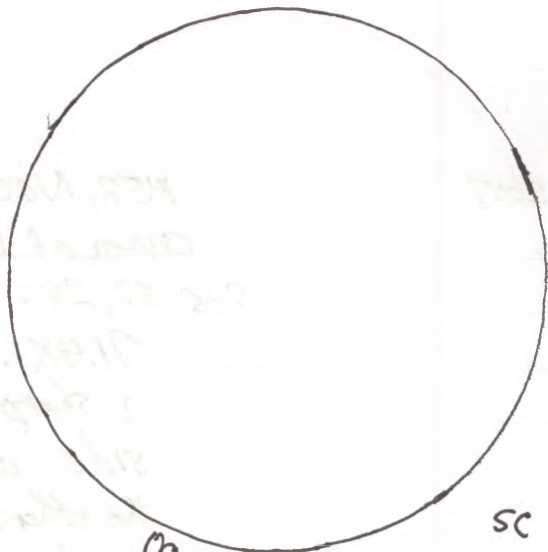
C-8, 32, 28, 20, 15.5  
T.O.F.



Og  
OS  
RSNO

Nov. 8  
18:30-18:35 UT

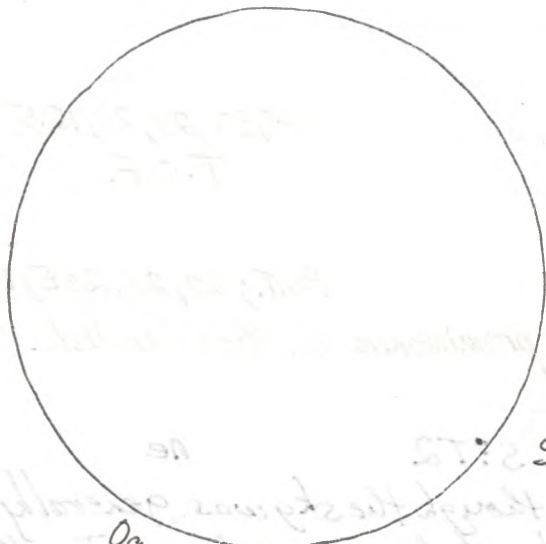
SC



Og  
OS  
RSNO

Nov. 9  
17:10-17:15 UT

SC



Og  
OS  
RSNO

Nov. 10  
17:15-17:20 UT

SC

2007 Tu. Nov. 6 17:55-18:00 UT y

P.S.T.; 20, 28

Sun in H $\alpha$  - only hints of prominences on the solar disk.

Th. Nov. 8 18:30-18:35 UT t

C-8, 32, 28, 20, 15.5

Sun Og Os RSNO

T.O.F.

Th. Nov. 8 18:35-18:40 UT y

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

Sun in H $\alpha$  - hints of prominences on the solar disk

F. Nov. 9. 17:10-17:15 UT t

P.S.T.; 32, 28, 20, 15.5

Sun Og Os RSNO

T.O.F.

F. Nov. 9 17:15-17:25 UT y

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

Sun in H $\alpha$  - numerous hints of prominences on the solar disk

F.-S. Nov. 9-10 06:30-06:40 UT nd S?T7

ne

After returning home from the R.A.S.C.-Kingston Centre meeting and watching TV for a while, I observed briefly under skies that were hazy and with only mediocre transparency. Mars was very high in the SE, in the central part of the constellation Gemini. Comet 17P/Holmes was noticeably further W. within the constellation Perseus than it had been the last time I had seen it. It remained about mag. 2.2, but was now even noticeable as a small ball to the naked eye, rather than a point source of light.

Comet 17P/Holmes  
mag. 2.2.

(9)

Sa. Nov. 10 17:15-17:20 UT t

C-8, 32, 28, 20, 15.5

Sun Og Os RSNO

T.O.F.

Sa. Nov. 10 17:20-17:25 UT y

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

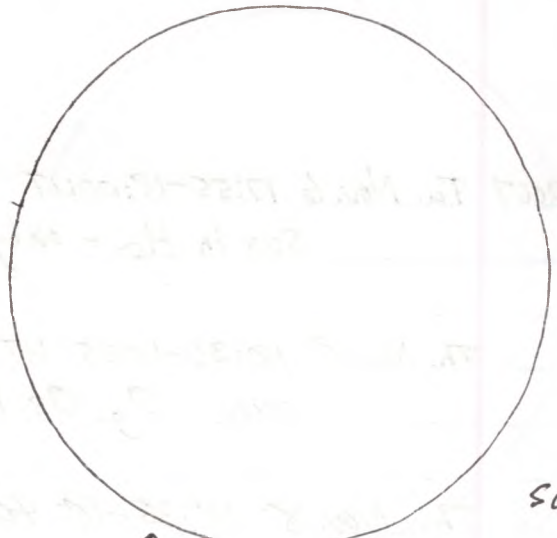
Sun in H $\alpha$  - hints of prominences on the solar disk.



sc.

09  
05  
RSNO

Nov. 11  
17:15-17:20UT



sc.

09  
05  
RSNO

Nov. 13  
17:25-17:30UT

Nov. 11 17:15-17:20UT

Nov. 11 17:15-17:20UT

Nov. 13 17:25-17:30UT

Nov. 13 17:25-17:30UT

Nov. 11 17:15-17:20UT

Nov. 11 17:15-17:20UT

Nov. 11 17:15-17:20UT

Nov. 11 17:15-17:20UT

Nov. 13 17:25-17:30UT

Nov. 13 17:25-17:30UT

Nov. 13 17:25-17:30UT

Nov. 13 17:25-17:30UT

2007 Sa-Su Nov 10-11 01:00-05:00 UT 00 58 T9-9.5 varied ne; 20X100b; C-14

Comet 17P/Holmes  
(10) mag. 2.2

ne: Having earlier in the evening seen Jupiter in the SW while standing on the dock, I opened the observatory's roof on a very clear evening. I saw the stars of autumn and later of winter, and Mars among the stars of the constellation Gemini. I saw two meteors. Comet 17P/Holmes was now fairly close to  $\alpha$  Persei and I still easily seen to be an extended object rather than just a point of light.

20X100b: area of  $\gamma$  Capricorni, M36, M37, M38, NGC 1931 in Auriga and not far from ~~M36~~  <sup>$\alpha$  Persei</sup>, Comet 17P/Holmes which was large and bright with one side of the coma more defined than the other, the side that had ~~the~~ begun to produce a tail.

C-14, 55: I observed the ~~comet~~ <sup>Comet</sup> at 71X. Even with this ~~rather~~ low power the coma was very large in the ~~everybody's~~ eyepiece, and about 5 stars were seen through the coma.

ph: I photographed the comet using the First Focus of the C-14. I also photographed the Pleiades and The Orion Nebula. I also photographed the Comet using the 200mm lens.

Su. Nov. 11 17:15-17:20 UT  $\pm$   
Sun Og Os RSNO

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

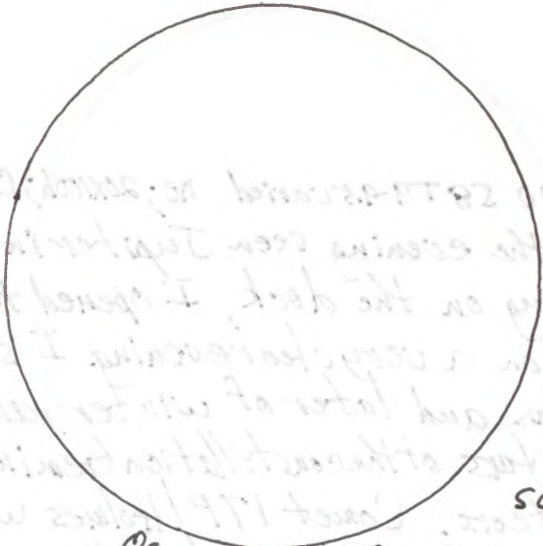
Su. Nov. 11 17:20-17:25 UT  $\gamma$   
Sun in Hoc - hints of prominences on the disk.

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

Tu. Nov. 13 17:25-17:30 UT  $\pm$   
Sun Og Os RSNO

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





09  
05  
RSNO

Nov. 15  
19:30-19:35 UT

SC

Correct 177  
10

*[Faint, mostly illegible handwritten notes in the middle-left section, possibly describing observations or data.]*

*[Faint, mostly illegible handwritten notes in the bottom-left section, possibly including dates and times.]*

2007 Tu. Nov. 13 17:30-17:35 UT y

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

sun in H $\alpha$  - hints of prominences on the solar disk

T.-W. Nov. 13-14 22:45-22:50 UT nd tw/

ne

I briefly observed during twilight to see when the Comet 17P/Holmes came into view. I thought that  $\alpha$ ,  $\beta$ , and  $\gamma$  Persei had come into view before the comet appeared quite close to  $\alpha$  Persei. I wanted to know if the comet was now as bright as, or brighter than,  $\beta$  Persei. I thought it was probably still at mag. 2.2, or very slightly fainter than  $\beta$  Persei when it is at its maximum brightness.

