

**Volume**  
**27**  
**October 12, 2006**  
**to**  
**April 21, 2007**

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Hilroy

27

Leo Enright  
Observing Log

100

Pages

26.7 x 20.3 cm

1 SUBJECT NOTEBOOK  
CAHIER 1 SUJET



13129

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# AAVSO

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## 2006

### JULIAN DAY CALENDAR

2,450,000 plus the value given under each date

#### JULY

Sun	Mon	Tue	Wed	Thu	Fri	Sat
☾ 3	○ 11	☾ 17	● 25			1 3918
2 3919	3 3920	4 3921	5 3922	6 3923	7 3924	8 3925
9 3926	10 3927	11 3928	12 3929	13 3930	14 3931	15 3932
16 3933	17 3934	18 3935	19 3936	20 3937	21 3938	22 3939
23 3940	24 3941	25 3942	26 3943	27 3944	28 3945	29 3946
30 3947	31 3948					

#### AUGUST

Sun	Mon	Tue	Wed	Thu	Fri	Sat
☾ 2	○ 9	1 3949	2 3950	3 3951	4 3952	5 3953
6 3954	7 3955	8 3956	9 3957	10 3958	11 3959	12 3960
13 3961	14 3962	15 3963	16 3964	17 3965	18 3966	19 3967
20 3968	21 3969	22 3970	23 3971	24 3972	25 3973	26 3974
27 3975	28 3976	29 3977	30 3978	31 3979	☾ 16	● 23
☾ 31						

#### SEPTEMBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
○ 7	☾ 14	● 22	☾ 30		1 3980	2 3981
3 3982	4 3983	5 3984	6 3985	7 3986	8 3987	9 3988
10 3989	11 3990	12 3991	13 3992	14 3993	15 3994	16 3995
17 3996	18 3997	19 3998	20 3999	21 4000	22 4001	23 4002
24 4003	25 4004	26 4005	27 4006	28 4007	29 4008	30 4009

#### OCTOBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 4010	2 4011	3 4012	4 4013	5 4014	6 4015	7 4016
8 4017	9 4018	10 4019	11 4020	12 4021	13 4022	14 4023
15 4024	16 4025	17 4026	18 4027	19 4028	20 4029	21 4030
22 4031	23 4032	24 4033	25 4034	26 4035	27 4036	28 4037
29 4038	30 4039	31 4040	○ 7	☾ 14	● 22	☾ 29

#### NOVEMBER

#### DECEMBER

# Observing Log

Code:

Year Day Date Time

Place

Sky Conditions

S=Seeing T=Transparency

Instrument(s)

Time:

Places:

UT = Universal Time

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

K = Kellner

O = Orthoscopic

Ko = König

WA = Wide Angle

P = Plossl

ph = photography

p/b = piggyback

o/a = off axis

Ba = Barlow

A.P.F. = Astrophysics Solar Filter

T.O.F. = Thousand Oaks Solar Filter

Objects:

PN = Planetary Nebula

GC = Globular Cluster

OC = Open Cluster

SG = Spiral Galaxy

LPV = Long Period Variable

Atlases:

U = Uranometria 2000.0

U210 = Uranometria 2000.0 Chart 210

AAUSO = AAUSO Variable Star Atlas

Cam. = Cambridge Star Atlas (2000.0)

MSA = Millennium Star Atlas

UDSA = Uranometria <sup>2000.0</sup> Deep Sky Atlas

UDSA210 = Uranometria 2000.0 Deep Sky Atlas Chart 210.



2006 Th.-F Oct. 12-13 01:45-02:30 UT y 58 T 7-8.5 ne; 18X5015b

ne: stars of autumn, a very bright meteor in Pegasus of about mag. -4, and a very fast meteor high in the sky near the zenith or slightly north of it of about mag. 3.,  $\delta$  Cephei at mag. 4.3.

18X5015b: Uranus, slightly SSW of  $\alpha$  Aqr, Neptune in Cap., M30, M31, M32, M110, M33, M15,  $\alpha$  Persei group of stars, Kemble's Cascade, Kemble 2, Double Cluster, Stock 2, M71,  $\beta$  Cyg, Col 399, M27, M57,  $\epsilon$  Lyrae,  $\delta$  Cephei

The moon rose at 2:12 UT

Sa.-Su. Oct. 14-15 23:45-23:55 UT nd twl ne; 18X5015b

ne: some of the stars of autumn in the half-hour before the end of astronomical twilight, with the sky quite dark but with some clouds near the end of the short session.

18X5015b: Comet SWAN in the NW sky almost in a line between the handle of the Big Dipper and Arcturus. There even appeared to be a hint of a tail going upward and slightly to the right.

Comet SWAN

S.-M. Oct. 15-16 03:55-04:40 UT y 58(?) T 8 ne; 18X5015b

ne: stars of autumn; Orion rising in the SE.

Levy 53

18X5015b: Levy 53 (NGC 725) a bright cluster in Andromeda, M31, M32, M110, M33, M42, M43, M36, M37, M38, M1 (Crab Nebula), Pleiades, Hyades.

Sa.-Su. Oct. 21-22 02:20-03:50 UT y 58(?) T 7-9 (varied) ne; 18X5015b

ne: stars of autumn.

18X5015b: Uranus in Aquarius, Neptune in Capricornus,



2006

Pleiades, Hyades, M36, M37, M38, Kemble's Cascade, Stock 2 and Double Cluster, Alpha Persei Cluster of stars, M31, M32, M110, M33, M103 area and NGC 663 in Cassiopeia, VW Arctis and area (See U175), Open Cluster NGC 1647, about  $4^\circ$  NE of Aldebaran. (See U134)

W-Th. Oct. 25-26 01:00-01:22 UT nd

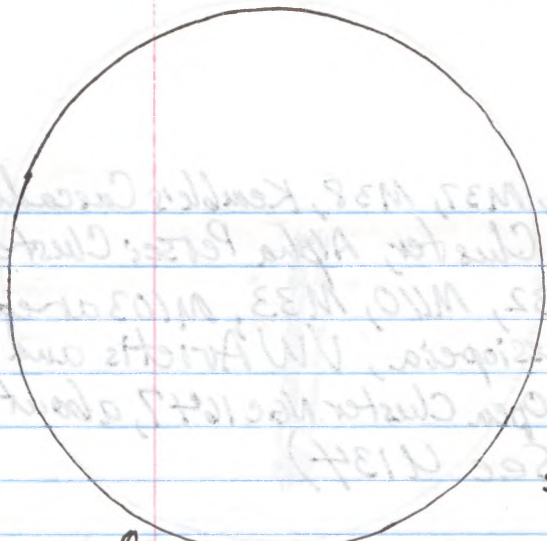
ne: stars in the N. part of the sky. Earlier in twilight at about 22:45 UT (6:45 pm. EDT) or slightly thereafter, I saw the Crescent Moon about  $10^\circ$  above the SW horizon.

18X5015b: Though I had not been certain of seeing the comet naked-eye (even though I thought at one point I might have seen it) I saw it wonderfully clearly in the binoculars and a tail of about  $1\frac{1}{2}$  degrees was very clearly seen extending upward - more clearly than I had seen it on Oct. 14-15. (See diagram). It was probably at about mag. 6.0. Its position was given as R.A.:  $16^h 07.34m$ ; Dec.:  $+35^\circ 27.2'$  for Oh TT October 26th.

Th-F. Oct. 26-27 23:00-23:50 UT <sup>overcast</sup> (S?TQ) ne

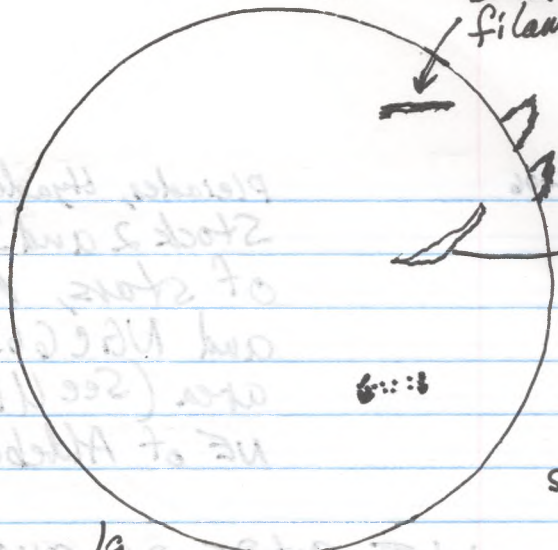
Thinking that there might be a chance of observing Comet C/2006 M4 (SWAN), I had opened the roof of the observatory, and I sat and observed clouds. Ken Kingdon had phoned and asked me to return a call - about how conditions looked toward the south-west, since he had planned on possibly going to Camden Lake to





09  
05  
RSNO

Oct. 30  
17:30-17:35 UT



19  
165  
RSN26

Nov. 1

in twilight at about 23:45 UT (1:45 pm EDT) or slightly thereafter, I saw the crescent Moon about 10° above the SW horizon. Though I had not been certain of seeing the comet naked-eye (ever) I had thought at one point I might have seen it. I saw it wonderfully clearly in the binoculars and a tail of about 1-2 degrees was very clearly seen extending upward - more clearly than I had seen it on Oct. 14-15. (See diagram.) It was probably just about mag. 2.0. The position was given as A. 12° 27' 21.5" Dec. +35° 21.2' for Oct 17 October 2004.

Thinking that there might be a chance of observing Comet C/2004 M4 (SWAN), I had opened the roof of the observatory, and I set out observed clouds. Ken Kishor had phoned and asked me to return a call about how conditions looked toward the south-west, since he had planned on possibly going to Carbar late to

in twilight at about 23:45 UT (1:45 pm EDT) or slightly thereafter, I saw the crescent Moon about 10° above the SW horizon. Though I had not been certain of seeing the comet naked-eye (ever) I had thought at one point I might have seen it. I saw it wonderfully clearly in the binoculars and a tail of about 1-2 degrees was very clearly seen extending upward - more clearly than I had seen it on Oct. 14-15. (See diagram.) It was probably just about mag. 2.0. The position was given as A. 12° 27' 21.5" Dec. +35° 21.2' for Oct 17 October 2004.

Thinking that there might be a chance of observing Comet C/2004 M4 (SWAN), I had opened the roof of the observatory, and I set out observed clouds. Ken Kishor had phoned and asked me to return a call about how conditions looked toward the south-west, since he had planned on possibly going to Carbar late to

2006

observe, but I returned the call to say that the sky looked generally cloudy. Eventually I closed the roof. After doing so, I noticed a few stars, but the sky did not quickly become generally clear.

M. Oct. 30 17:30-17:35 UT t C-8, 32, 28, 20, 15.5  
sun 09 05 RSN0 T.O.F.

M. Oct. 30 17:40-17:45 UT nd P.S.T., 20, 28, 20E, 15.5  
sun in H $\alpha$  - very sharp and distinct prominence at the 2 o'clock position on the disk as viewed in the eyepiece.

M.-T. Oct. 30-31 23:15-23:25 UT nd twl (late twilight) ne; 18X5015b  
ne: some of the stars of autumn, with the gibbous moon, about 1 day past First Quarter in the S.  
18X5015b: Comet C/2006 M4 (SWAN) near  $\epsilon$  Her in the keystone of Hercules and at about mag. 6. With a bright moon in the sky, there did not seem to be any tail of the comet visible in the binoculars. Also seen was M13 which was not far from the comet. Coordinates given for the comet were: R.A.: 16<sup>h</sup> 59.61 m; Dec.: +31° 16.5" for Oh TT.

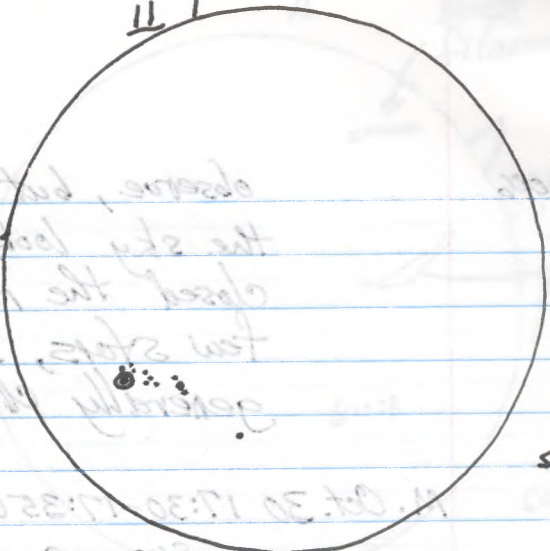
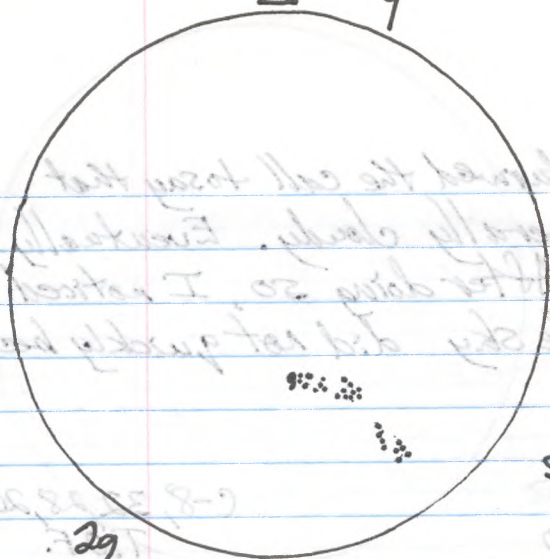
Comet SWAN

W. Nov. 1 18:00-18:05 UT t C-8, 32, 28, 20, 15.5  
sun 19 16.5 RSN26 T.O.F.

W. Nov. 1 18:05-18:10 UT nd P.S.T., 20, 28, 20E, 15.5  
sun in H $\alpha$  - two very nice prominences at the 2 o'clock position in the field, and a black filament and white plage near the 2 o'clock position. (See diagram.)

21 9

11 1

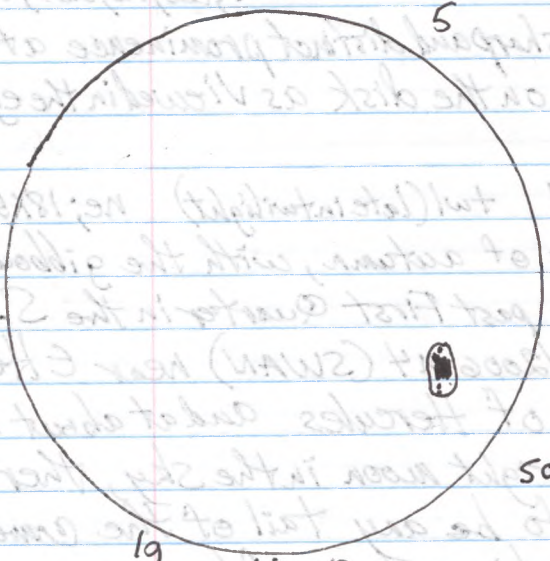


SC

SC

29  
305  
RSN50  
Nov. 3  
17:10-17:20UT

29  
125  
RSN32  
Nov. 6  
18:00-18:05UT



5

19  
55  
RSN15  
Nov. 10  
17:20-17:25UT

SC

2006 F. Nov. 3 17:10-17:20 UT t C-8, 32, 28, 20, 15.5  
sun 2g 30s RSN 50 T.O.F.

F. Nov. 3. 17:30-17:35 UT nd P.S.T., 20, 32, 20E, 15.5  
sun in H $\alpha$  - indications of small prominences only

M. Nov. 6 18:00-18:05 UT t C-8, 32, 28, 20, 15.5  
sun 2g 12s RSN 32 T.O.F.

M. Nov. 6 18:10-18:15 UT nd P.S.T., 20, 28, 20E, 15.5  
sun in H $\alpha$  - a "small" prominence at the 2 o'clock  
position as viewed in the field, and "hints" of others.

F. Nov. 10. 17:20-17:25 UT t C-8, 32, 28, 20, 15.5  
sun 1g 5s RSN 15 T.O.F.

F. Nov. 10 17:30-17:35 UT y P.S.T. 20, 28, 20E, 15.5  
sun in H $\alpha$  - small prominences or "hints" of such.

T.-W. Nov. 21-22 04:00-05:00 UT y (S6T6-79) ne; 18X5015b  
ne: Finally a night on which to observe! The  
transparency was poor at the beginning, but at about  
04:30 UT conditions changed and it became good.  
Seeing, especially at lower altitudes remained  
fairly poor. I was able to see Orion and  
in the S and SE "other stars of winter."

18X5015b: M35, M36, M37, M38, M41, M42, M43, M44,  
M45, Hyades, R Lep - Hind's Crimson Star  
fairly faint at about mag. 8.5, Levy 159  
(NGC 2264 - the Christmas Tree Cluster in Mon.),  
NGC 2244 - the cluster within the Rosette  
Nebula.



2006 Nov. 22 18:00-18:05 UT t  
Sun Og Os RSNO

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

Nov. 22 18:10-18:15 UT y P.S.T., 20, 28, 20E, 15.5  
Sun in H $\alpha$  - only some "hints" of prominences

W-Th. Nov. 22-23 00:20-00:50 UT and 02:20-04:15 UT | 00 STT 9.5-10.0 ne; 18x5015b; 20x100b

Gegenschein!

ne: stars of late autumn and early winter; 2 bright  
meteors of about mag. 0 and -1; Gegenschein  
seen easily in Aries and Taurus! The transparency  
was stunningly good

18x5015b: M15, M2, Uranus in Aquarius, M35,  
M36, M37, M38, M42, M43, M31, M32, M40,  
M33.

20x100b: M42, M43, R Lep at about mag. 8.5,  
NGC 2244 and the Rosette Nebula, S Mon and  
NGC 2264 (The Christmas Tree Cluster), area  
of NGC 2252 and NGC 2254 - both not far  
from the Rosette Nebula. (See U 182)

Th. Nov. 23 17:35-17:40 UT t  
Sun Og Os RSNO

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

Th. Nov. 23 17:45-17:50 UT y

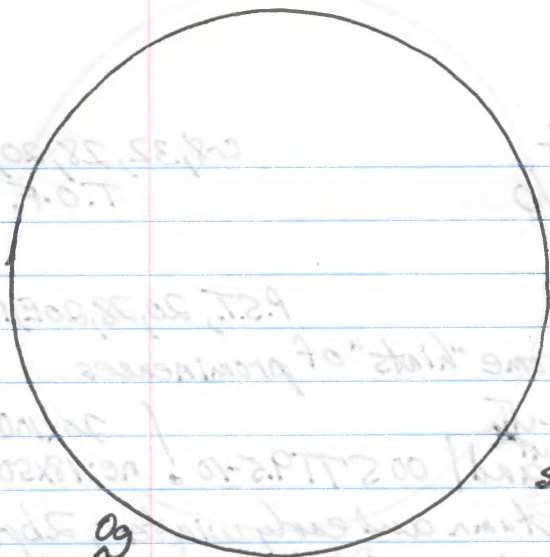
sun in H $\alpha$  - only some hints of prominences. P.S.T., 20, 28, 20E, 15.5

Th-F. Nov. 23-24 04:15-04:50 UT y (STT 9.5!) ne; 18x5015b

Gegenschein

ne: stars of late autumn and winter; Winter Milky Way  
very bright in Auriga and below it, the Gegenschein  
seen in the area of Aries and Taurus but  
perhaps not as the previous night.

18x5015b: M42, M43 and other areas of Orion,  
R Lep at about mag. 8.5 and its area,



09  
03  
RSNO

Nov. 24  
17:55-18:00 UT

Nov. 23 18:00-18:05 UT

Nov. 23 18:10-18:15 UT

Nov. 23 18:20-18:25 UT

Nov. 23 17:35-17:40 UT

Nov. 23 17:45-17:50 UT

Nov. 23 17:55-18:00 UT

some faint handwritten notes on the left page, including "some faint notes" and "some faint notes".

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2006

Pleiades, Hyades, M1, M35, M36, M37, M38,  
NGC 1907-OC near M38, area of Levy 340  
(NGC 1134) in Aries Not the star  $\mu$  Ceti (U175)  
but was not sure of seeing this galaxy,  
Levy 159 (NGC 2264) - the Christmas Tree cluster and  
other objects in the area including NGC 2244 - the  
cluster associated with the Rosette Nebula.

F. Nov. 24 17:55-18:00 UT t C-8, 32, 28, 20, 15.5.  
Sun Og Os RSNO T.O.F.

F. Nov. 24 18:00-18:05 UT y P.S.T., 20, 28, 20E, 15.5.  
Sun in H $\alpha$  - only 'hints' of prominences

F.-S. Nov. 24-25 02:10-04:50 UT  $\leftarrow$  20x100b; C-14, 32  
23:00-00:00 UT and } 00 S T 8.5  $\rightarrow$  6 ne; 18x50 15b;  
ne: stars of late autumn and winter. Crescent  
moon amid the trees in the WSW in the early  
part of the session.

20x100b: Early in the session and beginning before  
the end of astronomical twilight, I tried to  
observe Comet SWAN which, according to the  
map in Sky and Telescope Nov. 2006,  
was supposed to be near NGC 6804  
about 4.5 degrees W. of Altair in  
Aquila. (See U207). However, I was  
not sure of seeing the comet which was  
supposed to be at mag. 9.2.

C-14, 32: M32, M110.

18x50 15b: M36, M37, M38, Pleiades, Hyades,  
NGC 1647-OC in Taurus (See U134),

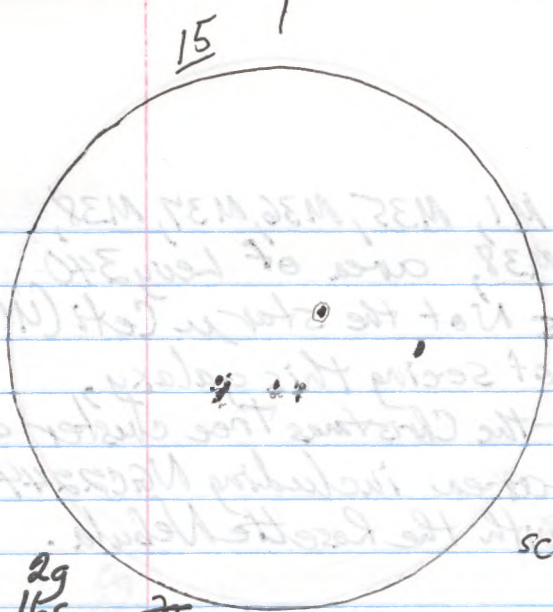
Levy ~~116~~ 237 (NGC 1746) - OC in Taurus  
(See U134), M42, M43.

Levy 237.

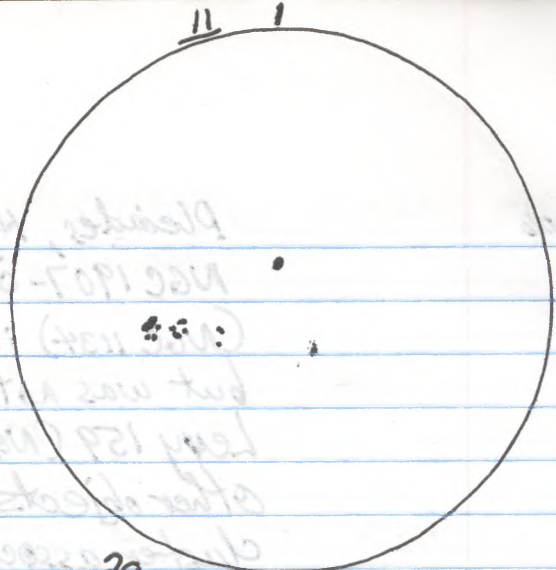
Levy 116.

20x100b: M35, Levy 116 (NGC 2158) OC near M35,



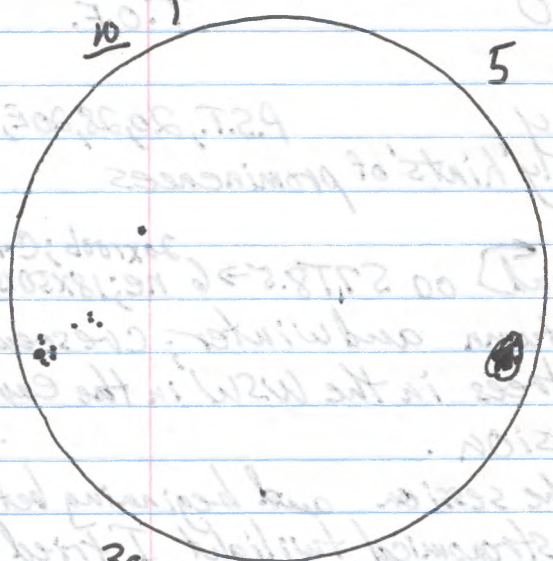


2g  
16s  
RSN 36  
Dec. 2  
17:15-17:20 UT



2g  
12s  
RSN 32  
Dec. 3  
17:20-17:25 UT

SC



3g  
16s  
RSN 46  
Dec. 5  
18:05-18:10 UT

SC

2006 Levy 124 Levy 124 (NGC 2174) - which is a "bright nebula" described on the Levy List as being a "large field of dust in Orion - located about 4 degrees S. of M35 (See U137 for both Levy 116 and Levy 124.), Levy 35 (NGC 2420) located about 6.5 degrees S. of Pollux. (See U139.) Also discovered was TV Gem, about 1.5 degrees from Levy 124 (NGC 2174). (See U137.)

Levy 35

Sa. Dec. 2 17:15-17:20 UT t C-8, 28  
 Sun 2g 16s RSN36 T.O.F.

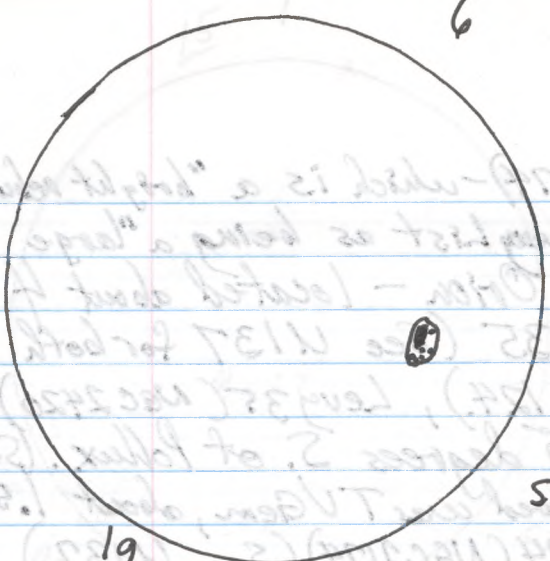
Sa. Dec. 2 17:20-17:25 UT y P.S.T., 20  
 Sun in Hx - just some "hints" of prominences.

Su. Dec. 3 17:20-17:25 UT t C-8, 32  
 Sun 2g 12s RSN32 T.O.F.

S.-M. Dec. 3-4 03:20-03:45 UT y 58(?) T4 (FMO) ne; 18X50 ISb  
 ne: some of the brightest of the winter stars, the Full Moon (about 21 hours from the instant of Full Moon) about 25° to 30° from the zenith.  
 18X50 ISb: Some of the bright stars of the Pleiades near the moon. An occultation of some of the stars of the Pleiades was scheduled for about this time - for about 3<sup>h</sup> UT. The difficulty of seeing some of the slightly fainter stars of the Pleiades when very close to the moon was caused by the overpowering brightness of the Full Moon.

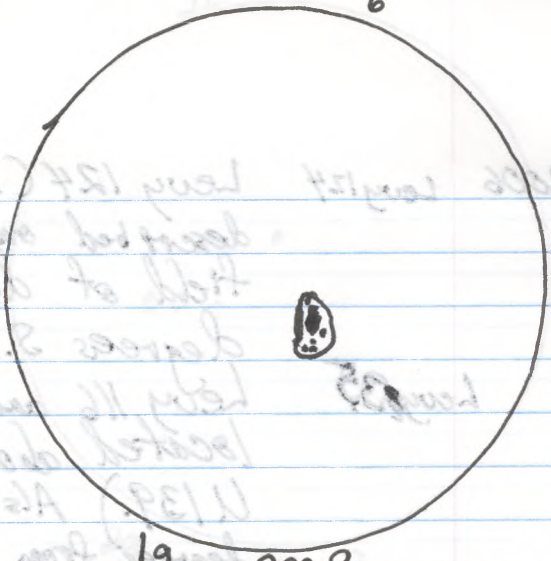
-some stars of Pleiades very near the moon.

Tu. Dec. 5 18:05-18:10 UT t C-8, 32  
 Sun 3g 16s RSN46 T.O.F.



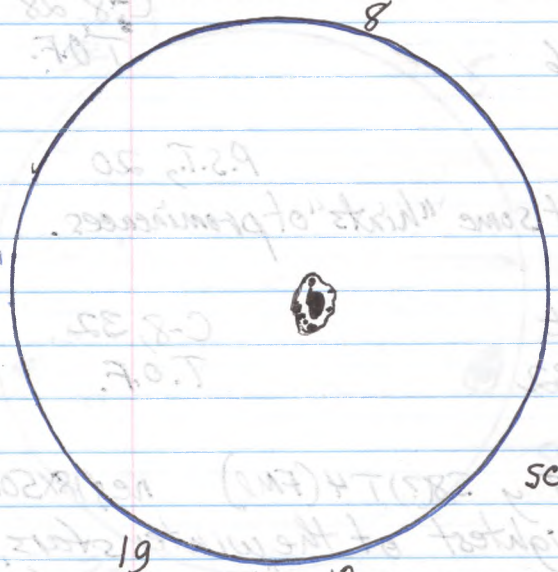
19  
65  
RSN16 Dec. 8  
19:10-19:15 UT

SC



19  
65  
RSSN16 Dec. 9  
18:45-18:50 UT

SC.



19  
85  
RSN18 Dec. 10  
17:50-17:55 UT

SC

the overexposure brightness of the full moon when very close to the moon was caused by slightly brighter stars of the Pleiades the difficulty of seeing some of the for about this time - for about 3 UT. at the stars of the Pleiades was scheduled near the moon. An occultation of some

near the moon  
Pleiades very  
-some stars of

C-8-32  
T.O.F.

Tr Dec 2 18:02-18:10 UT  
Sun 23 12 RSN16

2006 Tu. Dec. 5 19:00-19:05 UT y P.S.T., 20  
sun in H $\alpha$  - several hints of prominences.

F. Dec. 8 19:10-19:15 UT t C-8, 32  
sun lg 6s RSN16 T.O.F.

F. Dec. 8 19:15-19:20 UT y P.S.T., 20  
sun in H $\alpha$  - several hints of prominences in the lower part  
of the rim of the solar disk, as seen in the field.

Sa. Dec. 9 18:45-18:50 UT t C-8, 32  
sun lg 6s RSN16 T.O.F.

Sa. Dec. 9 18:50-18:55 UT y P.S.T., 20  
sun in H $\alpha$  - very little prominence activity seen, but the  
conditions were hazy. The large sunspot was seen.

Sa. Dec. 10 17:50-17:55 UT t C-8, 32  
sun lg 8s RSN18 T.O.F.

Sa. Dec. 10 17:55-18:00 UT y P.S.T., 20  
sun in H $\alpha$  - hints of prominences. The large  
sunspot was easily seen.

\* (6:15-6:20 a.m. EST.)  
Th.-F. Dec. 14-15, 11:15-11:20 UT FL: lanai S?T1 ne

In spite of very extensive cloud cover, I was  
able to observe the waning crescent moon among the  
clouds in the E. The moon, about 4 days before  
New Moon, was about 40° above the horizon.

S.-M. Dec. 17-18 03:30-04:30 UT FL: la S9T5 (1/p) ne; 18x5 015b  
ne: bright stars of Orion, Hyades, Pleiades near the  
zenith, Arcturus, some stars of Gemini, Canis Major,

2-M. Dec 17-18 03:30-04:30 UT F.L. 2875 (1/2) 10; 18x50sp  
re: bright stars of Orion, Hyades, Pleiades near the  
zenith; Antares, some stars of Gemini; Cassiopeia;

Th-F. Dec 14-15, 11:30-11:30 UT F.L. 2871  
In spite of very extensive cloud cover, I was  
able to observe the waning crescent near sunset the  
clouds in the E. The moon, about 4 days before  
New Moon, was about 40° above the horizon.

2-M. Dec 10 17:55-18:00 UT F.L. 2870  
Sun in the hints of prominence. The big  
sunset was easily seen.

2-M. Dec 10 17:50-17:55 UT F.L. 2871  
Sun 10 82 R9 M18  
C-8 32  
T.O.F.

2-M. Dec 9 18:50-18:55 UT F.L. 2870  
Sun in the - very faint prominence activity seen but the  
conditions were very. The large sunset was seen.  
P.S.T. 30

2-M. Dec 9 18:45-18:50 UT F.L. 2871  
Sun 10 82 R9 M18  
C-8 32  
T.O.F.

F. Dec 8 19:15-19:20 UT F.L. 2870  
Sun in the - several hints of prominence in the west part  
of the solar disk seen in the field  
P.S.T. 30

F. Dec 8 19:10-19:15 UT F.L. 2871  
Sun 10 82 R9 M18  
C-8 32  
T.O.F.

Th-F. Dec 2 19:00-19:05 UT F.L. 2870  
Sun in the - several hints of prominence  
P.S.T. 30

2006

and Canis Minor.

18X50 ISb: areas of Orion, area of R Lep, NGC 2244, Christmas Tree cluster and S Mon, M35, M36, M37, M42, M44, Pleiades, Hyades, bright stars of Aries, some stars in the constellation Auriga.

M.-T. Dec. 18-19 03:30-04:00 UT FL: la 59(?)T5(1/p) ne; 18X50 ISb  
 ne: Castor and Pollux, Orion's bright stars, and those of Pleiades  
 18X50 ISb: <sup>areas of</sup> Auriga and Taurus and Aries, M42, M43, and other areas of Orion including CK Ori and VV Ori, area of R Lep, M35, M36, M37, M38.  
 5:45 - 5:50 a.m. E.S.T.  
 M. 10:45-10:50 UT FL: lanai 59(?)T5(1/p) ne  
 -stars of the Big Dipper high in the N, and Arcturus and Spica quite high in the E

T.-W. Dec. 19-20 03:00-03:40 UT FL: la 59(?)T5(1/p) ne; 18X50 ISb  
 ne: Orion and nearby constellations with the Pleiades very near the zenith at about the time of the end of the session.

18X50 ISb: areas of Orion including area of CK Ori, M42, M43, area of R Lep, but the star itself was difficult to see under the conditions, M35, M36, M37, M38, Pleiades, Hyades, area of bright stars of Aries, Christmas Tree cluster and S Mon, NGC 2244, AX Mon, Pleiades Star and area nearby.

5:55 - 6:00 a.m. E.S.T.  
 M. 10:55-11:00 UT FL: lanai 59(?)T5(1/p) ne  
 -stars of Big Dipper high in N., Arcturus and Spica well up in the E., and bright Jupiter just above the roof of a condo to the E.

W.-Th. Dec. 20-21 03:55-04:05 UT FL: la 59(?)T3 (temporarily) ne; 18X50 ISb  
 ne: Just a few stars were seen as clouds moved in from



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the East. Rigel and the stars of the Belt of Orion could be seen among the broken clouds.

18X5015b: The 3 Belt Stars of Orion and the area of M42 could be seen with binoculars.

<sup>6:15-6:18 a.m. E.S.T.</sup>  
m. 11:15-11:18 UT FL:lanai twl ne

After the beginning of astronomical twilight I observed briefly under conditions of a few clouds, and saw Arcturus and Spica high in the E and Jupiter about  $10^\circ$  above the E. horizon (and about  $6^\circ$  above the roof of a condo across the pond) and some of the bright stars of the Big Dipper high in the N.