Comet 17P/Holmes  
(11) mag. 2.2

01:30-02:30 UT y S.T. 5-6 (poor generally) ne; 18X50 ISB  
ne: stars of autumn, or at least the ones bright enough to be seen with the relatively poor transparency. Though the transparency varied, it was generally not good.

18X50 ISB: Pleiades, Hyades, M36, M37, M38, Kemble's Cascade, Comet 17P/Holmes very large and bright with two stars visible through the coma, and an elongated nucleus, and evidence of a tail to the south; Double Cluster, Stock 2, NGC 663, M103, NGC 7789

Th. Nov. 15 19:30-19:35 UT y

C-8, 32

sun 0g 0s RSN0

Th. Nov. 15 19:35-19:40 UT y

P.S.T.; 20

sun in H $\alpha$  - hints of prominences on the solar disk.

Th.-F. Nov. 15-16 03:05-04:15 UT y S.T. 7-9 (varied) ne; 18X50 ISB

ne: stars of autumn and early winter, Mars in Gemini in the E., Comet 17P/Holmes at mag. 2.2 in Perseus and even nearer than previously to  $\alpha$  Persei - now perhaps less than  $1^\circ$  from that star.

Comet 17P/Holmes  
(12) mag. 2.2



SC

09  
05  
RSNO Nov. 16  
17:15-17:20UT

2007



2007

18X5015b: M35, M36, M37, M38, R Lep at about mag. 7, Plerades, Hyades, Comet 17P/Holmes near  $\alpha$  Persei and appearing very large and with a more defined edge of the coma on the N. side and a more "fuzzy" edge of coma on the S. side. One star was easily seen shining through the large coma; Keckler's Cascade; NGC 663, M103, NGC 457, NGC 281, NGC 7789, Double Cluster in Perseus, Stock 2.

ph: I photographed Orion and the comet using the 85mm f/1.8 lens unguided on a tripod. After taking about 5 photographs, I noticed that the sky was becoming cloudy. It quickly became overcast and I stopped observing.

F. Nov. 16 17:15-17:20 UT  $\epsilon$   
Sun O<sub>9</sub> O<sub>5</sub> RSNO

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

F. Nov. 16 17:20-17:25 UT  $\gamma$   
Sun in H $\alpha$  - hints of prominences on the solar disk.

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

F.-S. Nov. 16-17 03:10-03:15 UT nd S?T1

ne

After returning home from the Annual Kingston Centre Awards Banquet at the Days Inn in Kingston, I wanted to observe the comet but found the sky to be 90% overcast. It had been quite clear for most of the drive from Kingston with the almost First Quarter Moon to my left in the SW sky and the Summer Triangle of Stars in the W. At home I was able to see most of the stars of the Big Dipper and at times Capella, and also Mars and some of the stars of Gemini, but most of the sky was overcast.

05:20-05:35 UT nd S?T9

ne; 18X5015b

ne: On checking the sky two hours later I found that it was



2007

Comet 17P/Holmes  
(13) mag. 2.2.

very clear with very good transparency. The stars of winter were dazzling. Comet 17P/Holmes was near the zenith - in fact, about 5 degrees or so N. of the zenith and very near  $\alpha$  Persei. Orion was in the SSE. The comet was still about mag. 2.2.

18x50sb: Comet 17P/Holmes very large and looking like a great jellyfish. It was very bright in the binoculars. M35, M36, M37, M38, M42, M43, M44.

Sa. Nov. 17 17:40-17:45 UT t  
Sun  $\odot$   $\odot$ s RSWO

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

Sa. Nov. 17 17:45-17:50 UT y

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

sun in H $\alpha$  - hints of prominences on the solar disk.

Sa. Sun. Nov. 17-18 03:54-03:59 UT nd S7T9

ne; 18x50sb

ne: stars of early winter, Mars in the E in Gemini, setting First Quarter Moon amid the trees in the W; Comet 17P/Holmes very near  $\alpha$  Persei and at mag. 2.2; Orion in the SSE.

Comet 17P/Holmes  
(14) mag. 2.2.

18x50sb: Comet 17P/Holmes - very large in the binoculars and very bright, resembling a giant jellyfish;

M36, M37, M38, M42, M43, Double Cluster in Perseus,

Stock 2

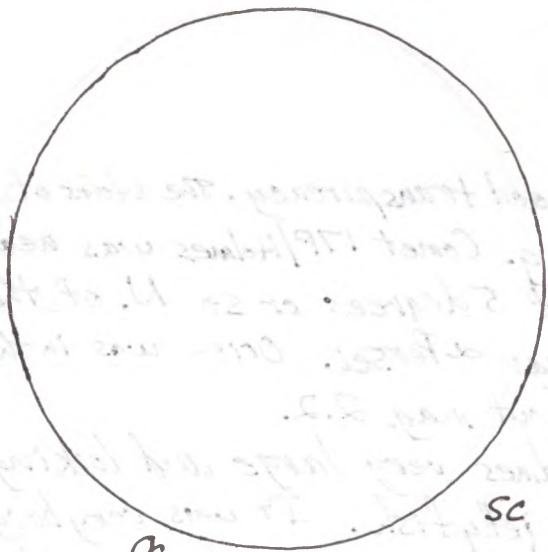
(4:30 - 5:30 a.m. E.S.T.)

m. 09:30 - 10:30 UT y S7T9-9.5 (!)

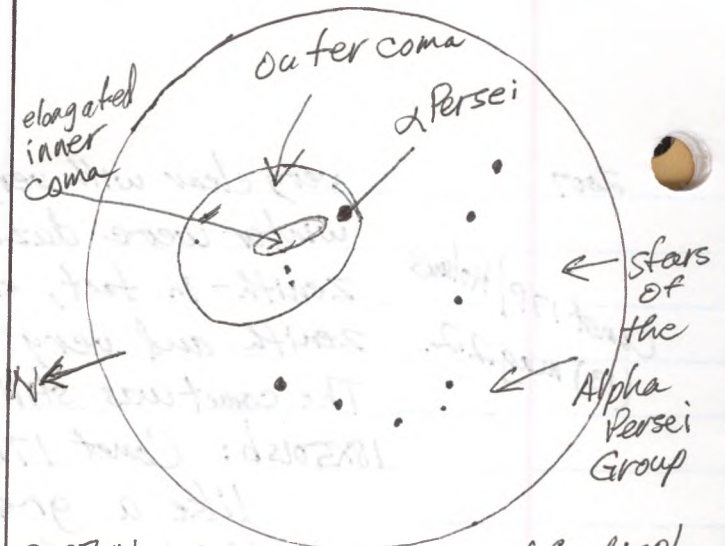
ne

I observed and tried to photograph the Leonid Meteor Shower which was scheduled to have peaked only a few hours before - at 04 hours UT. The Beginning of Astronomical Twilight was about when my observing session ended. I thought the shower was not very active while I was observing since I saw only about 4 Leonids and 2 sporadic meteors. Sky conditions were superb,

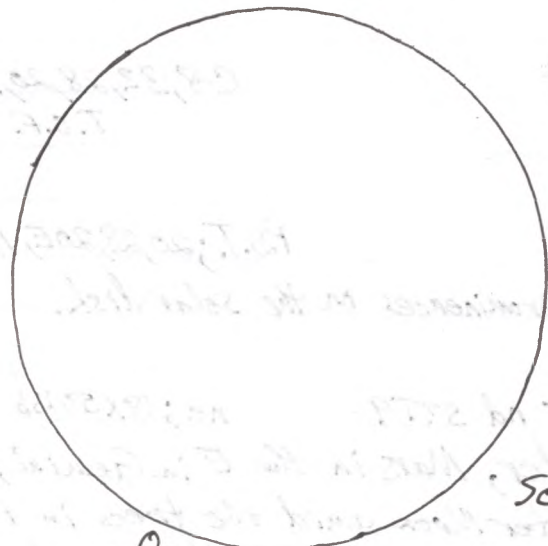
Leonid Meteor  
Shower



09  
05  
RSNO Nov. 18  
17:25-17:30UT



2007, Nov. 19: 04:35UT View of Comet 17P/Holmes  
in 18X50 binoculars



09  
05  
RSNO Nov. 20  
18:25-18:35UT

Comet 17P/Holmes  
(11/19/07)

2007

with excellent transparency.

ph: I photographed various areas of the sky hoping to catch a Leonid Meteor - using a 28mm lens and a 50mm lens.