<sup>6:05-6:10 a.m. E.S.T.</sup>  
• Th.-F. Dec. 21-22 m 11:05-11:10 UT FL:lanai twl ne; 18X5015b

ne: With twilight becoming evident above the E. horizon, I observed Arcturus and Spica high in the E., and some of the stars of the Big Dipper high in the N., and Jupiter about  $7^\circ$  above the E. horizon.

18X5015b: Jupiter was seen in the E.

• W.-Th. Dec. 27-28 04:25-04:30 UT FL:K 58(1)T6(Vp; fgm) ne

I observed briefly with the moon (just 14 hours approximately after First Quarter, which was on Dec. 27 at 14:48 UT) about  $20^\circ$  above the WSW horizon and Orion and the other bright stars of winter high in the SSE. Saturn was up about  $30^\circ$  in the E. Canopus was about  $10^\circ$  above the SE horizon.

<sup>6:15-6:20 a.m. E.S.T.</sup>  
m. 11:15-11:20 UT FL:lanai twl ne

Early in twilight I observed the E. sky seeing Arcturus and Spica and Jupiter near Antares (See diagram), and also some stars of the Big Dipper high in the N.



Arcturus

Spica

the stars of the Belt of Orion  
could be seen  
around the broken clouds.  
The 3 Belt  
stars of Orion and the ones  
of M42 could be seen with binoculars.

the stars of the Belt of Orion  
could be seen  
around the broken clouds.  
The 3 Belt  
stars of Orion and the ones  
of M42 could be seen with binoculars.

After the beginning  
of twilight, I observed  
the stars of the Belt of Orion  
and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

After the beginning  
of twilight, I observed  
the stars of the Belt of Orion  
and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

On Dec 21-22 M. 11:05 AM  
I observed the stars of the Belt  
of Orion and the ones of M42  
with binoculars. The stars  
of the Belt of Orion and  
the ones of M42 were  
seen with binoculars.

2006 • Th.-F. Dec. 28-29 03:20-03:25 UT FL: la 58(?) T5 (1/p; gml) ne

With a bright gibbous moon high in the W, I observed briefly seeing Orion and the bright stars of winter high in the SE, Saturn was seen about  $15^\circ$  above the E horizon. The Pleiades and Hyades were very high and not far from the zenith.

M. <sup>6:20-6:25 a.m. E.S.T.</sup> 11:20-11:25 UT FL: lanai twl ne; 18X50 ISb

ne: Jupiter brilliant about  $15^\circ$  above the E horizon during twilight with Antares visible to the right and down from it, and Arcturus and Spica seen high in the E.

18X50 ISb: Jupiter and Arcturus and some other stars of Scorpius seen above the roof of a condo across the road, and also Mars seen down and to the left from Jupiter.

• Sa.-Su. Dec. 30-31 03:45-03:50 UT FL: la 58(?) T4 (1/p; gml) ne

I observed briefly with a very bright gibbous moon about  $20^\circ$  or less W. of the Zenith, seeing Orion and the bright stars of winter high in the SE and Canopus about  $10^\circ$  above the SE horizon. Saturn was seen about  $20^\circ$  above the ENE horizon with Regulus about  $6^\circ$  below it.

2007 • T.-W. Jan. 2-3 <sup>M. 5:45-5:50 a.m. E.S.T. lanai</sup> 10:45-10:50 UT FL: <sup>lanai</sup> 58(?) T1 (1/p; cloud) ne

I briefly observed in the lanai just before the beginning of morning astronomical twilight, but the clouds were very widespread and I saw only two stars, Arcturus and Spica high in the E, and Jupiter low in the E.

• W.-Th. Jan. 3-4 03:10-03:15 UT FL: la <sup>clouds</sup> 5(?) T23 (1/p; fml) ne

I observed briefly with very few stars visible because of the

Dec 28-29 03:00-05:00 UT (10:00-12:00 PM)  
 With a bright gibbous moon high in the W. I  
 observed briefly seeing Orion and the bright stars of  
 winter high in the SE. Saturn was seen about 15°  
 above the E. horizon. The Pleiades and Arcturus were  
 very high and in full from the zenith.  
 M. 11:00-11:30 UT (12:00-12:30 PM) no: 18X2012P  
 12: Jupiter brilliant about 15° above the E  
 horizon during twilight with Arcturus visible  
 to the right and some fainter stars.

18X2012P: Jupiter and Arcturus and some  
 other stars of Scorpius seen above the  
 roof of a shed across the yard and also  
 Mars seen down and to the left from  
 Jupiter.

Dec 30-31 03:00-05:00 UT (10:00-12:00 PM) no  
 I observed briefly with a very bright gibbous moon  
 about 30° or less W. of the zenith seeing Orion and  
 the bright stars of winter high in the SE and  
 Capricorn about 10° above the SE horizon. Saturn  
 was seen about 40° above the E horizon  
 with Regulus about 10° below it.

Jan 2-3 10:00-11:00 UT (10:00-11:00 PM) no  
 I briefly observed in the main just before the  
 beginning of morning astronomical twilight but the clouds  
 were very widespread and I saw only two stars,  
 Arcturus and Spica high in the E. and Jupiter  
 low in the E.

Jan 3-4 03:00-05:00 UT (10:00-12:00 PM) no  
 I observed briefly with very few stars visible because of the

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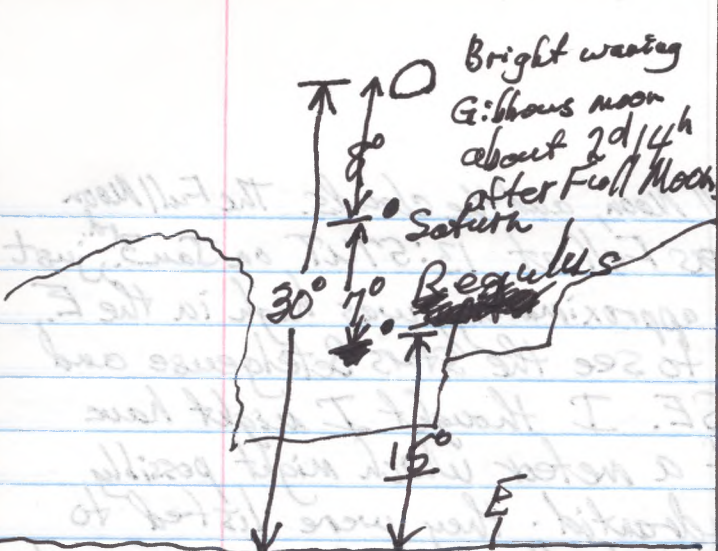
light pollution, the Full Moon, and the clouds. The Full Moon (which was listed as Full at 13:57 UT on Jan 3<sup>rd</sup>, just 13 1/2 hours previously approximately) was high in the E, and I was able to see the stars Betelgeuse and Rigel high in the SE. I thought I might have seen one flash of a meteor which might possibly have been a Quadrantid. They were listed to have reached their peak about 2 hours previously at 1 UT on Jan. 4<sup>th</sup>.

3:35-4:35 UT FL:la SPT 3-4 (1p; full but fewer clouds) ne  
Hoping possibly to see a few Quadrantid Meteors I observed for one hour with the Full Moon very high in the sky, but with fewer clouds than previously. However, I saw few, if any, meteors, possibly the glow of one.

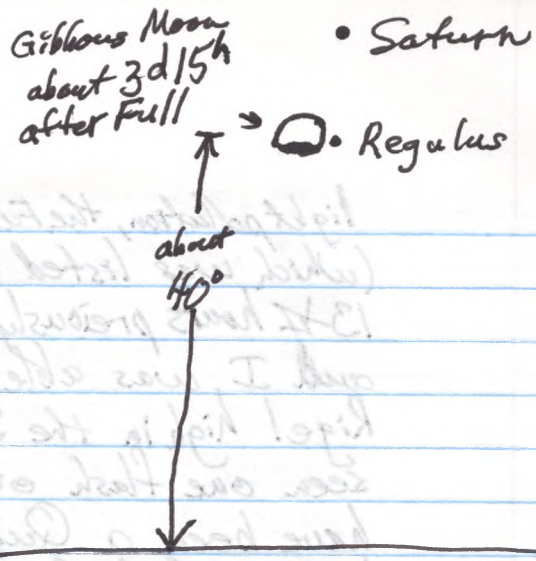
5:50-5:55 a.m. E.S.T.  
M. 10:50-10:56 UT FL:lanai + outside lanai SPT 3 (1p; full) ne  
Right at the beginning of astronomical twilight, at about 10:52 UT, with the very bright Full Moon about 30° above the W. horizon, I saw Jupiter in the E. and Arcturus and Spica high above it and in N. some of the stars of the Big Dipper very high in the sky.

- Th.-F. Jan. 4-5 a.m. 5:55-6:15 a.m. E.S.T. 10:55-11:15 UT FL. in + outside lanai twl ne; 18x50sb  
ne: Jupiter in the E., Arcturus and Spica high in the E., some stars of the Big Dipper high in the N., Vega in the NE about 20° above the horizon, very bright gibbous moon about 40° above the W. horizon.

18x50sb: Under a very bright sky because of the moonlight, I looked for Comet McNaught (2006 P1) but was not sure of seeing it. I looked to the left of, and down from, Jupiter. I also observed Antares and other stars of Scorpius to the right from Jupiter and Mars to the left from Jupiter, and some of the stars



2007, Jan. 6 3:40 UT View to E, showing Moon, Saturn, and Regulus.



2007, Jan 7, 07:40 UT View to E with moon about 40° above E. horizon.

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of Lyra near Vega in the NE. Besides the sky brightness from the moonlight, there was also some cloud low in the E, which may have slightly hindered the chances of seeing the comet.

- F.-S. Jan. 5-6 <sup>10:40 - 10:45 p.m. E.S.T.</sup> 03:40 - 03:45 UT FL: in SBT 5 (Up; gnd) <sup>ne</sup>  
After returning from a hockey game at Gemina Arena (Florida Everblades & Charlotte Checkers) I observed briefly under a sky illuminated by a bright gibbous moon  $30^\circ$  above the E. horizon. (See diagram.) Orion and the bright "stars of winter" were high in the SE. Canopus was about  $10^\circ$  above the SE. horizon. Saturn was seen in the E, and Regulus below it.

- - M. <sup>6:05 - 6:20 a.m. E.S.T.</sup> 19:05 - 11:20 UT FL: in and outside lanai <sup>fwl ne; 18X501sb</sup>  
ne: Jupiter up about  $15^\circ$  in the E; Arcturus and Spica high in the E.; Vega in the NE; stars of the Big Dipper high in the N.; gibbous moon, and Saturn and Regulus west of the zenith.  
18X501sb: Jupiter and Mars and Antares and some stars of Scorpius in the E; also, I scanned the lower part of the E. sky to the left from Jupiter and Mars hoping to catch a glimpse of Comet 2006 PL (McNaught), but did not knowingly see it.

- S.-S. Jan. 6-7 <sup>place</sup> 04:40 - 04:45 UT FL: Joe + Candee's <sup>SBT 6 (Up; gnd) ne</sup>  
After a visit at Joe + Candee's place, Denise and I pointed out some bright stars and constellations to Joe and Candee, Bob and Janet Lonicka, and Frank and Irene Rickardellio, namely the winter constellations high in the SSE, Canopus, and in the E. Saturn, the gibbous moon about  $40^\circ$  degrees above the horizon and Regulus less than  $1^\circ$  from the edge

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of light near top in the NE. Besides the sky brightness from the twilight, there was also some cloud low in the E, which may have slightly increased the chance of seeing the comet.

After returning from a backpacking at Government (Faint Eridani, Galactic Center) I observed briefly in a sky illuminated by a bright diffuse nebula 30° above the E horizon. (See diagram) Other and the bright stars of winter were high in the SE. Progress was about 10° above the SE horizon. Saturn was seen in the E, and Regulus

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After returning from a backpacking at Government (Faint Eridani, Galactic Center) I observed briefly in a sky illuminated by a bright diffuse nebula 30° above the E horizon. (See diagram) Other and the bright stars of winter were high in the SE. Progress was about 10° above the SE horizon. Saturn was seen in the E, and Regulus

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of the moon. The time of the conjunction was listed as 5<sup>h</sup> UT with the star 1.2° from the centre of the moon (See diagram on previous page.)

- S.-M. Jan 7-8 23:00-23:55 UT FL: Gulf shoreline tul ne; 18X5015b  
ne: Venus appeared at about 23:11 UT in the WSW, about 15° above the horizon. Later Altair was seen and also Vega and Deneb.

- looked for

C/2006 P1 (McNaught)

18X5015b: With the binoculars I carefully scanned the horizon area to the right of Venus hoping to see Comet 2006 P1 (McNaught) but did not knowingly see it.

03:10-03:30 UT FL: la 58° N 15 (1/10 gal) ne; 18X5015b

ne: bright stars of winter high in the SE, Saturn well up in the E; bright gibbous moon rising above buildings across the pond at the beginning of the session - later further up in the sky; Pleiades and Hyades W. of the zenith. Algol near minimum.

18X5015b: M42, M43 and area, areas of Orion, M41, area of R Lep, NGC 2244 and area, Christmas Tree cluster and S Mon and area, M35, M36, M37, M38, area of Aries's brightest stars.

6:00-6:15 a.m. E.S.T.

- M 11:00-11:15 UT FL in + outside lanai tul ne; 18X5015b

ne: About 7 minutes after the beginning of astronomical twilight I observed Jupiter and Antares in the E, with Jupiter up about 20° above the horizon, Arcturus and Spica very high in the E, the gibbous moon SW of the zenith and ~~Pleiades~~ about 15° west of it and Saturn about 8° further W, and Vega in the NE.

18X5015b: I scanned the horizon to the E and ENE for the comet (C/2006 P1 (McNaught)) but was not sure of seeing it. I also saw Jupiter and



at the moon. The time of the conjunction was listed as 2:11 UT with the star 1.2 from the center of the moon (see diagram on previous page).

2-M Jan 7-8 23:00-23:22 UT FT: Galt station and no. 18202  
no. Venus appeared at about 23:11 UT in the WSW about 12° above the horizon. Later it was seen and also Vega and Deneb.

18203: With the binoculars I carefully scanned the horizon over to the right of Venus being to see Comet 91 (McNaught) but did not manage to see it.

- looked for comet 91 (McNaught)

23:00-03:30 UT FT: 28:12 (18204) no. 18203  
no. bright stars of winter high in the SE. Saturn well up in the E; bright stars near rising the background across the pond at the beginning of the session - later further up in the sky; Pleiades and Hyades W. of the Zenith. Alt. near minimum.

18205: M42, M3 and area, cross of Orion, M41, cross of Pleiades Messier and area, Christmas Tree stars and 2 hrs and area, M42, M41 and area of Orion's belt.

Stars.  
6:00-2:00 AM FT: 11:11-11:12 (18206) no. 18205

no. About 2 minutes after the beginning of astronomical twilight I observed Jupiter and Saturn in the E with Jupiter up about 20° above the horizon. Mercury and Venus were high in the E, the others near SW of the zenith and ~~about 15 west of it~~ and Saturn about 8° further W, and Venus in the NE. 18207: I scanned the horizon to the E and SE for the comet (C/2006 P1 (McNaught)) but was not sure of seeing it. I also saw Jupiter and

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some of the stars of the constellation Scorpius, and also Mars down and to the left from Jupiter, and also some of the bright stars of the constellation Lyra.

M.-T. Jan. 8-9 02:00-03:00 UT FL: (a s?) T 5-3 (increasing cloud) ne; 18X50ISb  
ne: bright stars of winter in the SE.

18X50ISb: M41, M42, M43, areas of Orion, area of R Lep, M35, M36, M37, M38, Pleiades, Hyades, NGC 2244 and area, Plaskett's Star and area, Christmas Tree cluster and S Mon, area of Castor and Pollux.

5:30-6:00 a.m. E.S.T.  
M. 10:30-11:00 UT FL: in + outside lanai S-? T6 (1p; gull); twl ne; 18X50ISb

ne: Jupiter moving up from  $15^\circ$  to  $20^\circ$  above the horizon, Antares and some stars of Scorpius, Big Dipper high in the N, Vega in NE, Arcturus and Spica high in the E, bright gibbous moon very high and S. of the zenith, Regulus and Saturn SW of the zenith

18X50ISb: I scanned the E sky above the houses across the pond hoping for a chance to see the comet C/2006 P1 (McNaught), but did not see it. I also observed Jupiter and at least 3 of its moons, and some of the bright stars of Lyra.

T.-W. Jan. 9-10 02:05-03:05 UT FL: (a s?) T 3-5 (1p; scattered clouds) ne; 18X50ISb  
ne: bright stars of winter in the SE; Canopus low in the SE; Saturn in the E.

18X50ISb: M41, M42, M43, areas of Orion, area of R Lep; NGC 2244 and area including Plaskett's Star, Pleiades, Hyades, M35, M36, M37, M38.

5:45-6:30 a.m. E.S.T.  
M. 10:45-11:00 UT FL: outside lanai S 8 T 4-5 (1p; some cloud) ne; 18X50ISb  
ne: Jupiter, Mars to its lower left, Antares to its lower right and other stars of Scorpius, Big Dipper high in N, Arcturus and Spica high in E, near Last Quarter Moon SE of the

some of the stars of the constellation Scorpion and also  
was down only to the left from Jupiter, and also  
some of the bright stars of the constellation Lyra.