Su. Nov. 18 17:25-17:30 UT t  
sun Og Os RSNO

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

Su. Nov. 18 17:30-17:35 UT y

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

sun in H $\alpha$  - hints of prominences on the solar disk.

S.-M. Nov. 18-19 04:30-04:45 UT nd S?T9

ne; 18x5015b

ne: stars of early winter, Mars in Gemini

18x5015b: Comet 17P/Holmes very large and bright in the binoculars with at least 4 stars visible through the outer coma. One of those stars was  $\alpha$  Persei. The inner coma appeared elongated. (See diagram.) The comet was centred at about R.A.:  $3^h 24.8^m$ ; Dec.:  $50.1^\circ$ . I estimated its magnitude at 2.3. It was more difficult to see naked-eye because of being so near the bright star  $\alpha$  Persei: Also seen were Keable's Cascade, M35, M36, M37, M38, M42, M43.

Comet 17P/Holmes  
(15) mag. 2.3

Tu. Nov. 20 18:20-18:25 UT t  
sun Og Os RSNO

C8, 32, 28, 20, 15.5

Tu. Nov. 20 18:25-18:35 UT y

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

sun in H $\alpha$  - hints of prominences on the solar disk.

F.-S. Nov. 30 - Dec. 1 01:55-02:00 UT nd S?T9

ne; 18x5015b

ne: Under windy and cold conditions I observed with binoculars and naked-eye under clear, transparent





0g  
05  
RSNO

Dec. 1.  
17:20-17:25 UT

sc



0g  
05  
RSNO

Dec. 5  
17:15-17:20 UT

sc

*[Faint, illegible handwritten notes in the middle section of the page, spanning across the vertical line.]*

*[Faint, illegible handwritten notes in the bottom section of the page, spanning across the vertical line.]*

2007

Comet 17P/Holmes  
(16) mag. 4.5

skies. I observed stars of autumn and early winter in the N, E, and S. Comet 17P/Holmes was clearly seen naked-eye, though I had not seen it in 12 days. Before it had been seen "to the left of the star Mirfak ( $\alpha$  Persei)". Now in the NE sky it appeared "to the right of the star Mirfak ( $\alpha$  Persei)". I would estimate it at mag. 4.5.

18x50sb: Mars, M35, M36, M37, M38, Kemble's Cascade, M81, M82, Pleiades, Hyades, Comet 17P/Holmes very large and very bright in the binoculars with overside of the huge outer coma still more well defined than the other side. The nucleus still appeared very elongated and a solid white in colour - in contrast to the amorphous comet's coma which allowed starlight to shine through it.

Sa. Dec. 1 17:20-17:25 UT 00 floor  
sun 09 05 RSN0

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

Sa. Dec. 1 17:25-17:30 UT 00 floor

P.S.T.; 20

sun in Hx - only hints of prominences on the solar disk.

T-W. Dec. 4-5 04:05-04:07 UT nd S? T8.5

ne

Comet 17P/Holmes  
(17) mag. 4.5

I briefly observed after noticing that the sky was fairly clear. Perseus was near the zenith and I quickly saw that Comet 17P/Holmes could be seen naked-eye and about 2 degrees from  $\alpha$  Persei. It was at about mag. 4.5

W. Dec. 5 17:15-17:20 UT 00 floor  
sun 09 05 RSN0

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

W. Dec. 5 17:20-17:25 UT 00 floor

P.S.T.; 20, 28, 20E, 15.5  
sun in Hx - hints of prominences on the solar disk.



2007 W.-Th. Dec. 5-6 01:01-01:15 UT nd S?T9-9.5 ne; 18X50ISB

ne: stars of late autumn and early winter, Mars in Gemini

18X50ISB: M35, M36, M37, M38, M81, M82, Kemble's Cascade,

Comet 17P/Holmes  
(18) mag. 4.6

Comet 17P/Holmes which had also been seen easily naked-eye, and estimated at mag. 4.6.

It appeared huge in the binoculars, almost certainly more than  $\frac{1}{2}^\circ$  in diameter. The elongated defined nucleus was prominent. - also Pleiades, Hyades, Mars, and the ring of stars near Polaris.

Later, between 01:54 and 01:57 UT, I tried to observe Comet 8P/Tuttle which according to the map in Sky and Telescope, January 2008, page 73, was roughly in the area between Polaris and  $\gamma$  Cephei. I looked carefully and thought I perhaps saw an indication of it, but I was not certain of seeing it. Perhaps it was just not bright enough to be seen with the aperture I was using.

Th.-F. Dec. 6-7 03:15-03:30 UT nd S?T9-9.5! ne; 18X50ISB

ne: stars of late autumn and early winter, Mars in the

E; Comet 17P/Holmes in, or extremely near, the zenith and about  $2^\circ$  from Mirfak - estimated at mag. 4.8.

Comet 17P/Holmes  
(19) mag. 4.8

18X50ISB: Comet 17P/Holmes - huge in the binoculars with the inner nucleus still well defined; the  $\delta$  Persei grouping of stars, M34, M35, M36, M37, M38, M42, M43, NGC 2244, Levy 159 (NGC 2264) - The Christmas Tree Cluster, M81, M82, the Polaris Engagement Ring of stars, NGC 1647 in Taurus.

Sa.-Su. Dec. 8-9 02:20-02:35 UT nd S?T9 ne; 18X50ISB

ne: stars of early winter; Mars in the E; Comet 17P/Holmes still easily seen naked-eye, but



2007  
Comet 17P/Holmes  
(20) mag. 5.0

a bit fainter than previously and about  $2\frac{1}{2}^\circ$  from Mirfak - at about mag. 5.0. It was very near the zenith.

18x50ISb: Alcor and Mizar, M81, M82, Pleiades, Hyades, NGC 1677 N. of Aldebaran, and a bit further N. NGC 1746, (See U. 134.) Double Cluster in Perseus, Stock 2, Kemble's Cascade, Comet 17P/Holmes - huge in the binoculars with a good collection of stars shining through the coma,  $\alpha$  Persei Association of stars, M35 and NGC 2158, M36, M37, M38, Hyades, Pleiades briefly looked in the area of Polaris and  $\gamma$  Cephei for the chance of possibly seeing Comet 8P/Buttle, but was not sure of seeing it.

W.-Th. Dec. 12-13 00:30-00:35 UT FL: la S7T5(1/p) ne; 18x50ISb  
ne: thin crescent moon in the W.; Capella in the NE and Cassiopeia high in the NE and the stars of Perseus between them, but I was not sure of seeing Comet 17P/Holmes with the unaided eye.

18x50ISb: The Alpha Persei Association of stars, Comet 17P/Holmes seen quite easily, but it did not appear as defined or clear as it had previously under darker skies. By comparison it was certainly more nebulous. I would estimate it at mag. 6.0. It was about 3 degrees NW from Alpha Persei (Mirfak).

Comet 17P/Holmes  
(21) mag. 6.0

6:30 - 6:35 a.m. E.S.T.  
M.: 11:30 - 11:35 UT FL: in and outside lanai twl ne; ~~18x50ISb~~

ne: In twilight I observed the N. and E. sky seeing brilliant Venus and in the N. the Big Dipper and the stars Polaris and Kochab. In the E, besides Venus, Arcturus and Spica were easily seen.

5:55 - 6:00 a.m. E.S.T.  
Th.-F. Dec. 13-14 M. 10:55 - 11:00 UT FL: in & outside lanai twl

Amid scattered clouds I saw brilliant Venus well up in the E,



2007

and the Big Dipper in the N., and Arcturus and Spica in the NE and E.

Su.-M. Dec. 16-17 <sup>5:52-5:57 a.m. E.S.T.</sup> 10:52-10:57 UT FL: in + outside lanai ne

- Venus extremely brilliant about 20° above the E. horizon, stars of the Big Dipper in the N., Polaris and Kochab, stars of constellation Leo and Saturn near the zenith, Castor and Pollux and a very bright Mars in the W.

M.-T. Dec. 17-18 03:20-03:25 UT FL: la SPT5 (gml; 1/p) ne

- bright First Quarter Moon high in the SW; Orion high in the ESE, Sirius, Procyon, Mars in Gemini - all in the E., Capella well up in the ENE; Pleiades quite near the zenith.

<sup>5:32-5:40 a.m. E.S.T.</sup> M. 10:32-10:40 UT FL: in + outside lanai ne

Venus up about 20° above the E. horizon, Arcturus and Spica in the E., bright stars of the Big Dipper in the N., Polaris and Kochab, Mars very bright in the W., Saturn and the stars of the constellation Leo near the zenith.

T.-W. Dec. 18-19 04:05-04:10 UT FL: la SPT5 (gml; 1/p) ne

- bright First Quarter Moon high in the SW; Orion high in the ESE; Sirius, Procyon, Mars in Gemini, Castor and Pollux - all in the E. Capella in the NE, Pleiades near the zenith.

<sup>5:30-5:35 a.m. E.S.T.</sup> M. 10:30-10:35 UT FL: in lanai ne

Venus and Arcturus and Spica seen periodically among the clouds in the E. sky.

W.-Th. Dec. 19-20 04:10-04:15 UT FL: la SPT4 (gml; 1/p) ne

- very bright gibbous moon very high in the SW; Orion high in





2007

the SE; Sirius, Procyon, Mars in Gemini, Castor and Pollux - all in the E. Aldebaran near the zenith.

<sup>5:55-6:00 a.m. E.S.T.</sup>  
M. 10:55-11:00 UT FL: in + outside lanai ne

Venus, Arcturus, and Spica in the E, stars of the Big Dipper high in the N.; some bright stars of the constellation Leo near the zenith, Saturn also; Mars in the W. Some fog was present and it appeared to be thickening.

F.-S. Dec 21-22 02:52-02:57 UT FL: la S? T4-5 (gul; l/p) ne

I observed briefly with the extremely bright gibbous moon very close to the zenith, and only about 46 hours before the exact time of Full Moon. Also seen were the bright stars of Orion high in the SE, Sirius and Procyon in the E.; bright Mars well up in the E; Castor and Pollux in the NE.

<sup>6:00-6:05 a.m. E.S.T.</sup>  
M. 11:00-11:05 UT FL: in + outside lanai ne

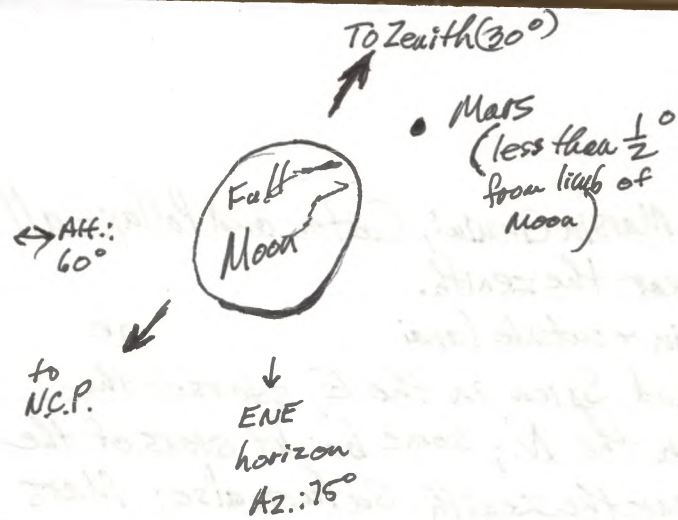
Venus, Arcturus and Spica in the E; stars of Big Dipper and Polaris and Kochab in the N.; constellation Leo and Saturn near the zenith; brilliant Mars, on a date between its closest approach (Dec. 19) and opposition (Dec. 24) in the W.

Sa.-Su. Dec. 22-23 03:45-03:50 UT FL: la S? T4 (ful; l/p) ne

- Orion's bright stars high in the SE, Sirius, Procyon, and Mars in the E; an extremely bright Full Moon near perigee and near the zenith, Mars about 15° E. of the Moon, Aldebaran about 10° WSW of the Moon. Since it was near the peak of the Ursid

No Ursid  
Meteor seen  
with certainty.

Meteor Shower I thought I might see one or two, but was not sure of doing so. About 3 hours earlier during twilight I had also looked northward with the same expectation, but also was not sure of seeing any



2007, Dec. 24, 3:00 UT. View toward  
 Full Moon at Azimuth  $75^\circ$ ; Altitude  $60^\circ$

2007

with certainty, even though I did see some flashing lights that might have been from tumbling satellites or even from airplanes.

S-M. Dec. 23-24 02:52-03:06 FL: la S?T4 (fml; l/p) ne

- brilliant Full Moon about  $30^\circ$  from the zenith and at azimuth about  $75^\circ$  and only about <sup>1 hour and</sup> 40 minutes ~~before~~ <sup>after</sup> the instant of Full Moon (listed as 1:16 UT) with Mars very close to the moon - less than  $\frac{1}{2}^\circ$  from the near edge of the lunar disk (See diagram).
- also bright stars of Orion in the SE; Sirius and Procyon in the E.; Castor and Pollux in the NE and Capella above them. (The Observer's Handbook listed the Moon-Mars conjunction at 3<sup>h</sup> UT with Mars  $0.9^\circ$  S. of the apparent centre of the lunar disk.

M. 5:46-5:56 a.m. EST  
10:46-10:56 UT FL: in+outside la ai S?T4 (fml; l/p) ne

- Venus, Arcturus, Spica in the E.; stars of the Big Dipper, Polaris, and Kochab in the N.; Full Moon up about  $25^\circ$  in the W. with Mars very clearly seen 2 degrees below it; constellation Leo near the zenith with Saturn below its brightest stars.

T-W. Dec 25-26 5:42-5:50 a.m. E.S.T.  
10:42-10:50 UT FL: in+outside la ai S?T4 ne

Venus and Arcturus and Spica in the E.; the stars of the Big Dipper high in the N. and lower in the N, Polaris and Kochab, the brightest of the stars of the constellation Leo near the zenith with the planet Saturn, the very bright gibbous moon about  $30^\circ$  W. of the zenith, and a bright Mars seen among the trees to the W.



2007 W.-Th. Dec. 26-27 00:30-01:50 UT FL: la s9T 5.5 (1/p) ne; 18X50ISb

ne: Orion rising in the E, Mars in the ENE, Capella, Perseus and Cassiopeia in the NE, Pegasus high in the W, Andromeda near the zenith

18X50ISb: M42 and M43, NGC 2244, areas of Orion, Comet 17P/Holmes still in Perseus and much larger even than the last time I saw it, and more nebulous and less defined along the edges of the coma - at about magnitude 6.5, Pleiades, Hyades,  $\times$  Persei association of stars, Perseus Double Cluster, Stock 2, Kenble's Cascade, M31

Comet 17P/Holmes  
(22) mag. 6.5.

<sup>5:42-5:50 a.m. E.S.T.</sup>  
m. 10:42-10:50 UT FL: in + outside lens 5: T 2 (1/p; clouds) ne

Venus and Arcturus and Spica in the E. among the clouds; the bright gibbous moon high in the W. about 30° W. of the zenith.

Th.-F. Dec. 27-28 01:50-03:10 UT FL: la s9T 5 ne; 18X50ISb

ne: stars of winter; Mars well up in the ENE.

18X50ISb: M42, M43, area of R Lep, but not absolutely sure of seeing it, areas of Orion, NGC 2244, Mars, Pleiades, Hyades, M35, M36, M37, M38,  $\times$  Persei Association of stars, Comet 17P/Holmes - very nebulous and ill-defined and huge with a low surface brightness but with an integrated magnitude of perhaps 6.7, M31; searched for Comet 81/Tuttle in the area of  $\gamma$  Andromedae and  $\nu$  Andromedae

Comet 17P/Holmes  
(23) mag. 6.7.

(See map on page 74 of January 2008 Sky and Telescope), but was not sure of seeing it.

<sup>5:48-5:54 a.m. E.S.T.</sup>  
m. 10:48-10:54 UT FL: in + outside lens 5: T 4 (1/p; spigul) ne

- Venus and Arcturus and Spica in the E, stars of the Big Dipper in the N, and Polaris and Kochab; near the zenith the very bright gibbous moon about 3° ESE of Regulus and about 6° WSW of Saturn.



2007 F.-S. Dec. 28-29 01:10-02:20 UT FL: la SPT 5 (1/p) ne; 18X50 ISB

ne: stars of winter; Mars well up in the ENE

18X50 ISB: Comet 8P/Tuttle slightly NW of the star

47 Andromedae at about RA:  $1^h 23^m$ ; Dec:  $37.9^\circ$  - somewhat

nebulous and at about mag. 6.4; Comet 17P/Holmes still in

Perseus and extremely large and very nebulous, and

at about mag. 6.8; M42, M43, areas of Orion, Rlep-

quite faint - at about mag. 7.2. NGC 2244, Pleiades,

Hyades, M35, M36, M37, M38, Double Cluster in Perseus,

Stock 2, Kemble's Cascade, M34, M31, M41, the

$\alpha$  Persei Association of stars, NGC 1677 in Taurus

Comet 8P/Tuttle  
(1) mag. 6.4  
Comet 17P/Holmes  
(24) mag. 6.8

S.-M. Dec. 30-31 01:45-02:55 UT FL: la SPT 0.1 (overcast) ne; 18X50 ISB

ne: I waited for skies to clear, but it was overcast.