M.T. Jan 8-9 02:00-03:00 NT Ft. La. 2877 23 increasing cloudiness  
no: bright stars of winter in the SE.  
RX2012: M41, M42, areas of Orion, areas of Lyra,  
M32, M31, M38, Pleiades, Hyades, M43, M44  
Plaskett's Star and area, Christmas  
and area

Three clusters and 2 Nov, area of (Leda and others  
2:30-3:00 M.T. 2:30-3:00 NT Ft. La. 2877 23 increasing cloudiness  
M. 10:30-11:00 NT Ft. La. 2877 23 increasing cloudiness  
no: Jupiter rising up from 12° to 20° above the horizon,  
Antares and some stars of Scorpion, Big Dipper high  
in the N. high in NE, Antares and Pleiades in  
the E, bright gibbons near very high and S of the  
SE, Regulus and Saturn, 21 of the month  
RX2012: I scanned the E sky above the houses  
across the yard having fair chance to see the  
great cluster (M42/M43) but did not see it.  
I also observed Jupiter and at least 3 of its  
moons, and some of the bright stars of Lyra.

T.W. Jan 9-10 02:02-03:02 NT Ft. La. 2877 23 increasing cloudiness  
no: bright stars of winter in the SE; Capricorn low in  
the SE; Saturn in the E.  
RX2012: M41, M42, areas of Orion, areas of  
Pleiades, M43, M44, and area including  
Plaskett's Star, Pleiades, Hyades,  
M32, M31, M38.  
M. 10:42-11:00 NT Ft. La. 2877 23 increasing cloudiness  
no: Jupiter was to the lower left, Antares to its lower right  
and other stars of Scorpion, Big Dipper high in N, Antares  
and Spica high in E, new last quarter moon SE of the

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zenith; Regulus and Saturn SW of the zenith.  
18X5015b: Jupiter, Mars, Antares, other stars of Scorpius, Vega and bright stars of Lyra in the NE. I scanned the sky above the rooves of the condos across the pond in the very faint possibility of seeing Comet McNaught, but did not see it. Astronomical twilight was scheduled as beginning at 10:53 UT, about midway during the observing session.

- M 6:05 - 6:15 a.m. E.S.T.  
• W.-Th. Jan. 10-11 11:05 - 11:15 UT FL: in+outside lanai twl ne; 18X5015b  
ne: Shortly after astronomical twilight began (at 10:53 UT) I observed Jupiter in the E, and Antares down slightly and to its right, and Vega in the NE, the Big Dipper high in the N, Arcturus and Spica very high in the E, the Last Quarter Moon about  $3^\circ$  from Spica and to its right (the time of L. Q. being listed as 12:45 UT, about 1.5h away), Saturn and Regulus SW of the zenith.  
18X5015b: Jupiter and at least 3 of its moons, Antares and some other stars of Scorpius, Mars considerably lower than Jupiter and to its left, some of the bright stars of Lyra in the NE, I scanned along the horizon but had very little hope still of seeing Comet McNaught.

- Th.-F. Jan. 11-12 04:10 - 04:15 UT FL: la S&E? 5-6 (1/2p; some cloud) ne  
- bright stars of winter high in the SE, Aldebaran and the Pleiades W. of the zenith, Regulus and Saturn well up in the E.  
- <sup>16:15 - 6:20 a.m. E.S.T.</sup>  
m. 11:15 - 11:20 UT FL: in+outside lanai twl ne; 18X5015b  
ne- I observed during morning twilight at possibly the morning of the year's latest beginning of astronomical twilight at this latitude (namely at 11:15 UT though the following

18:20: Jupiter, Mars, Antares, other stars of Scorpion  
 Vega and bright stars of Lyra in the NE. I  
 scanned the sky above the horizon of the  
 Corvus across the field in the very faint  
 possibility of seeing Comet McNaught, but did  
 not see it. Astronomical twilight was scheduled  
 as beginning at 19:53 UT, about midway during  
 the observing session.

18:20:126 - Jupiter, Mars, Antares, other stars of Scorpion  
 Vega and bright stars of Lyra in the NE. I  
 scanned the sky above the horizon of the  
 Corvus across the field in the very faint  
 possibility of seeing Comet McNaught, but did  
 not see it. Astronomical twilight was scheduled  
 as beginning at 19:53 UT, about midway during  
 the observing session.

18:20:126 - Jupiter, Mars, Antares, other stars of Scorpion  
 Vega and bright stars of Lyra in the NE. I  
 scanned the sky above the horizon of the  
 Corvus across the field in the very faint  
 possibility of seeing Comet McNaught, but did  
 not see it. Astronomical twilight was scheduled  
 as beginning at 19:53 UT, about midway during  
 the observing session.

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morning was listed as having the same time). I saw Jupiter, Antares and possibly a few stars of Scorpius in the E, Arcturus and Spica high in the E, the large crescent moon up about  $50^\circ$  in the ESE and about  $10^\circ$  down from Spica, Regulus and Saturn SW of the zenith, Vega in the NE, the Big Dipper in the N and very high. 18X50ISb: Jupiter and at least 2 of its moons, some stars of Scorpius, Mars down and to the left from Jupiter, some of the stars of Lyra. I also scanned along the horizon but did not hold out any hope of still seeing the comet, though it was almost certainly still visible at Canadian latitudes.

F.-S. Jan. 12-13 03:40-04:20 UT FL: 1a SBOJTG (1/p) ne; 18X50ISb  
ne: bright stars of winter high in the SE, Canopus in the SE about  $10^\circ$  above the horizon, Regulus and Saturn well up in the E.

18X50ISb: areas of Orion, M42, M43, area of Rlep, M35, M36, M37, M38, Hyades, Pleiades, NGC 2244 and nearby areas, Christmas Tree cluster and S Mon, Plaskett's Star, M46, M47.

5:45 - 6:05 p.m. E.S.T. ~~point~~ Beach  
Sa.-Su. Jan. 13-14 22:45 - 23:05 UT <sup>sunset + twil</sup> ne; 18X50ISb

ne: Denise and I went to Bonita Beach on the Gulf of Mexico hoping possibly to see Comet 2006 P1 (McNaught) which was reported as being extremely bright but very near the sun. Christine Kulyk had phoned Denise just a few hours before saying she had seen it about  $5^\circ$  from the sun during the day!! The sky to the west was faintly cloudy but there were some breaks in horizontal streaks?



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just above the horizon over the Gulf of Mexico.  
We saw the sun set at about 22:54 UT  
(5:54 p.m. E.S.T.) but did not see the comet.  
18x50 ISb: I scanned the area above the horizon  
but did not see the comet.

03:05-03:25 UT FL:1a S8T4-5 (1/p; some cirrus cloud) ne; 18x50 ISb  
ne: bright stars of winter high in the SE, Canopus  
in the SE, Jupiter and Saturn in the E.

18x50 ISb: Hyades, Pleiades, M41, M42, M43, M36, M37,  
M38, M46, M47, several areas of Orion, area  
of R Lep, NGC 2244, Plaskett's Star and  
area, Christmas Tree cluster and S Mon.  
Cirrus clouds moved in from the W in the latter  
part of the observing session.

S.-M. Jan. 14-15 03:20-04:00 UT FL:1a S8T5-6 (some cloud) ne; 18x50 ISb.  
ne: stars of winter high in the SE, Canopus about  
10-12° above the SE horizon, Saturn and Regulus  
in the E.

18x50 ISb: M41, M42, M43, areas of Orion including  
CK Orionis, area of R Lep, NGC 2244 and  
Plaskett's Star and surrounding area,  
Christmas Tree cluster and surrounding area,  
including S Mon, M35, M36, M37, M38, M46,  
M47, Hyades, Pleiades, & Persei cluster  
in Perseus, Saturn and Regulus.

M.-T. Jan. 15-16 5:30-5:35 a.m. E.S.T. cloud 18x50 ISb  
10:30-10:35 UT FL: in+outside knai S? T3 (scattered) ne; 1  
ne: Jupiter and Antares and some stars of Scorpius in the  
E., some stars of the Big Dipper high in the N, Arcturus  
and Spica high in the E, Vega in the NE,  
18x50 ISb: Jupiter and at least 2 moons, Antares and  
some stars of Scorpius.





2007 T.-W. Jan. 16-17 02:35-03:40 UT FL: Ia S?T3-5 (1/p; some cloud) ne; 18X50ISb  
ne: stars of winter high in the SE; Hyades and Pleiades SW of the zenith; Saturn and Regulus in the E.

18X50ISb: M42, M43, areas of Orion including the variable stars CK Ori, V1370 Ori, V1375 Ori, V1377 Ori, V1148 Ori, VV Ori (See UDSA 116) M41, M46, M47, M35, M36, M37, M38, Pleiades, Hyades, NGC 2244 and surrounding area including Plaskett's Star, Christmas Tree cluster and S Mon, M44, Saturn, area of R Lep.

W.-Th. Jan. 17-18 02:45-03:45 UT FL: Ia S?T6 (1/p) ne; 18X50ISb  
ne: stars of winter in the SE; Saturn and Regulus in the E.

18X50ISb: M41, M42, M43, various areas in Orion, the following variables in Orion: CK, V1370, V1375, V1377, V1148, VV. (See UDSA 116), M35, M36, M37, M38, Pleiades, Hyades, area of R Lep, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, M44, M46, M47, Saturn and Regulus, & Persei Cluster, area E. of Procyon

Th.-F. Jan. 18-19 03:10-03:40 UT FL: Ia S?T3-6 (some cloud) ne; 18X50ISb  
ne: stars of winter high in the SE; Saturn and Regulus in the E.

18X50ISb: M41, M42, M43, areas of Orion including the variables CK, VV, V1370, V1375, V1377, V1148, V1045, part of Sky Search Area II-7 in Hydra, Pleiades, Hyades, M46, M47, NGC 2244, Plaskett's Star, Christmas Tree cluster

F.-S. Jan. 19-20 03:35-04:20 UT FL: Ia S?T6 (1/p) ne; 18X50ISb  
ne: stars of winter in the SSE; Saturn and Regulus in the E.



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18X50ISb: areas of Orion including the variable stars CK, VV, V1370, V1375, V1377, V1148, V1045, M42, M43, area of R Lep, M41, M44, M47, NGC 2244 and surrounding area, Plaskett's Star, Christmas Tree cluster, area of Sky Search area II-7 in Hydra, Pleiades, Hyades, & Persei Cluster, M35, M36, M37, M38, Saturn and Regulus, M44, M67.

~~Jan 20-21 23:15~~

Jan. 20-21 23:15 - 00:55 UT FL: Bonita Beach twl + S?T<sup>(1/p)</sup> ne; 18X50ISb

ne: Denise and I went to Bonita Beach to have a perfect horizon possibly to see the great sweeping tail of Comet McNaught, now in the Southern Hemisphere skies, but with its huge tail having been seen and imaged in Colorado (and probably elsewhere) over the past few days. We saw the crescent moon and Venus in the W. For a while I thought I might be seeing the light from the comet's tail about 30° to 40° to the right from the moon, but I was certainly not sure  
18X50ISb: Crescent moon, Venus, areas of the W. sky, M31, M33.

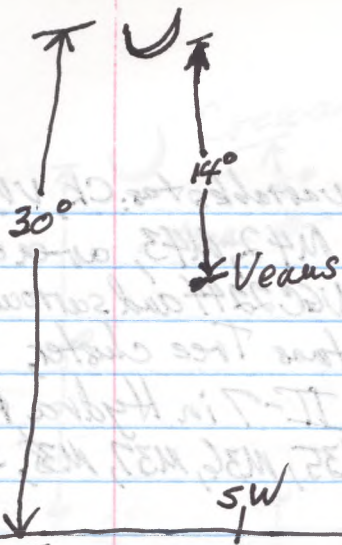
Before leaving the beach I saw the crescent moon very close to the horizon, with part of the crescent disappearing before all of the crescent.

04:20-04:40 UT FL: la S?T<sup>(1/p)</sup>

ne; 18X50ISb

ne: stars of winter high in the SE, Saturn and Regulus high in the E, Canopus about 15° above the SE horizon

18X50ISb: M41, M42, M43, area of R Lep, M46, M47, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, M35, M36, M37, M38, Hyades, Pleiades, Sky Search area II-7 E. of Procyon, M44, M67, Saturn and Regulus.



2007 Jan. 21 23:20 UT: View to SW of  
Crescent moon and Venus

Sky Search Areas:

- I - 4:5<sup>h</sup>-6<sup>h</sup> 0°--10°
- II - 7:8<sup>h</sup>-9<sup>h</sup> 0°-+10°\*

\* containing "Head of Hydra" stars:

- 4 ♂
- 5 ♂
- 7 ♀
- 11 ♀
- 13 ♀
- 16 ♀

Sky Search Areas:

	R.A.:	Dec.
(1.) I-4	5 <sup>h</sup> -6 <sup>h</sup>	0°--10°
(2.) II-7	8 <sup>h</sup> -9 <sup>h</sup>	0°-+10°

UDSA Charts

(1.) I-4	116	117
	136	137
(2.) II-7	94	
	114	

2007 S.-M. Jan. 21-22 23:20-23:25 UT FL:1a tw1 ne

- During bright twilight, about 20 minutes after sunset I observed a 3-day old crescent moon about  $30^\circ$  above the SW horizon with Venus about  $14^\circ$  below and very slightly to the right. Earth shine was readily visible on the lunar surface.

02:20-03:20 UT FL:1a SPT6 (Vp; briefly 5: cirrus) ne; 18X50ISb  
ne: stars of winter high in the SE; Canopus about  $14^\circ$  above the SE horizon; Saturn and Regulus well up in the E.

18X50ISb: M41, M42, M43, various areas and a good number of variable stars in Orion, area of R Lep, M46, M47, M35, M36, M37, M38, Pleiades, Hyades,  $\alpha$  Persei cluster, area of M1, NGC 2244, Plaskett's Star and area near it, Christmas Tree cluster and S Mon, neighborhood of Sky Search area II-7 (R.A.:  $8^h-9^h$ ; Dec.:  $0^\circ-+10^\circ$ ) containing the "Head of Hydra", including the stars  $\delta, \epsilon, \eta, \epsilon, e,$  and  $\zeta$ . (See UDSA 94 and 114), M44, M67

<sup>6:05-6:10 A.E.S.T.</sup>  
- m. 11:05-11:10 UT FL: in + outside lanai tw1 ne

- About 10 min. after the beginning of astronomical twilight I observed Jupiter up about  $30^\circ$  in the E., with Antares and about 2 other stars of Scorpius to its right, Vega in the NE, the Big Dipper high in the N. and Polaris and Kochab lower in the N., Arcturus and Spica very high in the E., and Saturn and Regulus W. of the zenith.

M.-T. Jan. 22-23 03:00-03:30 UT FL:1a SPT6 (later cloud) ne; 18X50ISb  
ne: I observed for a while until heavy clouds moved in from the W., but just after I quit observing, there were indications that the sky might be again quickly clearing. I saw Canopus in the SE, and the



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stars of winter high in the SE, and Saturn and Regulus in the E.

18X50ISb: M41, M42, M43, a good number of variable stars in various areas of Orion, area of R Lep, M35, M36, M37, M38, M46, M47, Pleiades, Hyades, monitoring briefly of part of Sky Search area #II-7 (See previous page.), NGC 2244, area of Plaskett's Star, Christmas Tree cluster and S Mon, Saturn and Regulus.

T.-W. Jan. 23-24 03:15-03:45 UT FL: 1a S(PT)5-G(1/p;cm) ne, 18X50ISb  
ne: With the 5-day old crescent moon just above the roof of the condo across the street, I observed the stars of winter high in the SE. Canopus was lower in the SE, and Saturn and Regulus were up in the E.

18X50ISb: M41, M42, M43, various areas in Orion and variables in Orion, NGC 2244, Plaskett's Star and area, Christmas Tree cluster, M35, M36, M37, M38, M46, M47, Pleiades, Hyades,  $\alpha$  Persei cluster, Kemble's Cascade of stars in Camelopardalis, monitoring of part of Sky Search area #II-7 E. of Trocyon in the constellations Cancer and Hydra, M46, M67.

Th.-F. Jan. 25-26 03:40-03:45 UT FL: 1a S(PT)6(1/p;fgul) ne

I observed briefly after returning from the monthly meeting in Naples of the Everglades Astronomical Society. I saw the bright stars of winter high in the SSE, Canopus up about  $15^\circ$  in the SE, the First Quarter Moon up about  $40^\circ$  in the W, and Saturn and Regulus well up in the E. (At the meeting President Rick Piper talked about solar observing, and Ted Wolfe talked about solar imaging.)



↑  
Arcturus

↑  
Spica

Jupiter

Antares

25°

Mars

5°

E

2007, Jan. 26, 10:45 UT View to E showing Jupiter and Mars.

Jupiter

6°

Antares

35°

Mars  
(seen in binoculars)

E

2007, Jan. 29, 11:10 UT View to E showing Jupiter and Antares.

*[Faint, mostly illegible handwritten notes in the lower half of the notebook pages.]*

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5:45-5:55a.m.E.S.T.  
m. 10:45-10:55 UT FL: outside lanai SRTS(1/p) ne; 18X50ISb

ne: Big Dipper high in the N, Polaris and Kochab in the N, Vega in the NE, Jupiter and Mars in the E. (See Diagram.), some stars of Scorpius, Arcturus near the zenith and Spica, Regulus and Saturn W. of the zenith.

18X50ISb: Jupiter and 1 or 2 of its moons, some stars of Scorpius and M4, Elyrae and some stars of Lyrae and probably M57, Mars just above the roof of the condo across the pond.

F.-S. Jan. 26-27 03:10-04:00 UT FL: la S?TS(1/p; gm!) ne; 18X50ISb

ne: stars of winter high in the SSE, Canopus up about  $18^\circ$  in the SE, bright gibbous moon about 1 day after First Quarter up about  $50^\circ$  above the W. horizon and about  $7^\circ$  from the Pleiades.

18X50ISb: M42, M43, areas of Orion including a good number of variable stars, area of R Lep, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, M46, M47, series of stars NE of Sirius including  $\epsilon$ ,  $\gamma$ ,  $\mu$ , and  $\theta$  C Ma used in star-hopping to M50, M35, M36, M37, M38, Pleiades, Hyades, monitoring of part of Sky Search area # II-7 E. of Procyon in the constellations Cancer and Hydra, M44, M67, Saturn and area of Regulus.