I saw one star naked-eye in the E. amid the clouds. I had hoped to see Comet 8P/Tuttle near M33.

18X50 ISB: Amid the clouds I saw one star with the binoculars.

2008 T.-W. Jan. 1-2 m. 6:10-6:15 a.m. EST. 11:10-11:15 UT FL: in + outside larai twl ne

- Arcturus and Spica in the E and well below them Venus, with the crescent moon about  $12^\circ$  below and to the left from Spica; the stars of the Big Dipper high in the N; Polaris and Kochab in the N; Vega well up in the NE; the bright stars of the constellation Leo and the planet Saturn very high in the Sand, in fact, near the zenith.

W.-Th. Jan. 2-3 01:00-01:15 UT FL: la SPT 5 (1/p) ne; 18X50 ISB

ne: stars of winter; Mars in the E. The temperature was "cold for Florida" and it was somewhat windy; in



Arcturus

Spica

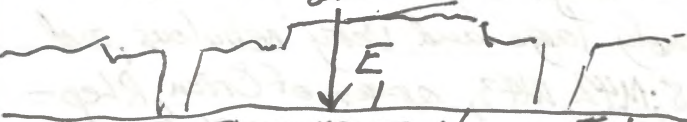
28°

22°

Venus

20°

E



2008, Jan. 3 10:48 UT View to E. showing Venus, Crescent Moon, Arcturus, and Spica

2008

Comet 8P/Tuttle  
(2) mag. 6.0  
Comet 17P/Holmes  
(25) mag. 6.8.

fact, there were predictions that the temperature would fall below freezing during the night - even to  $-1^{\circ}\text{C}$ .

18X50ISb: Comet 8P/Tuttle which was about  $2^{\circ}$  from the star  $\gamma$  Arietis. It may have been at about mag. 6.0. In the binoculars it was somewhat nebulous, but more well defined than Comet Holmes had been; Comet 17P/Holmes - still in Perseus and still immense and very nebulous - perhaps at mag. 6.8; M34, M42, M43, Kente's Cascade, area of R Lep., Mars.

5:48-10:54 UT FL: in + outside lavae 5? T5 (l/p) ne  
m. 10:48-10:54 UT FL: in + outside lavae 5? T5 (l/p) ne  
- Venus, Arcturus and Spica in the E. with the Crescent Moon among them (See diagram). the constellation Leo with Saturn very high in the S. and near the zenith; the Big Dipper very high in the N. and Polaris and Kochab; Vega about  $18^{\circ}$  above the horizon in the NE; Castor and Pollux well up in the W.

Th-F. Jan. 3-4 01:30-02:30 UT FL: la 58T1-4 (varied-clouds; l/p) ne; 18X50ISb  
ne: At first the sky was 95% overcast; then breaks in the clouds developed and clear areas emerged. Orion, Mars, and other stars could be seen at various times

Comet 8P/Tuttle  
(3) mag. 6.0.

18X50ISb: Comet 8P/Tuttle at about mag. 6.0 - almost on a line produced by extending the line from  $\beta$  Arietis to  $\gamma$  Arietis - somewhat nebulous; M36, M37, M38, M41, M42, M43, R Lep (Hind's Crimson Star) at about mag. 7.0 and clearly seen in the binoculars, Pleiades, Hyades, NGC 1647 in Taurus,  $\alpha$  Persei Association of stars.

Comet 17P/Holmes  
(26) mag. 7.0

03:30-03:45 UT FL: la 58T 3-4 (varied-clouds; l/p) 18X50ISb  
Comet 17P/Holmes still in Perseus and very nebulous at about

Arcturus

Spica

40°

12°

20°

Cr. Moon.

Venus

2008 Jan. 4, 10:55 UT View to the E, showing Venus and Crescent Moon.

Count 28/TuHr  
② May 12  
Count 17/Hr  
② May 12

Count 28/TuHr  
② May 12

Count 17/Hr  
② May 12

2008

mag. 7.0 and fairly difficult to see especially because of the clouds in the area; NGC 2244, M35.

05:30-06:15 + 06:30-6:40 UT FL: lanai S? T2-5 (varied cloud) ne  
I observed, looking toward the NE, hoping to see some Quadrantid Meteors, but there was a considerable amount of cloud, especially in the early part of the session. I saw very little activity, possibly only one, but I was not certain of it. Without the scattered clouds, I might have seen more activity.

Considerable cloud for near-peak of Quadrantids

<sup>5:40 - 6:10 a.m. E.S.T.</sup>  
M10:40-11:10 UT FL: in + outside lanai S? T4-5 (some cloud; 1/p) ne

2 Quadrantids!

With beginning of Astronomical Twilight occurring at 10:55 UT, I observed toward the NE, hoping to see some Quadrantids. I saw 2, one of them about mag. -3 and quite long and up near Spica. Also seen were Arcturus, Spica, Venus and the Crescent Moon in the E. (See diagram) and the Big Dipper and Polaris and Kochab in the N. and the bright stars of the constellation Leo and Saturn high in the S. near the zenith and Castor and Pollux in the W. The Observer's Handbook had listed the Quadrantid peak at 7<sup>h</sup> UT; Ottewell's Astronomical Calendar had listed it at 6<sup>h</sup>40<sup>m</sup> UT

F.-S. Jan. 4-5 02:30-03:30 UT FL: la SQT5 (1/p) ne; 18X50ISB

ne: Mars in the E; stars of winter under skies that were transparent except for the light pollution

18X50ISB: Comet 8P/Tuttle - easily found in a line extending from the "line" joining  $\beta$  Arietis and  $\gamma$  Arietis, still about mag. 6.0; areas of Orion, M42, M43, area near  $\lambda$  Orionis, Rlep - very red at about mag. 7.0, M44, NGC 2244, the Christmas Tree Cluster, area of M46 and M47, Comet 18P/Holmes - in the same binocular field as M34, <sup>and very</sup>

Comet 8P/Tuttle  
(4) mag. 6.0

Comet 18P/Holmes  
(27) mag. 7.0



2008

therefore, about  $3^\circ$  from M34, and very diffuse and nebulous, and I estimated it at about mag. 7.0; the  $\alpha$  Persei Association of stars, Kemble's Cascade, the Persaus Double Cluster, Stock 2, M35, M36, M37, M38, Mars, Pleiades, Hyades, NGC 1647, area of M1

S.M. Jan. 6-7 03:40-04:20 UT FL: <sup>la</sup> S7T5 (1/p) ne; 18X5015b  
ne: stars of winter; Mars about  $10^\circ$  E. of the zenith; Saturn up about  $15^\circ$  in the E and below Regulus.

18X5015b: area below  $\beta$  and  $\gamma$  Arietis, with the hope of seeing Comet 8P/Tuttle but was not definitely sure of seeing it; areas of Orion, M42, M43, R Lep - very red and about at mag. 7.0; Mars, Pleiades, Hyades, NGC 1647 and NGC 1746 - both in Taurus; M44, M67 in Cancer,  $\alpha$  Persei Association of stars, Comet 18P/Holmes - very nebulous and with very low surface brightness - perhaps at mag. 7.0 and about  $3^\circ$  from M34, Double Cluster in Perseus, Stock 2, Kemble's Cascade of stars in Camelopardalis, Regulus and R Leonis - a bright red in colour and at about mag. 6.5, Saturn, M46 and M47 - both about  $14^\circ$  E of Sirius.

Comet 18P/Holmes  
(28) mag. 7.0

5:30-5:35 a.m. E.S.T.  
M. 10:30-10:35 UT FL: in laia S7T2 (considerable cloud, 1/p) ne  
With the considerable amount of cloud, I was able to see only a few objects: Venus and Arcturus and Spica in the E., and very high in the N. the stars of the Big Dipper.

M.-T. Jan. 7-8 01:30-02:45 UT FL: <sup>clouds</sup> la S7T4-5 (1/p; scattered) ne; 18X5015b  
ne: stars of winter with the Pleiades near the zenith and Mars very high in the E. and about  $3^\circ$  from  $\beta$  Tauri. There were intermittently scattered clouds during the

Arcturus

Spica



2008, Jan. 8, 10:30 UT. View to E showing Venus, Arcturus, stars of Scorpius

Jan 8 10:30 UT  
2008

2008

observing session.