S.-M. Jan. 28-29<sup>m</sup> 6:10-6:20a.m.E.S.T.  
11:10-11:20 UT FL: in outside lanai twl ne; 18X50ISb

ne: Jupiter seen very bright in the E in twilight and Antares and three of the stars of



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scorpius, and the "Handle Stars" of the Big Dipper high in the N, and Arcturus and Spica very high in the E.

18X50LSb: Jupiter and at least one of its moons, Mars well down and to the left from Jupiter, Antares and other stars of Scorpius, Vega and the bright stars of Lyra

M.-T. Jan. 29-30 03:30-03:45 UT FL: in + outside (anai S(2)T4 (1/p; some cloud) ne  
: I briefly observed naked-eye while clouds moved in from the W., seeing the stars of winter high in the SSE, Canopus in the SE, the Pleiades WSW of the zenith, a bright gibbous moon only about  $5^\circ$  W. of the zenith, and Saturn and Regulus well up in the E. Clouds eventually moved over the stars of winter that I had been observing in the SSE.

<sup>5:35-5:40 a.m. E.S.T.</sup>  
-M. 10:35-10:40 UT FL: in + outside (anai S(2)T4 (1/p; cloud) ne; in  
ne: Jupiter, Antares in E., Arcturus and Spica very high in E., Vega in the N.E., Big Dipper very high in the N.

18X50LSb: Jupiter and at least one of its moons, some of the bright stars of Scorpius, possibly Mars just above the roof of a condo across the pond, the bright stars of the constellation Lyra in the N.E.

<sup>m. 5:40-5:45 a.m. E.S.T.</sup>  
T.-W. Jan. 30-31, 10:40-10:45 UT FL: in + outside (anai S(2)T1 (1/p; very <sup>cloudy</sup>) ne  
- Amid very extensive clouds, I saw bright Jupiter up about  $25^\circ$  in the E., and Vega in the N.E., and briefly Arcturus near the zenith. Though very extensive, the clouds did not appear to be "heavy" since Jupiter was visible for an extended period of time.

← Vega

Jupiter  
6° ↘ Antares

30°

E  
I

2007, Feb. 1, 10:35 UT. View to E. showing  
Jupiter and Antares.

2007 W.-Th. Jan. 31 - Feb. 1. M. 10:35 - 10:40 UT FL: in + outside lanai S? T5 (1/p; some<sup>cloud</sup>) ne; 18X50ISb

ne: About 15 min. before the beginning of astronomical twilight, I observed Jupiter about  $30^\circ$  above the E. horizon, and Antares to its right, Vega in the NE, Arcturus near the zenith and Spica very high in the SE.

18X50ISb: Jupiter and all 4 of its Galilean moons, Antares and bright stars in Scorpius, M80, Vega and bright stars in Lyra. At the end of the session more clouds moved in from the S.

Th.-F. Feb. 1-2 M. 10:45 - 10:55 UT FL: in + outside lanai S? T4 ne; 18X50ISb

ne: At the beginning of astronomical twilight which was listed as 10:50 UT, I observed under partly cloudy conditions. I saw Jupiter in the E and Antares to its right, Arcturus near the zenith and Spica extremely high in the S., and the Full Moon up about  $30^\circ$  in the W. and Vega in the NE.

18X50ISb: Jupiter, Antares and some of the bright stars of Scorpius in the E., and the bright stars of Lyra in the NE.

T.-W. Feb. 6-7 02:50 - 03:20 UT FL: (a S? T1-5 (1/p; clouds<sup>varying</sup>)) ne; 18X50ISb

ne: I observed amid breaks in the clouds for about the first 20 minutes of a session lasting a bit more than 30 minutes. For the last few minutes the sky started to clear. The stars of winter were high in the ~~SE~~ E., and Saturn was well up in the E.

18X50ISb: M41, M42, M43, M46, M47, M50, NGC 2244, Plaskett's Star, Christmas Tree cluster and S. Men,

Meade Starfinder 12 1/2" (32mm) Dobsonian

Aperture: 318 mm

Focal Length: 1525 mm

Focal Ratio: f/4.8

Ocular: 32 mm - 48X

25 mm - 61X

12 mm - 127X

9 mm - 169X

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Pleiades, Hyades, various areas in Orion, area of R Lep, Saturn, M44, R Leonis appearing unusually bright and probably near maximum, possibly at mag. 6 to 5.5.  
ne: After the end of the session, from about 03:36 to 03:40 UT, I observed the waning gibbous moon rising above the roof of a condo across the pond. Its rising time had been at 03:11 UT.

W.-Th. Feb. 7-8 03:05-03:35 UT FL: la S? T2-3 (1/p; clouds) ne

- Amid scattered cloud I saw a few stars, including Betelgeuse, Bellatrix, Rigel, Saif, Sirius, Castor and Pollux, Aldebaran, and the 3 Belt Stars of Orion. I also saw the Pleiades.

<sup>5:45-5:50 a.m. E.S.T.</sup>  
M. 10:45-10:50 UT FL: in + outside lanai S? T3 (1/p; cloud) ne

- Amid the clouds at about the beginning of astronomical twilight (which was listed as 10:48 UT), I saw Jupiter in the E, Vega well up in the NE, Altair low in the ENE, some of the stars of the Big Dipper high in the N, Arcturus near the zenith, and Saturn and Regulus in the W.

Th.-F. Feb 8-9 02:05-03:40 UT FL: la S? T6 (1/p) ne; 12 $\frac{1}{2}$ "

ne: stars of winter in the SE; Canopus low in the SE; Saturn and Regulus in the E.

12 $\frac{1}{2}$ " : Using the 32mm (48X), 25mm (61X), 12mm (127X), and 9mm (169X) oculars, I observed Saturn seeing also Titan and at least one other moon, probably Rhea. I also observed M42, seeing the Trapezium quite clearly defined, and also the Pleiades with the 32mm (48X) ocular.

<sup>6:05-6:10 a.m. E.S.T.</sup>  
M. 11:05-11:10 UT FL: in + outside lanai twl ne

About 18 min. after the beginning of astronomical twilight I observed Jupiter and some stars of Scorpis



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03:40 UT I observed the waning gibbous moon rising above the roof of a camp across the pond. Its rising time had been at 03:11 UT. After the end of the session, from about 03:30 to 04:00 UT, I observed the waning gibbous moon.

W-Th Feb 7-8 03:07-03:30 UT FL: 2.13-2.14 (cloud) no

And scattered clouds I saw a few stars including Betelgeuse, Rigel, Saif, Sirius, Castor and Pollux, Aldebaran and the 3 Bolt stars of Orion. I also saw the Pleiades. M 10:45-10:50 UT FL: 2.13-2.14 (cloud) no. About the cloud at about the beginning of astronomical twilight (which was later at 10:48 UT) I saw Jupiter in the E. Vega well up in the NE. Altair low in the E. Some of the stars of the Big Dipper high in the N. Arcturus near the zenith. Old Saturn and Regulus in the W.

Th-Fri Feb 8-9 03:02-03:40 UT FL: 2.14 (1/2) no: 1.25

NE: Stars of winter in the SE; Gamma low in the SE; Altair low in the E. 1.25" diam the 25mm (48X), 32mm (61X), 45mm (87X) and 50mm (100X) oculars. I observed Saturn 5.7" diam/45X also Titan and at least one other moon. I also observed M13. X 16 - no seeing the Trapezium quite clearly defined and also the Pleiades with the 32mm (61X) ocular. X 12 M 11:02-11:07 UT FL: 2.14 (1/2) no. About 18 min after the beginning of astronomical twilight I observed Jupiter and some stars of spring.

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in the E., some of the stars of the Big Dipper high in the N., the Summer Triangle of stars (Vega, Deneb, and Altair) in the NE, Arcturus near the zenith, Spica very high in the S. with the "almost Last Quarter" Moon about  $14^\circ$  to the E. from Spica, Saturn and Regulus in the W.

S.-S. Feb. 10-11 01:00-03:30 UT FL: Ia S: T6 (1/p) ne; 18X5015b; 12 $\frac{1}{2}$ " 32,25

- our "Saturn star party"

ne: Denise and I had a small "star party" at the condo in the driveway, mainly to show people in the neighbourhood the planet Saturn, but I also pointed out the constellations of the winter sky in the southern part of the heavens, and Saturn in the E. There were about 30 people who attended, including a couple, Wilfred and Hélène from Chelsey, Québec who were staying in the condo across the street, and Bob and Janet Lomicka.

18X5015b: Before the main crowd arrived, I observed M31 in the W. part of the sky.

12 $\frac{1}{2}$ " 32,25: With Denise's Meade Starfinder 32mm Dobsonian, we pointed out Saturn and Titan, M42 including the Trapezium, and the Pleiades. Many people were impressed with Saturn, and we talked about Saturn and other astronomical topics. Saturn had been listed as being at opposition on Feb 10, 19h UT, just 6 hours before the beginning of our "Star-party".

T.-W. Feb. 13-14 03:30-04:30 UT FL: Ia S: T6 (1/p) ne; 18X5015b

ne: Stars of winter in the S.; Saturn in the E.

18X5015b: M41, M42, M43, areas of Orion and various Variable stars in Orion, NGC 2244, Plaskett's Star, Christmas

in the E. zone of the stars of the Big Dipper high in the sky.  
 the Summer Triangle of stars (Vega, Deneb, and  
 Altair) in the NE. Altair was near the zenith. Vega  
 very high in the sky with the "almost lost" star  
 Moon about 14° to the E. from Vega. Saturn  
 and Regulus in the W.

2-2 Feb 10-11 01:00-03:30 UT  
 FT: 2.27 (1/2) MC: 18.2 (1/2) MC: 18.2 (1/2)  
 ne: Deneb and I had a small "star party" at the

cards in the driveway, mainly to show people in  
 the neighborhood the planet Saturn but I also  
 pointed out the constellations of the winter  
 in the southern part of the horizon, and  
 Saturn in the E. There were about 30  
 people who attended, including a couple Wilfred  
 and Hebe from Chazy, Quebec. They were  
 staying in the cards across the street, and  
 Bob and Janet Lavoie.

- our Saturn  
 "star party"

18.2 (1/2): Before the main crowd arrived, I observed  
 M31 in the W. part of the sky.

18.2 (1/2): With Deneb, Vega, Altair, and Titan  
 13.5" 32.22: With Deneb, Vega, Altair, and Titan  
 Discussion: we pointed out Saturn and Titan  
 M42 including the projection, and the heads  
 Many people were impressed with Saturn, and we  
 talked about Saturn and other astronomical topics.  
 Saturn had been listed as being at opposition  
 on Feb 10, 1997. It just 6 hours before the beginning  
 of our "star party".

7-11 Feb 13-14 03:30-05:00 UT  
 FT: 2.27 (1/2) MC: 18.2 (1/2) MC: 18.2 (1/2)  
 ne: stars of winter in the S. Saturn in the E.

18.2 (1/2): M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, 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Tree cluster and S Mon, M46, M47, M35, M36, M37, M38, Pleiades, Hyades, area of R Lep, Saturn, R Leonis at about mag. 6.0, probably quite near its max., area of M65 and M66, but not absolutely sure of seeing them.

W.-Th. Feb. 14-15 03:40-04:20 UT FL: Ia S80T6 (1/p) ne; 18X5015b  
ne: stars of winter high in the S. with Castor and Pollux very near the zenith.

18X5015b: M41, M42, M43, M46, M47, several variable stars in Orion, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, M35, M36, M37, M38, Pleiades, Hyades, area of R Lep, Saturn, R Leonis at, or near, max. at about mag. 6.0, M44.

F.-S. Feb. 16-17 04:00-04:30 UT FL: Ia S(?)T5 (1/p) ne; 18X5015b  
ne: stars of winter in the S.; Saturn high in the E.

18X5015b: M41, M42, M43, M44, M45, M46, M47, M35, M36, M37, M38, M50, areas in Orion and several variable stars in Orion, area of R Lep, Saturn, R Leonis very bright and probably at about mag. 5.9, NGC 2244, Plaskett's Star, Christmas Tree cluster, Hyades cluster, Saturn.

5:30-5:45 a.m. E.S.T.  
- M. 10:30-10:45 UT FL: in/outside lanai S80T6 (1/p) ne; 18X5015b  
ne: Jupiter and Antares up  $35^\circ$  from the E. horizon, some stars of the Big Dipper in the N, the Summer Triangle in the NE, Arcturus very near the zenith, Spica high in the S. Some stars of Scorpius were seen as well as Antares

18X5015b: Jupiter and all 4 of its Galilean moons, M4 and some stars of Scorpius, M6 and M7, areas of Sagittarius, M22. I may have seen Mars below and to the left of Jupiter, but did not distinguish it among some stars of Sagittarius.

Jupiter

Antares

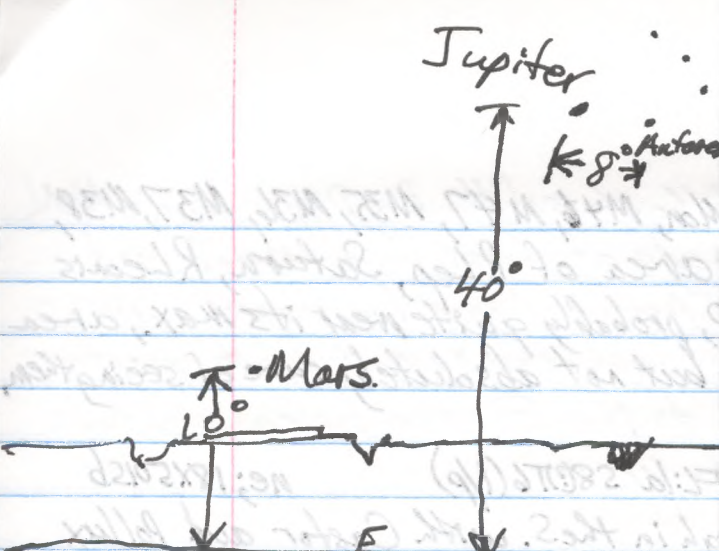
40°

Mars

10°

F

2007, Feb. 19, 11:00 out View to E.  
showing Jupiter and Mars.



2007 S-S. Feb. 17-18 04:45-04:50 UT FL: la S(6) T45 (1/p; some cloud) ne  
- the stars of winter in the S., Castor and Pollux near the zenith, Saturn and some of the stars of the constellation Leo very high in the E. Some clouds moved in from the W.

S-M. Feb. 18-19 03:00-03:20 UT FL: la S9 T6 (1/p) ne; 18X50 ISB  
ne: stars of winter in the S.; Canopus in the SE;  
Saturn and some stars of the constellation Leo seen in the E.

18X50 ISB: M41, M42, M43, areas of Orion and some variables in Orion, M50, M46, M47, NGC 2244, Plaskett's Star, Christmas Tree cluster and S Mon, area of the stars forming the "head of Hydra", M35, M36, M37, M38, Pleiades, Hyades, M44, Saturn, R Leonis very near, or at, maximum, at about mag. 5.8, area of R Lep. The moon Titan may have been seen near Saturn. The transparency was very good.

6:00 - 6:10 am. E.S.T.  
- M. 11:00 - 11:10 UT FL: in + outside la ai kul ne; 18X50 ISB  
ne: I observed the E. sky beginning about 19 min. after the beginning of morning astronomical twilight which began about 10:41 UT, seeing ~~stars~~ Jupiter about  $40^\circ$  above the horizon and Mars about  $10^\circ$  above the horizon, and the Summer Triangle in the NE, some stars of the Big Dipper high in the N, Arcturus near the zenith and Spica very high in the S.

18X50 ISB: Jupiter and its 4 Galilean moons, Mars, M8, M22, M6, M7, M4, some stars of Scorpion, the stars of Lyra in the NE, stars in the area of M20 and M21.

Nova Scorpii 2007

R.A.:  $16^h 57.7^m$

Dec.:  $-32^{\circ} 21'$

Discovered: by Japanese nova hunters  
Yugi Nakamura and Yukio Sakurai  
independently - at 9<sup>th</sup> magnitude -  
on 2007, Feb. 4

Peak brightness: Feb. 16: mag. 3.9

Feb. 19: mag. 4.3.

2007 M-T. Feb 19-20 04:15-04:25 UT FL: Ia S? T5 (1/p) ne

- After returning from the Stars On Ice show at the Germain Arena, I briefly observed seeing the stars of winter in the S. with Castor and Pollux about  $10^\circ$  W. of the zenith and Saturn very high in the E.

5:35-5:50 a.m. E.S.T.  
- M. 10:35-10:50 UT FL: in + outside lanai S? T6 (1/p) ne; 18X5015b  
ne: Jupiter and Antares up about  $40^\circ$  in the E, the Summer Triangle in the NE, some stars of the Big Dipper in the N., Arcturus near the zenith and Spica very high in the S.

18X5015b: Jupiter and 2 of its Galilean moons, nearby stars of Scorpius, M4, M80, M6, M7, M22, M28, M11 and R Scuti and area, M8 and area of M20 and M21, Mars, the bright stars of Lyra,  $\alpha$  and  $\beta$  Librae and the area near them.

T-W. Feb. 20-21 4:20-4:25 UT FL: Ia S? T6 ne

- stars of winter in the S; Castor and Pollux about  $10^\circ$  W of the zenith and Saturn about  $10^\circ$  E. of the zenith; brighter stars of the constellation Leo very high in the E.

6:15-6:20 a.m. E.S.T.  
- M. 11:15-11:20 UT FL: in + outside lanai twl ne; 18X5015b  
ne: Jupiter and some stars of Scorpius in the E, seen in twilight, about 36 minutes after the beginning of morning astronomical twilight which began about 10:39 UT (5:39 a.m. E.S.T.)

18X5015b: Antares and the bright stars of the upper part of the constellation Scorpius,  $\epsilon$  Sco and  $\mu^1$  and  $\mu^2$  Sco and about  $2^\circ$  from  $\epsilon$  Sco the recently discovered Nova Scorpii 2007. It was about 1 degree N. of the star 27 Sco

Nova Sco 2007





2007

(See UDSA164) It was not as bright as E Sco but probably brighter than 27 Sco. It was at RA  $16^h 57.7^m$ , Dec.  $-32^{\circ} 21'$ . It may have been at about mag. 4.5, but I was not absolutely sure. (This nova had been discovered on Feb. 4<sup>th</sup> by Yugi Nakamura and Yukio Sakurai in Japan. This nova is also named V1280 Scorpii.)

W-Th Feb. 21-22 04:50-04:55 UT FL: la sgr 5 (1/p) ne

- stars of winter in the S. and SSW sky, with Pollux about  $15^{\circ}$  W. of the zenith and Saturn about  $10^{\circ}$  E. of the zenith, and stars of the constellation Leo very high in the E, with the star Spica lower in the E.

6:00 - 6:10 a.m. E.S.T.  
- m. 11:00 - 11:10 UT FL: la twl ne; 18x50lsb

ne: About 2/5 minutes after the beginning of morning astronomical twilight which began at about 10:39 UT, I observed, seeing Jupiter and some of the stars of the constellation Scorpius in the E, the Summer Triangle in the NE, some stars of the Big Dipper high in the N, Arcturus near the zenith, Spica high in the S.

18x50lsb: Jupiter and at least 2 of its Galilean moons, M4 M80, Nova Scorpii 2007 about  $1^{\circ}$  N. of 27 Scorpii (See UDSA164.) and about  $2^{\circ}$  NE of E Scorpii. It was at about mag. 4.5. I looked for a reported possible second nova in Scorpius which was supposed to be about  $3^{\circ}$  S. of the one mentioned above, but I was not sure of seeing it. It may have been because it was too faint since it was reported as being at mag. 8 or fainter (It was given as being at R.A.:  $16^h 56^m 59.35^s$ ; Dec.:  $-35^{\circ} 21' 50.2''$ .)

Nova Sco 2007

- looked for second reported nova in Scorpius.

2007

It was not as bright as  $\epsilon$  Sco but probably brighter than  $\delta$  Sco. I found R.A.  $21^h 21^m$ . It may have been at about mag 4.5, but I was not absolutely sure. This name had been discovered on Feb. 14th by Yoji Nakamura and Yukio Sakurai in Japan. This name is also named V1880 Scorpii.

(see WDSALH) It was not as bright as  $\epsilon$  Sco but probably brighter than  $\delta$  Sco. I found R.A.  $21^h 21^m$ . It may have been at about mag 4.5, but I was not absolutely sure. This name had been discovered on Feb. 14th by Yoji Nakamura and Yukio Sakurai in Japan. This name is also named V1880 Scorpii.

W-Thr Feb 21-22 04:50-04:55 UT R.A.  $21^h 21^m$  (16)

- stars of winter in the S. and SW sky, with Polaris about  $45^\circ$  W of the zenith and Saturn about  $100^\circ$  E. of the zenith, and stars of the constellation Leo very high in the E, with the star Spica lower in the E.

- stars of winter in the S. and SW sky, with Polaris about  $45^\circ$  W of the zenith and Saturn about  $100^\circ$  E. of the zenith, and stars of the constellation Leo very high in the E, with the star Spica lower in the E.

nr: About 1/2 hr after the beginning of morning astronomical twilight which began at about 10:30 UT I observed, seeing Jupiter and some of the stars of the constellation Scorpius in the E, the Summer Triangle in the NE, some stars of the Big Dipper high in the N, the four near the zenith Spica high in the S.

nr: About 1/2 hr after the beginning of morning astronomical twilight which began at about 10:30 UT I observed, seeing Jupiter and some of the stars of the constellation Scorpius in the E, the Summer Triangle in the NE, some stars of the Big Dipper high in the N, the four near the zenith Spica high in the S.

WDSALH: Jupiter and at least 2 of its Galilean moons, MT, M80, Nova Scorpii 2007 about NE of  $\epsilon$  Scorpii. It was at about mag 4.5. I looked for a reported possible second nova in Scorpius which was supposed to be about  $3^\circ$  S of the one mentioned above, but I was not sure of seeing it. I then have been because it was too faint since it was reported as being at mag 8 or fainter. (It was given as being at R.A.  $21^h 21^m 25.32^s$ , Dec.  $-32^\circ 21' 50.2''$ )

WDSALH: Jupiter and at least 2 of its Galilean moons, MT, M80, Nova Scorpii 2007 about NE of  $\epsilon$  Scorpii. It was at about mag 4.5. I looked for a reported possible second nova in Scorpius which was supposed to be about  $3^\circ$  S of the one mentioned above, but I was not sure of seeing it. I then have been because it was too faint since it was reported as being at mag 8 or fainter. (It was given as being at R.A.  $21^h 21^m 25.32^s$ , Dec.  $-32^\circ 21' 50.2''$ )

Nova 2007

- looked for second reported novae

2007 ~~Th~~-F. Feb. 22-23 <sup>6:20-6:25 a.m. E.S.T.</sup> m. 11:20-11:25 UT FL: outside lanai twl ne; 18x50ISB

ne: After having tried to observe about at the beginning of astronomical twilight and having found the conditions quite foggy, I observed Jupiter and Antares in the E above the glow of twilight. I also observed Arcturus W. of the zenith.

18x50ISB: Jupiter and at least 2 of the Galilean moons, Antares and some of the stars of Scorpius,  $\epsilon$  Scorpii and  $\mu_1$  and  $\mu_2$  Scorpii, and to the left of  $\epsilon$  Scorpii,  $\zeta$  Scorpii and the Nova Scorpii 2007 (V1280 Scorpii). It was probably still at about mag. 4.5

Nova Sco 2007

F.-S. Feb. 23-24 <sup>6:00-6:05 a.m. E.S.T.</sup> m. 11:00-11:05 UT FL: in + outside lanai twl ne; 18x50ISB

ne: About 23 min. after the beginning of astronomical twilight, which began at about 10:37 UT, I observed Jupiter up about  $40^\circ$  in the E. and Antares to its right and some other stars of Scorpius, Arcturus near the zenith and the Summer Triangle of stars in the NE.

18x50ISB: Jupiter and at least 2 of its moons, M4, M80,  $\epsilon$  Sco and  $\mu_1, \mu_2$  Sco, and the nova, Nova Scorpii 2007 (V1280 Scorpii). It was possibly still at mag. 4.5, brighter than the star  $\zeta$  Scorpii, which was about  $1^\circ$  away.

Nova Sco 2007.

S.-S. Feb. 24-25 00:00-04:00 UT FL: la s.r.TS (sqm; l/p) ne; 12 $\frac{1}{2}$ "

ne: Denise and I set up the telescope in order to observe lunar craters since we had advertised the event in the development and even in Bermuda Park Orion and the stars of winter were visible in the S. Venus was visible in the WSW for about a



2007

Lunar crater  
star party.

half-hour or so before disappearing behind a house  
across the street. Saturn was well up in the E.  
About 30 people showed up to join in the  
observations.

F.Q. Moon  
Saturn

12 1/2", 28, 12: Using the 32cm (12 1/2") Dobsonian  
with the 28mm and the 12mm eyepieces at  
48X and 127X, I showed the guests the  
lunar craters of the First Quarter Moon  
and Saturn with the moon Titan about at  
its maximum extension from the planet (as it  
had been two weeks earlier. In the  
very early part of the session, I had seen  
Venus, but very few, if any of the guests  
saw it before it went behind the house across  
the street. Near the end of the session, I  
also showed one couple M42 and later  
also M41. It was an enjoyable event - sharing  
the love of astronomy with a good number of  
people who had never seen lunar craters or  
the planet Saturn through a telescope

M42  
M41

5:45-5:50 a.m. E.S.T.  
M. 10:45-10:50 UT FL: outside lanai twl ne; 18X5015b

ne: Beginning 9 minutes after the beginning of astronomical  
twilight I observed amid many clouds but did see  
Jupiter and some stars including Antares to  
its right, Vega and Altair in the NE and  
Arcturus near the zenith.

18X5015b: Jupiter, areas of Serpens including  
M4 and M80, E Sco and 27 Sco and the  
nova (V1280 sco) but it was only  
briefly because of the many clouds

Nova Sco 2007.

5:30-5:45 a.m. E.S.T. some cloud  
M.-T. Feb. 26-27 M. 10:30-10:45 UT FL: outside lanai 5:75 (1/px) ne; 18X5015b  
ne: Beginning to observe shortly before the beginning of

2007

Lower crater  
Star party

Left tent area before disappearing behind lower  
across the street. Saturn was well up in the E.  
About 30 people showed up to join in the  
observations

12:15, 28, 12: 15:15 (12:15) Johnson  
with the 28" and the 17" telescopes at  
18X and 12X. I showed the guests the  
lower craters at the First Quarter Moon  
and Saturn with the 28" telescope about at

Johnson  
Saturn

Its maximum elongation from the planet (as it  
had been two weeks earlier. In the  
very early part of the season, I had seen  
Venus, but very low, if any of the guests

saw it before it went behind the house across  
the street. Near the end of the season I  
also showed one couple M42 and later

M42  
M41

also M41. It was an enjoyable event - sharing  
the love of astronomy with a good number of  
people who had never seen lower craters or  
the planet Saturn through a telescope

M. 10:00-10:30 at - E. outside tent NE; 18:20:00

18:20:15: Jupiter after the primary maximum

twilight I observed and saw both Jupiter and  
Jupiter and some stars including Antares to  
its right, Vega and Altair in the NE and  
Antares near the zenith

18:20:25: Jupiter, area of 2000 stars including  
M42 and M41, E. and 21:20 outside

Now see 3007

moon (11:30:00) features only  
briefly because of the moon clouds

M.T. Feb 26-27 M. 10:30-10:45 at E. outside tent NE; 18:20:00  
18:20:15: Jupiter after the primary maximum  
18:20:25: Jupiter, area of 2000 stars including  
M42 and M41, E. and 21:20 outside

2007

astronomical twilight which was at about 10:34 UT, I observed Jupiter up about  $40^\circ$  in the ESE and Antares and some stars of Scorpius to its right, and the Summer Triangle in the NE and Arcturus near the zenith.

18X5015b: Jupiter and 3 of its Galilean moons, M4 and M80 seen faintly, M8, the bright stars of the constellation Lyra,  $\beta$  Cyg, the Nova Sco 2007 (V1280 Sco) to the left from  $\epsilon$  Sco and to the left and up a bit from  $\zeta$  Sco. The nova was perhaps very slightly fainter than when I had seen it two days ago, now perhaps at about mag. 4.7.

Nova Sco 2007  
(V1280 Sco)

6:15-6:20 am E.S.T.  
T.-W. Feb. 27-28 m. 11:15-11:20 UT outside lanai twl ne; 18X5015b  
ne: The sky was very cloudy but I finally saw Jupiter well up in the ESE and Vega in the NE.

18X5015b: Jupiter and 1 of its Galilean moons and Vega and  $\epsilon$  Lyrae among the clouds.

Th.-F. Mar. 1-2 03:15-03:35 UT FL: (a SPT 3-5 (1p; gml; <sup>cloud</sup> some)) ne; 18X5015b  
ne: I observed for a short while under a very bright gibbous moon that appeared almost Full since it was less than 48 hours from the moment of Full Moon. The moon was very high in the E, and Orion and the stars of winter were very high in the S., and Castor and Pollux were in the zenith or quite near to it.

18X5015b: The very bright and "almost Full," Gibbous Moon with Saturn about  $0.7^\circ$  to the right of the S. edge of the moon or to the SSW (on the sky) of the the moon. The time listed for the



# Total Lunar Eclipse of 2007, Nov 3.

UT E.S.T.

- P1 20:16:29 15:16:29
  - U1 21:30:04 16:30:04
  - U2 22:43:49 17:43:49 Locally
  - Q 23:20:56 18:20:56 M.R.: 18:23<sup>E.S.T.</sup>
  - U3 23:58:01 18:58:01 ss.: 18:28
  - U4 01:11:46 20:11:46
  - P4 02:25:27 21:25:27
- First seen at about 23:42 UT (18:42 EST)

2007

Left and up a bit from 27 sec. The moon was  
 perhaps very slightly fainter than when I had  
 seen it two days ago, now perhaps at about  
 mag. 4.7.

The sky was very cloudy but I finally saw  
 Jupiter well up in the ESE and here in the  
 NE.

Jupiter and lot of Galilean moons and  
 Vega and epsilon among the clouds

observed Jupiter and some  
 and the summer  
 near the zenith.

18:50:20: Jupiter and 3 of its  
 and M80 see faintly  
 the constellation to the left from 2:30 on to the

Nov 2, 2007  
 (18:20:20)

Time Feb 27-28 m. 11:12-11:20 UT  
 21:5-2:00 m. 18:20-18:30

the 2. edge of the moon or to the 2.5 (onto  
 with Saturn about 0.7° to the right of  
 quite near to it

18:50:20: the very bright and dustfall. Galilean moon  
 color and flux were in the zenith or  
 stars of which were very high in the 2., and  
 run was very high in the ESE and Orion and the  
 has 48 lines from the market of full moon. The  
 other was that appeared about full moon was low  
 as I observed for a short while when a very bright

sky) of the moon. The time listed for the

2007

conjunction was 2h. UT on Feb. 2, about 1.25h before the beginning of the session and the distance apart was given as  $1.1^\circ$  (as viewed from the centre of the earth): also M42, M41.

5:30-5:35 a.m. E.S.T.  
M. 10:30-10:35 UT FL: in + outside baai S? T 2 (l/p; many n) <sup>clouds</sup> ne; 18X50sb  
ne: Amid many clouds, I saw Jupiter, Antares, Vega in the NE, and Arcturus near the zenith.  
18X50sb: Jupiter amid the clouds.

S.S. Mar. 3-4 23:10-03:30 UT FL: la + near condo twt + S? T 6, <sup>later cloudy</sup>  $12\frac{1}{2}^\circ, 32'$  ne; 18X50sb;

Total Lunar Eclipse

Final phases seen, but some cloud interference.

ne: Denise and I set up the telescope and prepared to watch the final phases of the Total Lunar Eclipse. The moon rose after greatest eclipse leaving less than 30 minutes to see it before the end of the Total Phase, because it was cloudy in the lower eastern sky. Finally at about 23:40 UT, I spotted the moon about  $7^\circ$  above the horizon, or about  $1\frac{1}{2}$  degrees above the roof of the condo across the pond. However, clouds prevented seeing it well. I first spotted it with binoculars, but within about a minute or less, could see it naked-eye. There were several neighbours who arrived.

18X50sb: In the binoculars, I spotted a very dark and greyish moon with some hints of pink and red and some brightness near the NE (on the sky) limb of the moon. After 23:58 UT (43), a very definite whitish strip appeared on the NE limb. That whitish strip grew as the moon moved out of the earth's umbra. As we watched from the area between our condo and the next one to the north, the number of people increased from about ten to about 20.

$12\frac{1}{2}^\circ, 32'$ : We moved to the telescope and concentrated on

Total Lunar Eclipse of 2009, Mar 3.

Coronation was 2:11 UT or Feb 28, about 1.5h before the beginning of the eclipse and the distance from the center of the moon was 0.1 (or 1/10) of the radius of the earth. Also at 2:11 UT, Mar 3, 2009, clouds were present. I saw Jupiter, Saturn, Vega in the NE, and Antares near the zenith. Jupiter and the clouds.

2:22 Mar 3-4 23:10-23:30 UT. I set up the telescope and prepared to watch the final phase of the Total Lunar Eclipse. The moon rose 15 min 30 minutes to see it before the end of the Total phase, because it was cloudy in the lower eastern sky. Finally at about 23:40 UT I spotted the moon about 7' above the horizon, at about 1/2 degree above the foot of the clouds near the pond however clouds prevented seeing it well. I first spotted it with binoculars but it took about a minute or less to see it with the telescope. There were several faint stars around.

18:50 UT: In the binoculars I spotted a very faint and greenish star with some hint of red and blue and some brightness near the NE (or the star) limb of the moon. After 23:28 UT (U.T.) a very definite white star appeared on the NE limb. That white star grew as the moon moved out of the earth's umbra. As we watched from the area between our clouds and the rest of the night, the number of people increased from about 20 to about 50. We used the telescope and binoculars on

1907

Coronation was 2:11 UT or Feb 28, about 1.5h before the beginning of the eclipse and the distance from the center of the moon was 0.1 (or 1/10) of the radius of the earth. Also at 2:11 UT, Mar 3, 2009, clouds were present. I saw Jupiter, Saturn, Vega in the NE, and Antares near the zenith. Jupiter and the clouds.

2:22 Mar 3-4 23:10-23:30 UT. I set up the telescope and prepared to watch the final phase of the Total Lunar Eclipse. The moon rose 15 min 30 minutes to see it before the end of the Total phase, because it was cloudy in the lower eastern sky. Finally at about 23:40 UT I spotted the moon about 7' above the horizon, at about 1/2 degree above the foot of the clouds near the pond however clouds prevented seeing it well. I first spotted it with binoculars but it took about a minute or less to see it with the telescope. There were several faint stars around.

18:50 UT: In the binoculars I spotted a very faint and greenish star with some hint of red and blue and some brightness near the NE (or the star) limb of the moon. After 23:28 UT (U.T.) a very definite white star appeared on the NE limb. That white star grew as the moon moved out of the earth's umbra. As we watched from the area between our clouds and the rest of the night, the number of people increased from about 20 to about 50. We used the telescope and binoculars on

Saturn and Titan, since the moon was still not above the garage as seen from the front yard and the driveway. For a while we viewed from the yard and then from the driveway. Since it was 7 days since we had viewed Saturn, Titan appeared on the other side of the planet from where it was a week ago. This time Titan appeared on the E side of Saturn, or "on the right side" as viewed in the telescope. There were probably about 20 people who looked at Saturn and Titan. Later we looked at the moon as it was moving out of the umbra. I also showed some people the Orion Nebula, M42, including the Trapezium. Later the clouds moved in and the sky became almost completely overcast.