18x5015b: searched for Comet 8P/Tuttle in the wsw, but was not sure of seeing it; M31, Pleiades, Hyades, NGC 1647 and NGC 1746 in Taurus, areas of Orion, Rlep - at about mag. 7.0; M42, M43, NGC 2244, Plaskett's Star, Christmas Tree Cluster, M41, M35, M36, M37, M38,  $\alpha$  Persei Association of Stars, M34, Comet 17P/Holmes - Very nebulous and centred about  $3.5^\circ$  from M34 and about at mag. 7.0;

Comet 17P/Holmes  
(29) mag. 7.0.

Kemble's Cascade, Mars.

5:28-5:38 A.M.E.S.T.  
M. 10:28-10:38 UT

FL: in + outside lanai S:T5 (1/p) ne  
Venus about  $12^\circ$  above E. horizon, and about  $6^\circ$  N. of the star Antares. (See diagram.) Other stars of Scorpius were visible. (The Astronomical Calendar listed Venus as being  $6.4^\circ$  N. of Antares at 1hr. UT on Jan. 8.) Arcturus, Spica also high in the E, Vega about  $12^\circ$  above the NE. horizon, the Big Dipper very high in the N., Castor and Pollux well up in the W., the bright stars of the constellation Leo and the planet Saturn very high in the S. and near the zenith.

T.-W. Jan. 8-9 02:20-03:42 UT FL: la S:T5 (1/p) ne; 18x5015b  
ne: stars of winter in the SE, with Aldebaran near the zenith by the end of the session, Mars very high in the E, Saturn up in the E by the end of the session or shortly thereafter.

18x5015b: Pleiades, Hyades, scanned the SW below Aries in hope of a chance sighting of Comet 8P/Tuttle, but was not sure of seeing it; Rlep (Hind's Crimson Star) very red and about mag. 7.0, areas of Orion, M42, M43, NGC 2244, Plaskett's Star, S Mon and the



Small fragments  
of paper.

Shaping section.

1950s: worked for  
cut of 200 ft; 100 ft  
1951-1952 and 1953 in Texas  
1954-1955 and 1956 in Texas  
1957-1958 and 1959 in Texas  
1960-1961 and 1962 in Texas  
1963-1964 and 1965 in Texas  
1966-1967 and 1968 in Texas  
1969-1970 and 1971 in Texas  
1972-1973 and 1974 in Texas  
1975-1976 and 1977 in Texas  
1978-1979 and 1980 in Texas  
1981-1982 and 1983 in Texas  
1984-1985 and 1986 in Texas  
1987-1988 and 1989 in Texas  
1990-1991 and 1992 in Texas  
1993-1994 and 1995 in Texas  
1996-1997 and 1998 in Texas  
1999-2000 and 2001 in Texas  
2002-2003 and 2004 in Texas  
2005-2006 and 2007 in Texas  
2008-2009 and 2010 in Texas  
2011-2012 and 2013 in Texas  
2014-2015 and 2016 in Texas  
2017-2018 and 2019 in Texas  
2020-2021 and 2022 in Texas  
2023-2024 and 2025 in Texas

1950s: worked for  
cut of 200 ft; 100 ft  
1951-1952 and 1953 in Texas  
1954-1955 and 1956 in Texas  
1957-1958 and 1959 in Texas  
1960-1961 and 1962 in Texas  
1963-1964 and 1965 in Texas  
1966-1967 and 1968 in Texas  
1969-1970 and 1971 in Texas  
1972-1973 and 1974 in Texas  
1975-1976 and 1977 in Texas  
1978-1979 and 1980 in Texas  
1981-1982 and 1983 in Texas  
1984-1985 and 1986 in Texas  
1987-1988 and 1989 in Texas  
1990-1991 and 1992 in Texas  
1993-1994 and 1995 in Texas  
1996-1997 and 1998 in Texas  
1999-2000 and 2001 in Texas  
2002-2003 and 2004 in Texas  
2005-2006 and 2007 in Texas  
2008-2009 and 2010 in Texas  
2011-2012 and 2013 in Texas  
2014-2015 and 2016 in Texas  
2017-2018 and 2019 in Texas  
2020-2021 and 2022 in Texas  
2023-2024 and 2025 in Texas

1950s: worked for  
cut of 200 ft; 100 ft  
1951-1952 and 1953 in Texas  
1954-1955 and 1956 in Texas  
1957-1958 and 1959 in Texas  
1960-1961 and 1962 in Texas  
1963-1964 and 1965 in Texas  
1966-1967 and 1968 in Texas  
1969-1970 and 1971 in Texas  
1972-1973 and 1974 in Texas  
1975-1976 and 1977 in Texas  
1978-1979 and 1980 in Texas  
1981-1982 and 1983 in Texas  
1984-1985 and 1986 in Texas  
1987-1988 and 1989 in Texas  
1990-1991 and 1992 in Texas  
1993-1994 and 1995 in Texas  
1996-1997 and 1998 in Texas  
1999-2000 and 2001 in Texas  
2002-2003 and 2004 in Texas  
2005-2006 and 2007 in Texas  
2008-2009 and 2010 in Texas  
2011-2012 and 2013 in Texas  
2014-2015 and 2016 in Texas  
2017-2018 and 2019 in Texas  
2020-2021 and 2022 in Texas  
2023-2024 and 2025 in Texas

2008

Comet 17P/Holmes  
(30) mag. 7.2

Christmas Tree Cluster, Mars, M35, M36, M37, M38, Double Cluster in Perseus, Stock 2, Comet 18P/Holmes, still very nebulous and at about mag. 7.2 and about a degree from the middle of a line joining M34 and the star  $\beta$  Persei, Kenble's Cascade, R Leonis - very red and at about mag. 6.0, M44, M46, M47, M50 in Monoceros (See U2-135.), NGC 1647 and NGC 1746 - both in Taurus (See U2-77), also area of M1 in Taurus (See U2-77 for it also.).

M. 10:59 - 11:04 UT FL: in & outside lanai twl ne

Beginning just 3 min. after the beginning of astronomical twilight I observed brilliant Venus in the E. - about  $6^\circ$  N. of Antares and well below Arcturus and Spica which were high in the E. Other stars of  $\sigma$  Scorpius were also seen. Vega was up  $10^\circ$  or so in the NE. The Big Dipper was seen high in the N. Also seen in the N. were Polaris and Kochab. The bright stars of the constellation Leo and the planet Saturn were high in the S. near the zenith. Castor and Pollux were in the W.

W-Th. Jan. 9-10 01:30 - 02:40 UT FL: la S? T0-4 (cloud; l/p) ne; 18x50 15b

ne: Stars of winter; Mars well up in the E. The sky varied from having widely scattered cloud to being almost totally overcast.

18x50 15b: areas of Orion, M42, M43, area of R Lep, Pleiades, Hyades, Mars, M36, M37, M38,  $\alpha$  Persei Association of stars; Comet 17P/Holmes, - about  $2.5^\circ$  from Beta Persei, and very nebulous - at about mag. 7.2.

Comet 17P/Holmes  
(31) mag. 7.2.

M. 10:06 - 10:11 UT FL: in & outside lanai S? T5 (l/p) ne

- Brilliant Venus about 8 degrees above the E horizon, Arcturus and Spica well up in the E, Vega about 12 degrees above the horizon in the NNE, the stars



2008

of the Big Dipper very high in the N.; Polaris and Kochab in the N.; the bright stars of the constellation Leo and the planet Saturn very high in the S.

Th.-F. Jan. 10-11 03:35-04:05 UT FL: Ia S?T5 (1/p) ne; 18x50 isb.

ne: stars of winter, Mars very high in the E - near the zenith, Saturn in the constellation Leo up about 10° in the E.

18x50 isb: bright stars of the constellation Arcturus in the WSW, Hyades, Pleiades, NGC 1647 and NGC 1746 in Taurus, areas of Orion, M42, M43, R Lep - at about mag. 7.0.; M46 and M47, M50, M35, M36, M37, M38, Comet 17P/Holmes in Perseus - about 2° from Beta Persei and at about mag. 7.4 and very nebulous, Alpha Persei Association of Stars, Double Cluster in Perseus, Stock 2, NGC 2244, Plaskett's Star, S Mon and The Christmas Tree Cluster, Kenble's Cascade.

comet 17P/Holmes  
(32) mag. 7.4.

5:38-5:48 AM E.S.T.  
M. 10:38-10:48 UT FL: in & outside lanai S?T5 (1/p) ne

- Brilliant Venus up about 15° in the E and about 7° to the left of Antares. Other bright stars of Scorpius were visible. Vega up about 20° in the NE; the bright stars of The Big Dipper visible high in the N.; Polaris and Kochab in the N.; the bright stars of the constellation Leo and the planet Saturn very high in the S. and near the zenith. Castor and Pollux seen well up in the W. Arcturus and Spica high in the E.