Although clouds had interfered somewhat, we were satisfied that we had seen a fairly representative part of the final phases of this Total Lunar Eclipse.

S.-M. ~~Mar. 4~~ <sup>M. 6:00-6:05 a.m. E.S.T.</sup> Mar. 4-5 11:00-11:05 UT FL: Outside lanai tw ne; 18X50 15b

ne: About  $\frac{1}{2}$  hour after the beginning of astronomical twilight I observed the E. sky seeing Jupiter and Antares to its right and down slightly and the Summer Triangle in the NE.

18X50 15b: Jupiter and some of the bright stars of Scorpius. I observed in the area of  $\epsilon$  Sco and  $\zeta$  Sco, but not having studied the star map in recent days, was not sure of having seen the nova, Nova Sco 2007.

M.-T. Mar. 5-6 02:55-03:00 UT FL: la S?T5 (1/pigul) ne

- bright stars of winter in the S, Castor and Pollux W of the zenith and Saturn about  $20^\circ$  E of the zenith, Regulus high in the E, about  $8^\circ$  E. of Saturn.



2007 T.-W. Mar. 6-7 02:00-02:05 UT FL: la SPT6 (1/p) ne

- stars of winter in the S., Pleiades in the W,  
Castor and Pollux near the zenith, Saturn and  
Regulus very high in the E.

m. 10:30-10:55 UT FL: outside lanai twl ne; 18X50ISB

ne: Early in twilight (B.A.T. having been at about 10:27 UT)

observed the E. sky seeing Jupiter very well up in  
the SE and Mars up about  $8^{\circ}$  to  $10^{\circ}$  in the E. The  
Summer Triangle was seen in the NE. and Arcturus  
SW of the zenith.

18X50ISB: Jupiter and at least 3 of its moons, Antares  
and the brighter stars of Scorpius's head, M4,  
M80, the area around where Nova Scorpii 2007 had  
been easily seen in previous weeks, but I  
was not certain of seeing it. What I thought  
was the nova proved to be a star marked on UDS A164.  
If it <sup>was</sup> seen, it must have been considerably fainter  
than I thought it was. It may have dropped in  
brightness by a great deal since I last saw it  
with certainty.

nova not  
seen with  
certainty.

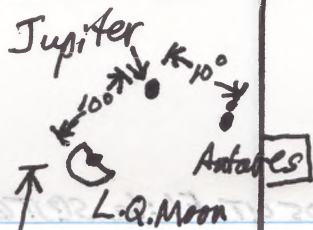
5:55-6:00 a.m. E.S.T.  
W.-Th Mar. 7-8 m. 10:55-11:00 UT FL: outside lanai twl ne; 18X50ISB

ne: Jupiter and Antares in the ESE; Summer Triangle in  
the NE; Mars about  $15^{\circ}$  above the E horizon. The  
glow of twilight was noticeable.

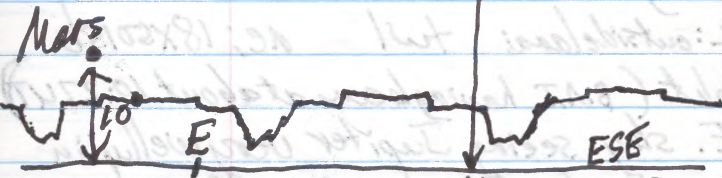
18X50ISB: Jupiter and area of Antares and the area  
of the nova's location, though the nova was  
not seen with certainty. I had read, on an  
AAUSO web site, reports of the nova having  
faded dramatically in the past week to the range  
of mag. 10 or 11. I also observed the bright  
stars of the constellation Lyra.

nova not  
seen with  
certainty.

← Summer Triangle



35°



2007, Mar. 12 10:20 UT View to ESE  
showing L.Q. Moon, Jupiter, Antares, and Mars.

seen with  
certainty.

seen with  
certainty.

6:00-6:05 a.m. E.S.T.  
2007 Th.-F. Mar. 8-9 m. 11:00-11:05 UT FL: outside lanai twl ne; 18X50ISB

ne: Jupiter and Antares well up in the SE, Vega high in the NE, Arcturus well W. of the zenith. Twilight was brightening in the E. part of the sky, and there were scattered clouds.

18X50ISB: Jupiter, Antares and some other stars of Scorpius, the area of the nova in Scorpius, but I did not see the nova which was now much fainter than it had been.

Daylight Time  
began on  
Sun. Mar. 11  
at 2:00 a.m. E.S.T.

6:20-6:30 a.m. E.D.T. L. Qul; some cloud  
S.-M. Mar. 11-12 m. 10:20-10:30 UT FL: outside lanai S?T5 (1/p; n) ne; 18X50ISB

ne: With the change yesterday to Eastern Daylight Time, I was easily able to begin observing just before the beginning of morning astronomical twilight, which was listed as beginning at 10:22 UT (5:22<sup>a.m.</sup> E.S.T.) which was now 6:22 a.m. E.D.T.. I observed in the ESE the Last Quarter Moon (about 6 hours after the precise time of Last Quarter), Jupiter, and Antares, in a triangle, Mars in the E, and the Summer Triangle in the NE. (See diagram.) Arcturus was W. of the zenith.

18X50ISB: Lunar craters on the Last Quarter Moon, Jupiter and at least one of its moons, various stars in Scorpius.

5:15-5:25 a.m. E.D.T. lanai  
M.-T. Mar. 12-13 9:15-9:25 UT FL: in/outside lanai S?T5 (Crm; 1/p) ne; 18X50ISB

ne: crescent moon, Jupiter and Antares in the ESE, Summer Triangle in the NE

18X50ISB: lunar craters, Jupiter, Antares and some stars of Scorpius.

T.-W. Mar. 13-14 02:05-02:45 UT FL: la S?T3-5 (1/p; <sup>cloud</sup> some) ne; 18X50ISB  
ne: stars of winter in the S, Castor and Pollux near the



Jupiter

000-0:00 EST  
11:00-11:25 UT  
18:20:15

MC: Jupiter and Antares well up in the SE Vega high  
in the NE. Antares well W. of the zenith.  
Twilight was brightening in the E. part of the  
sky and there were scattered clouds.

18:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

Twilight Time  
begin of  
Sunset  
18:20:15 EST

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

19:20:15: Jupiter Antares and some other  
stars of magnitude 3 or less were visible  
in some places but I did not see the  
nova. It had been seen.

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zenith; Saturn about  $15^\circ$  E. of the zenith.

18X50ISb: M41, M42, M43, areas of Orion, area of R Lep, M46, M47, NGC2244, Plaskett's Star, Christmas Tree cluster, M44, Saturn, R Leonis near max. at about

<sup>mag. 6.0.</sup>  
5:30-5:45 a.m. EDT  
M. 9:30-9:45 UT FL: in + outside lanai S?T3-5 (1/p; clouds) ne; 18X50ISb

ne: Crescent Moon seen in the E behind clouds, Jupiter in the ESE with Antares and some stars of Scorpius to its right; Summer Triangle in the NE.

18X50ISb: Jupiter and 3 of its moons, some bright stars of Scorpius, M4, M80, M8, Area of M20 and M21, bright stars of Lyra.

5:25-5:35 a.m. EDT lanai  
W.-Th. Mar. 14-15 M. 9:25-9:35 UT FL: in + outside S?T1 (1/p; cloud) ne; 18X50ISb

ne: Among the clouds, I saw Jupiter well up in the ESE, Vega in the NE, and Arcturus W. of the zenith.

18X50ISb: I tried to look at Jupiter from inside the lanai, but the results were not very good.

6:00-6:05 a.m. E.D.T.  
M. 10:00-10:05 UT FL: in + outside lanai S?T2 (1/p; cloud) ne

A bit later than the previous observation and with the sky a bit clearer, I observed the crescent moon up about  $10^\circ$  in the E., and all of the Summer Triangle in the NE and Antares to the right of Jupiter.

F.-S. Mar. 16-17 02:30-03:20 UT FL: 1a S?T3-5 (1/p; clouds) ne; 18X50ISb

ne: stars of winter in the S. and SW, Castor and Pollux about  $10^\circ$  W. of the zenith, Saturn and Regulus very high in the E.

18X50ISb: M41, M42, M43, areas of Orion, NGC2244, Plaskett's Star, Christmas Tree cluster, M35, M36, M37, M38,



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Saturn, M44 which was very near the zenith, general area of R Lep., R Leonis at about mag. 6.0 or near its maximum, M46, M47, stars in the area of the "Head of Hydra," the Hyades cluster.

S-S. Mar 17-18 02:30-03:00 UT FL: 1a S8-9 T5-6 (1/p) ne; 18x50 ISB  
ne: stars of winter in the S. and SW; Castor and Pollux about  $10^\circ$  W. of the zenith; Saturn and Regulus very high in the E.

18x50 ISB: M41, M42, M43, areas of Orion, area of R Lep., Saturn, R Leonis near maximum, at or near mag. 6.0, NGC 2244, Plaskett's Star, Christmas Tree cluster, M44, M67 and area, area of the "Head of Draco", Pleiades, Hyades, M35, M36, M37, M38.

S-M. Mar. 18-19 02:15-03:15 UT FL: 1a S8 T5-6 (1/p; slight cloud) ne; 18x50 ISB  
ne: stars of winter in S. and S.W.; Castor and Pollux about  $10^\circ$  W. of the zenith; Saturn and Regulus very high in the E.

18x50 ISB: M41, M42, M43 areas of Orion, M46, M47, M50, NGC 2244, Plaskett's Star, Christmas Tree Cluster, area of the Head of ~~Draco~~ Hydra, area of  $\alpha$  Hydrae, Saturn, R Leonis near max. at about mag. 6.0, area of R Lep, Pleiades, Hyades, M35, M36, M37, M38 Pleiades, Hyades.

<sup>6:15-6:30 a.m. E.D.T.</sup>  
- M. 10:15-10:30 UT FL: outside lanai tent ne; 18x50 ISB  
ne: I observed the E. sky right after the beginning of astronomical twilight which was scheduled to begin about 10:14 UT. I observed Jupiter up about  $40^\circ$  in the ESE and Mars up about  $12^\circ$  in the E. with Antares and the bright stars of Scorpius to the right of Jupiter

18x50 ISB: Jupiter and one or two of its Galilean



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moons, M4, M80, M8, area of M20 and M21, M22, M11 and R Scuti, the bright stars of the constellation Lyra.

M.-T. Mar. 19-20 03:55-04:15 UT FL: la S? T2-4 (1/p; cloud) ne; 18x50isb

ne: Amid clouds I saw some of the stars of winter in the SW, Sirius in the S, Saturn near the zenith, Arcturus in the NE and Spica in the E.

18x50isb: Saturn, R Leonis at or near max. at about mag. 6.0, area of the "Head of Hydra", M44, M67, NGC 2244, Plaskett's Star, the Christmas Tree Cluster.

6:30-6:35 a.m. E.D.T.  
- m. 10:30-10:35 UT FL: outside lanai twil ne; 18x50isb

ne: About a  $\frac{1}{4}$ -hour after the beginning of astronomical twilight (which began about 10:13 UT) I observed the E. sky seeing Jupiter and Antares well up in the E, the Summer Triangle in the NE, and Antares W. of the zenith.

18x50isb: Jupiter and at least one of the Galilean moons, some of the bright stars of Scorpius, M4, M80, M22, M8, area of M20 and M21, M11 and R Scuti, the bright stars of the constellation Lyra.

6:20-6:30 a.m. E.D.T.  
T.-W. Mar. 20-21 m. 10:20-10:30 UT FL: outside lanai twil ne; 18x50isb

ne: Near the beginning of astronomical twilight, which began about 10:12 UT, I observed Jupiter and Aldebaran in the ESE, the Summer Triangle well up in the NE and Arcturus W. of the zenith.

18x50isb: some of the bright stars of Scorpius, M4, M80, area of Barnard's Star in Ophiuchus, M6, M7, bright stars of the constellation Lyra.



2007 W.-Th. Mar. 21-22 00:00-02:00 UT FL: la <sup>twil +</sup> S? T4-6 (1/p; some <sup>clouds</sup>) ne

- With twilight lasting until about 00:54 UT, I observed white reading under a light on the side of the condo, seeing the stars of winter in the S. and SW. At the beginning of the session, the crescent moon and Venus were up about  $35^\circ$  in the W. with the planet down and to the left from the moon and with a separation of about  $8^\circ$ . At the end of the session the moon and Venus had set behind the roof of the condo across the street.

Th.-F. Mar. 22-23 03:15-03:35 UT FL: la S? T5 (1/p; some <sup>circus cloud</sup>) ne; 18X50sb

ne: stars of winter in the SW, Saturn near the zenith, Regulus about  $8^\circ$  E. of Saturn; the young crescent moon just disappearing over the roof of the condo across the street.

18X50sb: M41, M42, M43, some areas of Orion, M46, M47, M50, NGC 2244, Plaskett's Star, Christmas Tree cluster and Simon, area of the "Head of Hydra", area of  $\alpha$  Hydrae (Alphard), Saturn, R Leonis, near maximum at about magnitude 6.0, M44.

6:05 - 6:20 a.m. E.D.T.  
m. 10:05 - 10:20 UT FL: in + outside (anai S? T5 (1/p; slight <sup>cloud</sup>) ne; 18X50sb

ne: Jupiter up about  $45^\circ$  in the ESE with Antares about  $10^\circ$  from it, Mars up about  $10^\circ$  in the E, Summer Triangle in the NE, Arcturus W. of the zenith.

18X50sb: Jupiter and at least 2 Galilean moons, some stars of Scorpius, M4, M80, M4 and R Scuti, Mars, bright stars of the constellation Lyra. (Astronomical Twilight began about 10:10 UT.)





2007 S-M. Mar. 25-26 02:00-02:40 UT FL: la S: T45 (1/2; <sup>some</sup> ~~circled~~ faint) ne; 18x50LSb.

ne: stars of winter in the S. and SW, First Quarter Moon about  $25^\circ$  W. of the zenith in the constellation Gemini and about  $12^\circ$  from Castor and Pollux, Saturn E. of the zenith and Jupiter about  $8^\circ$  E. of Saturn

At about 02:25 UT I observed for about 40 to 60 seconds an object moving westward. It was about mag. 3 and about 2 to 3 degrees long on its N  $\rightarrow$  S axis. It seemed to have a number of bright parts to it. 18x50LSb: M41, M42, M46, M47, M50, areas of Orion, NGC 2244, Plaskett's Star, Christmas Tree cluster, Pleiades, Hyades, M44, Saturn, R Leonis - bright and perhaps at about mag. 6.0.

In the binoculars, the object seen at about 02:25 UT appeared to have 8 distinct parts, all of which moved at the same speed and they appeared to be "tumbling" or "turning". I do not know if they were connected, or if it was an experimental kite or some kind of experimental aircraft. (See diagram.) When first noticed it was perhaps about  $70^\circ$  above the SE horizon. It appeared to move westward and toward the western horizon.

moving objects of uncertain nature

M.-T. Mar. 26-27 M. 6:20-6:25 a.m. E.D.T. 10:20-10:25 UT FL: outside twai twl ne; 18x50LSb

ne: After the beginning of astronomical twilight which started at about 10:05 UT, I observed under fairly poor conditions because of light pollution and probably some cirrus cloud making the sky appear quite hazy. I could see Jupiter and Antares in the SE, the Summer Triangle of stars in the NE and Arcturus W. of the zenith.

18x50LSb: Jupiter, some of the stars of Scorpius, the bright stars of the constellation Lyra.

18:20:00

AC: stars of winter in the 2. and 3. First Quarter  
Moon about 25° W. of the zenith in the constellation  
Gemini and about 12° from Castor and Pollux Saturn  
E. of the zenith and Jupiter about 8° E. of  
Saturn.

At about 02:25 UT I observed for about 40 to 60  
seconds an object moving westward. It was about  
mag. 3 and about 2 to 3 hours long. It was  
I found to have a number of bright spots but

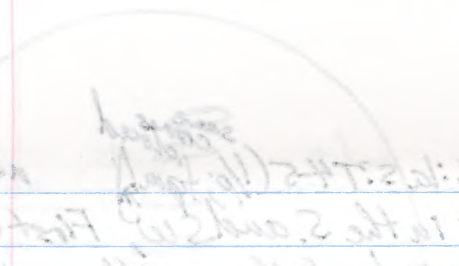
18:20:00: M1, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, M689, M690, M691, M692, M693, M694, M695, M696, M697, M698, M699, M700, M701, M702, M703, M704, M705, M706, M707, M708, M709, M710, M711, M712, M713, M714, M715, M716, M717, M718, M719, M720, M721, M722, M723, M724, M725, M726, M727, M728, M729, M730, M731, M732, M733, M734, M735, M736, M737, M738, M739, M740, M741, M742, M743, M744, M745, M746, M747, M748, M749, M750, M751, M752, M753, M754, M755, M756, M757, M758, M759, M760, M761, M762, M763, M764, M765, M766, M767, M768, M769, M770, M771, M772, M773, M774, M775, M776, M777, M778, M779, M780, M781, M782, M783, M784, M785, M786, M787, M788, M789, M790, M791, M792, M793, M794, M795, M796, M797, M798, M799, M800, M801, M802, M803, M804, M805, M806, M807, M808, M809, M810, M811, M812, M813, M814, M815, M816, M817, M818, M819, M820, M821, M822, M823, M824, M825, M826, M827, M828, M829, M830, M831, M832, M833, M834, M835, M836, M837, M838, M839, M840, M841, M842, M843, M844, M845, M846, M847, M848, M849, M850, M851, M852, M853, M854, M855, M856, M857, M858, M859, M860, M861, M862, M863, M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

perhaps of about mag. 6.0.  
In the diagram, the object's great about  
02:25 UT appeared to have 8 distinct parts all  
of which moved at the same speed and the appeared  
to be "tumbling" or "tumbling" or "tumbling". I do not know if  
they were connected, or if it was an experimental  
kite or some kind of experimental aircraft. (See  
diagram.) When first noticed it was between about 70°  
above the SF horizon. It appeared to move westward  
and toward the western horizon.

moving of  
object  
westward  
toward

18:20:00

AC: After the beginning of astronomical twilight which  
started at about 10:02 UT, I observed under  
fairly poor conditions because of light pollution  
and probably some cirrus cloud making tasks  
appear quite easy. I could see Jupiter and  
Antares in the SF the summer triangle of stars  
in the NE and Antares W. of the zenith.  
18:20:00: Jupiter, some of the stars of Scorpio, the  
brightest of the constellation were



2007 T-W. Mar. 27-28 m. 6:00-6:10 a.m. E.D.T. 18:00-18:10 UT FL: outside lanai S:T 4 (p; n) <sup>(cloud)</sup> ne; 18X50sb

ne: At the beginning of astronomical twilight which was at about 10:04 UT, I observed with somewhat cloudy conditions in the SE. I saw the Summer Triangle in the NE and Jupiter and Antares in the SE.

18X50sb: Jupiter and 3 of its Galilean moons, M4 and M80, the bright stars in the constellation Lyra.

W-Th. Mar. 28-29 m. 5:50-6:05 a.m. E.D.T. 9:50-10:05 UT FL: in + outside lanai S:T 5 (l/p; n) <sup>small amount of cloud</sup> ne; 18X50sb

ne: I observed at about the beginning of astronomical twilight which was at about 10:03 UT, seeing Jupiter and Antares to its right along with some of the stars of Scorpius in the SE, the Summer Triangle in the NE along with some of the stars of Cygnus, Arcturus W. of the zenith.

18X50sb: Jupiter and 3 of its Galilean moons, M4, M80, Mars, M22, M8, area of M20 and M21, M11 and R Senti, M16, M17, M18, bright stars of the constellation Lyra.

Th-F. Mar. 29-30 m. 5:40-5:50 a.m. E.D.T. 9:40-9:50 UT FL: in + outside lanai S:T 1 (l/p; n) <sup>clouds</sup> ne; 18X50sb

ne: Before the beginning of astronomical twilight which was about at 10:02 UT, I observed under ~~under~~ extensive cloud, with only a few astronomical objects to be seen. I saw Jupiter and clouds in the SE and Vega very high in the NE.

18X50sb: Jupiter and at least 3 of the Galilean moons, some of the bright stars of the constellation Lyra very high in the NE, Mars about 10° above the E. horizon.



2007 F.-S. Mar. 30-31 00:40-02:00 UT FL: la S? T 4 L (p; gml; n) <sup>some clouds</sup> ne

- While I was sitting outside reading I saw the stars of winter in the south and Venus very bright in the W above the condo across the road. The gibbous moon was very high in the E.

M. 10:25-10:35 UT FL: outside lanai twl ne; 18X50ISB

ne: With morning twilight easily visible, I observed Jupiter and Antares in the SE and the Summer Triangle in the NE.

18X50ISB: Jupiter, M4, M80, some of the bright stars of the constellation Lyra, the area of the star  $\alpha$  Capricorni, Mars.

M.-T. Apr. 2-3 6:05-6:10 a.m. E.D.T. 10:05-10:10 UT FL: outside lanai twl ne

Shortly after the beginning of astronomical twilight I observed Jupiter very bright high in the SE and Antares to its right. Arcturus was well W. of the zenith. The Summer Triangle was very high in the NE.

T.-W. Apr. 3-4 6:30-6:35 a.m. E.D.T. 10:30-10:35 UT FL: outside lanai twl ne

During twilight I could still see Jupiter in the SE, and down somewhat and to its right Antares, and the Summer Triangle very high in the NE, and Arcturus W. of the zenith.

W.-Th. Apr. 4-5 5:55-6:00 a.m. E.D.T. 9:55-10:00 UT FL: outside lanai twl ne

- Right at the beginning of astronomical twilight (which was to have begun at about 9:55 UT) I observed under fairly dense clouds, seeing only Jupiter amid the many clouds.

F.-S. Apr. 6-7 01:00-02:00 UT FL: la S 8-9 T 5-5.5 (l/p; slight <sup>cirrus</sup>) ne; 18X50ISB

ne: stars of winter in the S; Venus at the beginning of

2007

F-2 Mar 30-31 00:40-02:00 UT

somebody

While I was sitting outside looking I saw the stars of winter in the south and then very bright in the NE above the cord across the road. The ribbon moon was very high in the E.

M. 10:28-10:32 UT outside lawn tul ne; observed ne: with warm twilight easily visible I observed Jupiter and Antares in the SE and the Summer Triangle in the NE.

Observed: Jupiter, Antares, some of the brighter stars of the constellation Leo, the area of the star of Capricorn, Mars.

Observed: Jupiter, Antares, some of the brighter stars of the constellation Leo, the area of the star of Capricorn, Mars.

M-F Apr 2-3 10:00-10:10 UT outside lawn tul

Shortly after the beginning of astronomical twilight I observed Jupiter very bright high in the SE and Antares to its right. Antares was well W. of the zenith. The Summer Triangle was very high in the NE.

Shortly after the beginning of astronomical twilight I observed Jupiter very bright high in the SE and Antares to its right. Antares was well W. of the zenith. The Summer Triangle was very high in the NE.

T-W Apr 3-4 10:30-10:32 UT outside lawn tul

During twilight I could still see Jupiter in the SE and also Antares and the Summer Triangle very high in the NE and Antares W. of the zenith.

During twilight I could still see Jupiter in the SE and also Antares and the Summer Triangle very high in the NE and Antares W. of the zenith.

W-Th Apr 4-5 9:30-10:00 UT outside lawn tul

Right at the beginning of astronomical twilight (which was to be observed at about 9:25 UT) I observed near fairly dense clouds, seemingly Jupiter and the many clouds.

Right at the beginning of astronomical twilight (which was to be observed at about 9:25 UT) I observed near fairly dense clouds, seemingly Jupiter and the many clouds.

F-2 Apr 7 01:00-02:00 UT

ne: stars of winter in the SE; Venus of the beginning of

ne: stars of winter in the SE; Venus of the beginning of

2007

the session above the roof of the condo to the W.

18X501sb: M42, areas of Orion, including areas near CK Orionis, R Lep clearly seen (and probably the first in a fairly long time) at about mag. 7.5; NGC 2244, Plaskett's Star, Christmas Tree Cluster and S Mon, Pleiades, Hyades, M35, M36, M37, M38, Saturn, M44, R Leonis at perhaps mag. 6.5; M46, M47, M50, M41, area of the "Head of the Hydra."

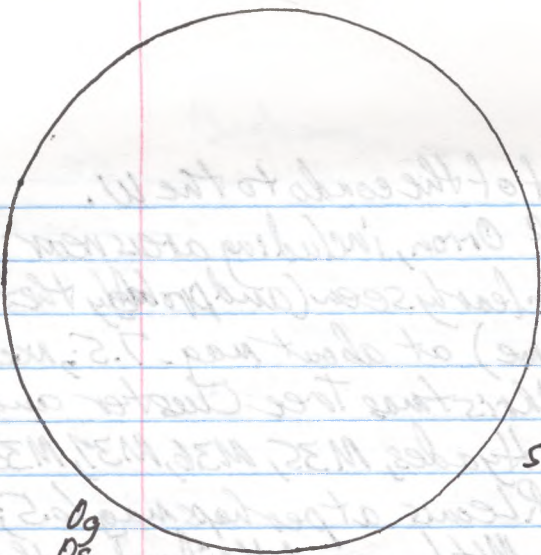
S.-S. Apr. 7-8 02:10-02:35 UT FL:  $\lambda$  5 T5 (1/p; slight <sup>circus</sup>) ne; 18X501sb  
ne: Stars of winter in the SW; Saturn near zenith.  
18X501sb: Saturn, M44, R Leonis - bright, at about mag. 6.5; M42, areas in Orion, NGC 2244, Plaskett's Star, Christmas Tree Cluster, and S Mon, M41, M46, M47, M50, area of the "Head of Hydra," area of the star Alpheratz ( $\alpha$  Hydrae).

S.-M. Apr. 8-9 02:50-03:05 UT FL:  $\lambda$  2 S? T5 (1/p; slight <sup>circus</sup>) ne; 18X501sb  
ne: Stars of Winter in the SW; Saturn near the zenith.  
18X501sb: Saturn, M44, R Leonis - bright at about mag. 6.5, NGC 2244, Plaskett's Star, Christmas Tree Cluster, M46, M47, area of "Head of Hydra," area of Alpheratz ( $\alpha$  Hydrae).

6:25-6:30 AM E.D.T.  
M. 10:25-10:30 UT FL: outside lanai twl ne

Well into twilight which began about 9:50 UT, I observed the approximately Last Quarter Moon about  $40^\circ$  above the SE and Jupiter about  $15^\circ$  slightly above and to the right from the Moon. The Summer Triangle was very high in the NE, with Vega, in fact, N. of the zenith. Arcturus was well W. of the zenith.

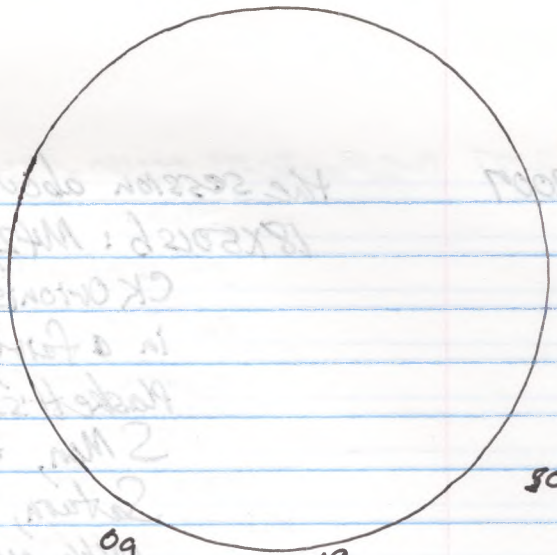




09  
05  
RSNO

Apr. 18  
17:40-17:45 UT

sc



09  
05  
RSNO

Apr. 19  
17:10-17:15 UT

sc

2007 W. Apr. 18 17:40-17:45 UT  $\pm$   
sun Og Os RSNO

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

W. Apr. 18 17:45-17:50 UT nd

PST; 20, 28, 20E, 15.5

sun in H $\alpha$  - no obvious prominences seen

W.-Th. Apr. 18-19 02:10-03:15 UT yS5T9.5!

ne; 18X5018b

ne: After being home almost a week, I finally had a clear night, and the transparency was excellent! I was almost shocked at the darkness of the sky as compared with the light polluted skies I had seen in Florida. I observed the stars of spring and Saturn very high in the W. and Venus low in the WNW.

18X5018b: Saturn, M44, R Cor Bor, T Cor Bor seen with some difficulty, M13, M92, M65, M66, M35 and nearby NGC 2158, M36, M37, M38, Keable's Cascade, various areas in the constellation Cassiopeia in the N, R Leonis at perhaps mag. 6.5.

Th. Apr. 19 17:05-17:10 UT  $\pm$   
sun Og Os RSNO

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

Th. Apr. 19 17:10-17:15 UT nd

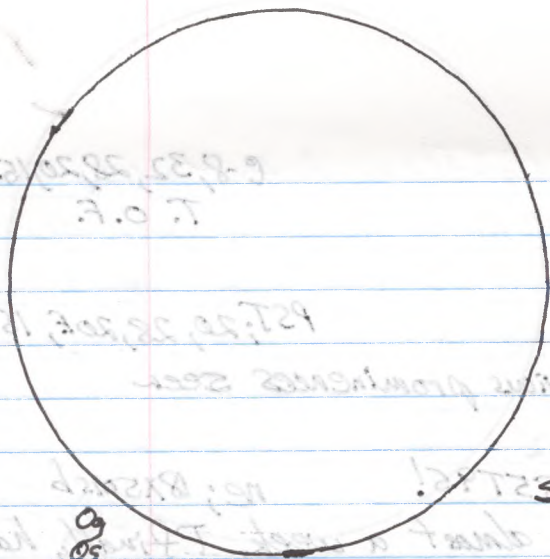
PST; 20, 28, 20E, 15.5

sun in H $\alpha$  - no obvious prominences seen

Th.-Fr. Apr. 19-20 02:45-05:20 UT 00 S7T9 (very good)

ne; 18X5018b; C-14, 32

ne: stars of spring; crescent moon and Venus about 10° to its upper left in the NW in the early part of the session; Saturn very high in the W in the early part of the session and lower later; Jupiter in the SE in the latter part of the session.



6-9-35 23:20:12  
T.O.F.

17:57:20 23:20:12  
Sun in H<sub>2</sub> - no obvious prominences seen

9  
05  
RSNO

Apr. 20  
17:10-17:15 UT

sun of 02 RSNO

17:48-17:50 UT

sun in H<sub>2</sub> - no obvious prominences seen

17:03-17:05 UT

SC.

After being

clearly, and the

I was almost shocked at the darkness of the sky as compared with the light colored stars and seen in Florida. I observed the stars of spring and Saturn very high in the W. and Venus low in the WNW.

18:50:00: Saturn, M4, R Coronae, T Coronae with some difficulty M13, M2, M12, M15 and many M3, M37, M38, M39, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, M689, M690, M691, M692, M693, M694, M695, M696, M697, 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M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

6-9-35 23:20:12  
T.O.F.

17:57:20 23:20:12  
Sun in H<sub>2</sub> - no obvious prominences seen

17:03-17:05 UT  
After being clearly, and the

sun of 02 RSNO

17:00-17:02 UT

sun in H<sub>2</sub> - no obvious prominences seen

17:00-17:02 UT

sun in H<sub>2</sub> - no obvious prominences seen

17:00-17:02 UT

sun in H<sub>2</sub> - no obvious prominences seen

17:00-17:02 UT

sun in H<sub>2</sub> - no obvious prominences seen

2007

18X5015b: Saturn, M65 and M66, R Leonis - at about mag. 6.5, M44.

C-14, 32:  $\alpha$  CVn (Cor Caroli); Saturn and Titan and two other moons; the area SW of Regulus while searching for Levy 133 (NGC 3090)

F. Apr. 20 17:10-17:15 UT  $\pm$   
Sun O<sub>g</sub> O<sub>s</sub> RSNO

C-8, 32, 2820, 15.5  
T. O.F.

F. Apr. 20 17:15-17:20 UT  $\oplus$  and

Sun in H $\alpha$  - no obvious prominences.

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

Sa. Apr. 21 19:00-19:05 UT <sup>(?)</sup> in Kingston Isabel Turner Library  $\wedge$  5" reflector Hank Bartlett's <sup>(?)</sup>  
Sun O<sub>g</sub> O<sub>s</sub> RSNO

Sa. Apr. 21 19:10-19:15 UT (?) <sup>in Kingston</sup> Isabel Turner Library  $\wedge$  PST, 15.5

Sun in H $\alpha$  - no obvious prominences seen, though I thought I had seen hints of prominences near the S. part of the limb in the earlier part of the observing session which lasted from 16:00 UT to 22:00 UT (12:00 noon to 5:00 p.m. E. Dst.)

While observing through the Coronado SolarMax During Astronomy Day Activities in Kingston, at Isabel Turner Library, I observed the sun with several telescopes; at least one reflector, possibly Hank Bartlett's 5" reflector (See above), and another possibly - possibly owned by Norm Wolbank. As for H $\alpha$ , besides my own PST, I observed the sun in the Queen's Coronado SolarMax 90 and saw a curling prominence near the 3 o'clock position.

1825016: Saturn

Wed. 4.2. M.H.

C44, 35: or 35 (Car Creek); Saturn and Titan

and two other moons; the new Swift  
Regular while searching for Jovian 133  
(Ch. 3070)

Mrs and Mr. R. Lewis - at about

1825016: Saturn

and two other moons; the new Swift  
Regular while searching for Jovian 133  
(Ch. 3070)

F. Apr. 20 17:10-17:15 UT

sun of 2 RMO

1825016: Saturn

1825016: Saturn

F. Apr. 20 17:15-17:20 UT

sun in the no obvious prominence

1825016: Saturn

Sa. Apr. 21 19:00-19:05 UT

sun of 2 RMO

1825016: Saturn

Sa. Apr. 21 19:10-19:15 UT

sun in the no obvious prominence seen, though I  
thought I had seen. List of prominences near  
the 2 part of the limb in the earlier part of  
the observing session which lasted from 18:00  
to 20:00 (18:00-19:00 UT)

1825016: Saturn

While observing through the Coronado SolarScope  
during Astronomy Day activities in Kingston, of Isobell  
Tucker Library, I observed the sun with several  
prominences; at least one rather good, possibly that  
of Isobell's 6" reflector (see above) and another  
possibly - possibly caused by Isobell's 6" reflector. As for  
the 1825016, I observed the sun  
in the Queen's Coronado SolarScope 18:00 and saw  
a curling prominence near the 3 o'clock position.

While observing through the Coronado SolarScope  
during Astronomy Day activities in Kingston, of Isobell  
Tucker Library, I observed the sun with several  
prominences; at least one rather good, possibly that  
of Isobell's 6" reflector (see above) and another  
possibly - possibly caused by Isobell's 6" reflector. As for  
the 1825016, I observed the sun  
in the Queen's Coronado SolarScope 18:00 and saw  
a curling prominence near the 3 o'clock position.

# Relative Sunspot Numbers

Date: My  
2006 Observation

2480  
Oct. 30 0  
Nov. 1 26  
3 50  
6 32  
10. 15  
22 0  
23 0  
24 0  
Dec. 2 36  
5 46  
8 16  
9 16  
10 18  
2007 Apr 18 0  
19 0  
20 0  
21 0  
24 0

Relative Concept Numbers

Date: My  
Space Operator

Oct 30

Nov 1

3

10

100

1000

10000

100000

1000000

10000000

100000000

1000000000

10000000000

100000000000

1000000000000

10000000000000

100000000000000

5180

Dec.

3000

10

100

1000

10000

100000