F.-S. Jan. 11-12 02:50-03:40 UT FL: Ia S?T3 (1/p; scattered) <sup>cloud</sup> ne; 18x50 isb  
ne: Amid the scattered cloud, I saw the stars of winter and Mars very high in the E - about 20° from the zenith.

of the bright stars of the constellation  
Kochab in the N. the bright stars of the constellation  
had and the planet Saturn very high in the E.

The low ball stars of the constellation  
ME: stars of water, Mars, Saturn in the constellation  
up in the E.  
Location: Bright stars of the constellation  
up in the E.

ME: stars of water, Mars, Saturn in the constellation  
up in the E.  
Location: Bright stars of the constellation  
up in the E.

2009  
July 11-12  
July 13-14

Spice high in the E.  
bright stars of the constellation  
had and the planet Saturn very high in the E.

July 11-12 02:20-03:40 UT  
July 13-14 02:20-03:40 UT  
July 15-16 02:20-03:40 UT

2008

Comet 17P/Holmes  
(33) mag. 7.5

18X50ISb: Pleiades, Hyades, area of R Lep, various areas in Orion, M42, M43, NGC2244, Plaskett's Star, S Mon and the Christmas Tree Cluster, Mars, M35, M36, M37, M38, Comet 17P/Holmes - very nebulous and about  $2^\circ$  from Beta Persei - at about mag. 7.5; Double Cluster in Perseus, Stock 2, M34, Keble's Cascade.

Sa. Sa. Jan. 12-13 02:25-03:05 UT FL: 1a S?T5(1/p) ne; 18X50ISb  
ne: stars of winter; Mars very high in the E. and about  $20^\circ$  from the zenith; thin crescent moon just above roof of house to the west at beginning of session. The moon was about ~~4~~ days 15 hours old.

18X50ISb: Pleiades, Hyades, areas of Orion, M42, M43, NGC2244, Plaskett's Star, S Mon and Christmas Tree Cluster, M47, Mars, M35, M36, M37, M38, M34, Alpha Persei Association of stars, Comet 17P/Holmes, - very nebulous and  $1.5^\circ$  to  $2^\circ$  from Beta Persei and at about mag. 7.6, Double Cluster in Perseus, Stock 2, Keble's Cascade.

Comet 17P/Holmes  
(34) mag. 7.6

5:42-5:46 a.m. E.S.T.  
Su. - M. Jan. 13-14 m. 10:42-10:46 UT FL: in+outside knai S?T3(cloud; 1/p) ne  
- Amid the clouds I saw Venus up about  $15^\circ$  in the E. and Arcturus and Spica very high in the E. The stars of the Big Dipper were seen very high in the N. Vega was up about  $25^\circ$  in the NE. Saturn and Regulus were seen very high in the S. and near the zenith.

M.-T. Jan. 14-15 02:45-04:00 UT FL: 1a S?T3-4(1/p; 1/p m; cloud) ne; 18X50ISb  
ne: stars of winter; crescent moon - just 17 hours short of First Quarter - well up in the WSW above the roof



2008

of the house across the street; Mars high in the E, only about  $10^\circ$  from the zenith; Saturn up about  $10^\circ$  or more in the E. Cirrus clouds persisted during the session. - bright meteor in Auriga - about mag. -4!  
18x50ISB: Pleiades, Hyades, areas of Orion, M42, M43, R Lep - bright enough to be barely visible in the binoculars, M41, NGC 2244, Plaskett's Star, S Mon and the Christmas Tree Cluster, M35, M36, M37, M38, looked carefully for Comet 17P/Holmes near  $\beta$  Persei, but was not absolutely sure of seeing it - perhaps because of the cirrus cloud or the light pollution; Kemble's Cascade, NGC 1647 and NGC 1746 in Taurus, Saturn, Mars, R Leonis - perhaps at about mag. 6.0; M44.

M. 10:54 - 11:00 UT FL: in + outside laua <sup>5:54 - 6:00 a.m. E.S.T.</sup> S? T2 (1/p; clouds) ne there were heavy clouds, but I managed to see Venus about  $15^\circ$  above the E. horizon and Arcturus very high in the E. Some of the stars of the Big Dipper were visible high in the N. Saturn and some of the bright stars of the constellation Leo were visible high in the S. near the zenith.

T.-W. Jan. 15-16 03:30-04:10 UT FL: la srt 45 (1/p; fog ml) ne; 18x50ISB ne: stars of winter; bright First Quarter Moon well up in the W.; Mars in, or near, the zenith and about  $3^\circ$  from the star  $\beta$  Tauri, Saturn up about  $15^\circ$ - $20^\circ$  in the E, below Regulus.

18x50ISB: Pleiades, Hyades, Mars, M35, M36, M37, M38, M41, M42, M43, M44, areas of Orion, R Lep - Very red but faint at only about 7.0 mag. and seen with difficulty in the sky brightened by the moonlight, NGC 2244, Plaskett's Star, S Mon and the Christmas Tree Cluster, looked for Comet 17P/Holmes near  $\beta$  Persei, but was





2008

not certain of seeing it,  $\alpha$  Persei Association of stars, Kemble's Cascade, Saturn, Regulus, R Leonis - fairly bright - at about mag. 6.5.

M. 10:35 - 10:40 UT FL: la 7 outside lanai S?T2 (1/p; cloud!) ne  
Amid the very widespread clouds, I saw only a few objects: Venus, brilliant and up about  $10^\circ$  in the E., Arcturus and Spica very high in the E., 2 of the stars of the Big Dipper very high in the N., and Saturn very high in the S and near the zenith.

W.-Th. Jan. 16-17 02:20 - 03:05 UT FL: la S?T2-3 (clouds; 1/p; gml) ne; 18x501sb

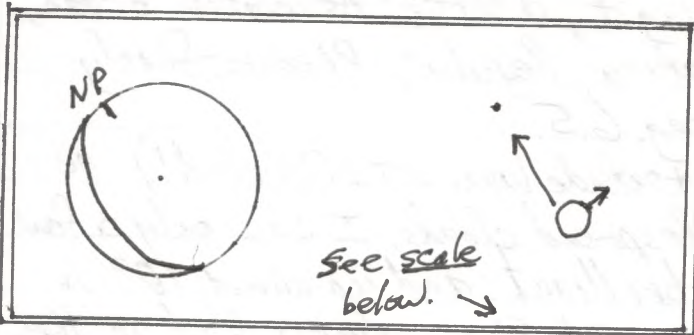
ne: Amid the scattered clouds, I saw the stars of winter, Mars very high in the E., about  $15^\circ$  E. of the zenith, the bright gibbous moon about  $30^\circ$  W. of the zenith, Near the end of the session, Saturn was seen about  $10^\circ$  above the horizon in the E and below Regulus.

18x501sb: M41, areas of Orion, M42, M43, R Lep seen with some difficulty, and very red and probably about mag. 7.0, NGC 2244, Plaskett's Star, S Mon and the Christmas Tree cluster, M46 seen with difficulty and M47, Mars, M35, M36, M37, M38, the Alpha Persei Association of stars, Kemble's Cascade, Saturn which was visible in the E near the end of the session, R Leonis which was probably about mag. 6.0, Mars, Hyades, Plerades, NGC 1746 in Taurus.

S.-S. Jan. 19-20 23:57 - 00:30 UT FL: la S?T4-5 (1/p; gml) ne; 18x501sb  
ne: I observed hoping to be able to see and record the Moon-Mars Conjunction which was listed as occurring in R.A. at 0h UT. The Observer's

2008, Jan 19-20, 0h UT:

$\text{C} - \text{♂}$  Conjunction in R.A.:  $1.1^\circ$  separation  
(Occultation in the High Arctic)



View as seen from Bonita Springs, Florida  
(Latitude:  $26^\circ 18'$ )

Moon At Time of the Conjunction  
Moon: about 90%+ illuminated.

Orientation: NP at about  $10\frac{1}{2}$  o'clock position on the sky

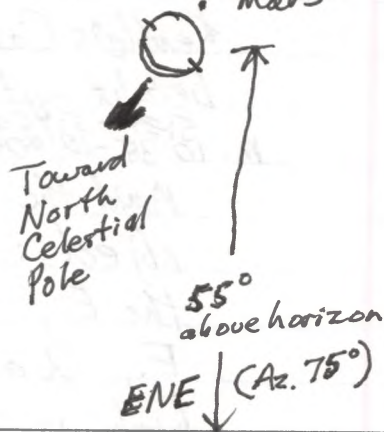
Azimuth:  $75^\circ$  (in ENE)

Altitude:  $55^\circ$  ( $35^\circ$  from zenith)

Right limb:  $3^\circ$  below  $\beta$  Tauri (seen ne.)

Moon's motion easily detected within 15 minutes even naked-eye

Position of Mars possibly seen from Ontario  
seen from Florida  
Position of Mars possibly seen near the equator.



Scale:

50 mm =  $1^\circ$  - 60'

25 mm =  $\frac{1}{2}^\circ$  - 30'

12.5 mm =  $\frac{1}{4}^\circ$  - 15'

6.25 mm =  $\frac{1}{8}^\circ$  - 7.5'

Mars to limb:  $0.65^\circ - 39'$  (32.5 mm)

Mars to centre:  $0.9^\circ - 54'$  (45 mm)

At Time of Conjunction, Mars appeared at Position Angle  $80^\circ$  (using clockwise orientation from centre of lunar disk).

2008

Measuring  
Moon-Mars  
separation  
for possible  
Lunar Parallax  
Study.

Handbook listed the separation as  $1.1^\circ$  - presumably as viewed by "from the centre of the Earth", and it also listed an occultation as occurring in "N. Russia, Arctic regions, NW Tip of N. America." That is, as seen from the tropics, the Moon would appear  $1.1$  degrees N. of Mars, but in the Canadian High Arctic, it would occult Mars. As the observers location moves northward from the tropics to the polar region, the Moon's apparent position moves southward by roughly 1 degree or roughly twice the apparent lunar diameter. I had previously tried to arrange for comparative "Lunar Parallax drawings to be done by Ken Kingdon, Walter MacDonald, and Susan Gagnon. I observed the bright gibbous moon, the planet Mars to its right and the star Beta Tauri about  $3^\circ$  above the right limb of the moon. I also observed the bright stars of Orion, Sirius, Procyon, and in the E Tow above the horizon Regulus. Also high in the NE, I saw Capella.

18x50DSB: I observed the lunar disk, Mars, and the star  $\beta$  Tauri. My observations for lunar orientation, distance between Mars and the nearest limb of the moon, and ~~Mars~~ distance between Mars and the centre of the lunar disk are given on the opposite page.

S-M. Jan. 20-21 03:35-03:40 UT <sup>FL: la</sup> <sub>5:14 (1/p; FM)</sub> ne

Under an extremely bright moon just about 34 hours before Full Moon, I observed briefly on a chilly and windy night. The moon was about  $10^\circ$  E. of the zenith and in the constellation Gemini. Mars was W. of the zenith. Also seen were the brightest of the stars of Orion, Castor and Pollux, Sirius and Procyon and



2008

Aldebaran. Regulus and Saturn were in the E.

sky.

6:27-6:28 a.m. E.S.T. FL: lanai twl ne  
m. 11:27-11:28 UT

Well into twilight I briefly looked to the E, and saw that the sky was almost completely overcast, but did see Venus among the clouds periodically.

M.-T. Jan. 21-22 - 03:35-03:40 UT FL: la S?T5 (1/p; fml) ne

- Under a brilliant Full Moon high in the E, below, and a line extended from Castor to Pollux to the moon with the moon below, and to the right, by about 5 degrees from Pollux, Orion very high in the SE, Sirius and Procyon in the SE, Canopus about 12° above the horizon in the SE, Mars about 2 degrees from  $\beta$  Tauri and about 3° E. of the zenith, Capella high in the NE,  $\alpha$  Persei and  $\beta$  Persei high in the NNE, Aldebaran extremely high in the S; Saturn about 12° above the ENE horizon with Regulus about 10° above Saturn.

5:40-5:45 a.m. E.S.T. FL: in + outside lanai S?T3 (1/p; full; clouds) ne  
m. 10:40-10:45 UT

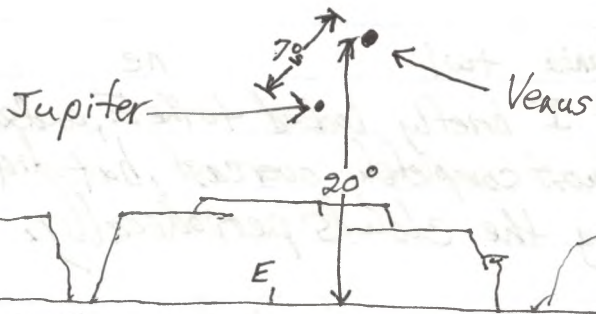
Amid some clouds and the brightness of a very bright Full Moon, I observed Venus up about 10° in the E, and Antares to the right and up from Venus, Vega up about 25° in the NE, and the Full Moon up about 30° in the W. and among the clouds.

m. 5:33-5:43 a.m. E.S.T. FL: in + outside lanai S?T1 ne  
T.-W. Jan. 22-23 10:33-10:43 UT

Amid the heavy clouds I was able to see one celestial object, the bright Full Moon up about 40° in the W.

5:32-5:42 a.m. E.S.T. FL: in + outside lanai. S?T1 (gml; 1/p; cloud) NE  
Th.-F. Jan. 24-25 m. 10:32-10:42 UT

- I observed for about 10 minutes in spite of the heavy clouds, and



2008, Jan. 26: View to E in twilight showing Venus and Jupiter at 11:45 UT

2008.

did manage to see three objects: a bright gibbous moon about  $35^\circ$  WSW of the zenith with Saturn about  $7^\circ$  to the W. of it and Regulus about  $10^\circ$  W. of Saturn.

F.-S. Jan. 25-26 02:15-02:45 UT FL: la S? T5 (1/p) ne; 18x50ISb

ne: stars of winter in the S; Mars in Taurus near  $\beta$  Tauri, Saturn up about  $12^\circ$  in the E. with Regulus about  $10^\circ$  above Saturn.

18x50ISb: Pleiades, Hyades, NGC 1647 and NGC 1746 in Taurus, areas of Orion, M42, M43, R Lep and its area with R Lep at about mag. 8.5, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, M41, M35, M36, M37, M38, & Persei Association of stars, Double Cluster in Perseus, Stock 2, Saturn, Regulus, R Leonis at about mag. 6.0, Mars.

M. 6:45 - 6:46 a.m. E.S.T.  
11:45 - 11:46 UT FL: in lanai twl ne

I observed the E. sky briefly in twilight seeing brilliant Venus at  $20^\circ$  elevation and Jupiter down and to its left by about  $7^\circ$ . (See diagram.)

S.-S. Jan. 26-27 m. 5:58 - 6:00 a.m. E.S.T.  
10:58 - 11:00 UT FL: in lanai early twilight ne

Under skies that were quite cloudy, I briefly observed just a few minutes after the beginning of morning twilight (which began at 10:56 UT). I was able to see the planet Venus very easily but did not knowingly see Jupiter below and to the left of it probably because of clouds.

S.-M. Jan. 27-28 03:00-03:30 UT FL: la S? T5 (1/p) ne; 18x50ISb.

ne: stars of winter in the SE, Mars very high in the E. and near the zenith, Saturn and Regulus rather low in the E.



It was to the three points about 1/2 mile from  
about 52° West of the track with 2200 ft  
to the N. of it and higher about 1000 ft.

The two 2000 ft. points are 1/2 mile apart  
The zone of water in the 2000 ft. zone  
is about 100 ft. in thickness and is  
about 100 ft. in thickness.

There is a small area of water  
in the 2000 ft. zone about 1/2 mile  
from the 2000 ft. point. It is  
about 100 ft. in thickness and is  
about 100 ft. in thickness. The  
water is about 100 ft. in thickness  
and is about 100 ft. in thickness.  
I found the water in the 2000 ft. zone  
to be about 100 ft. in thickness and  
is about 100 ft. in thickness.

The water in the 2000 ft. zone  
is about 100 ft. in thickness and  
is about 100 ft. in thickness. The  
water is about 100 ft. in thickness  
and is about 100 ft. in thickness.  
The water in the 2000 ft. zone  
is about 100 ft. in thickness and  
is about 100 ft. in thickness.

The water in the 2000 ft. zone  
is about 100 ft. in thickness and  
is about 100 ft. in thickness. The  
water is about 100 ft. in thickness  
and is about 100 ft. in thickness.

# Relative Sunspot Numbers

Date My  
2007 Observation

Sept. 25 0

27 0

30 0

Oct. 1 0

2590

4 0

5 0

12 0

16 0

20 0

21 0

22 0

24 0

25 0

26 0

2600

28 0

31 0

Nov. 1 0

2 0

3 0

4 0

5 0

6 0

8 0

9 0

2610

11 0

13 0

15 0

16 0

17 0

18 0

20 0

Dec. 1 0

2620

5 0

