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LOG NINE

LESLIE C. PELTIER OBSERVATORY  
RECORDS

VOL. NINE

No. 9  
01020160



DOMINION BLANK BOOK CO. LIMITED  
SAVOY ET SES FILS

11th CANADA



- 3698S. 1978 September 25/1615- 12-F/LCP-19I-G/  
Echo-II/-/SS-II.
- 3699EP2 1950-2000/7-F/LCP-19I-G/Echo-II-  
Ranger inauguration/-/Street light. Mizar & Alcor.
- 3700EM3 2300-0125/9½-10-F/LCP-19I-G/Pegasus,  
Echo-II-Ranger/-/VSO-I, CN-5. Nova Cyg '75 at  
14.6'
- 3701S. 26/1730-1745/8-F/LCP-19I-G/Echo II/-/SS2.
- 3702E2 1930-1950/7-F/LCP-19I-G/Apollo/-/  
Venus as a crescent.
- 3703E3 2035-2055/3-F-A/LCP-19I-G/Apollo/-/  
CN-5 VSO-I.
- 3704E 28/1950-2135/10-F-A/Jarnac Observatory-B/  
Mira Ceti III/Richard/ CN-III. VSO-I.
- \*3705EM2 2320-0415/10-F-A/Jarnac-B(D)/Spica-  
Echo, Mira/Richard. CN-V. VSO-I. Photos of M-2  
and M31. Magnificent aurora.
- 3706S. 29/1530-1600/7-F/Jarnac-B/-/View of  
Prominences.



3707S. 30/0030-0050/3-F/LCP-J-B/Mira/Richard/SS2.

OCTOBER

3708M 1/0040-0130/10-F/LCP-19I-G/Mira/-/VSO-I,  
CN-II, CN-3

3709M. 2/0130-0215/9-F/LCP-19I-G/Mira/-/  
CN-5, VSO-I, CN-3.

3710M. 3/0130-0215/<sup>3-2-F</sup>9-F/LCP-19I-G/Mira/-/  
EN VSO-I.

3711E. 4/2000-2050/8-9½-F/LCP-19I-G/  
Apollo/-/CN3.

3712EM2. 2330-0130/8-1-F/LCP-19I-G/Cosmos/-/CN-XI.

\*3713E. 8/2025-0200/7-F(moon) then 9, 10½, -10-F-  
Att - Cold/Jermac Obs/Spica-Echo/-/VSO-I, CN-5, CN-XI  
XI. Seedraft.

3714EM. 11/2350-0030/7-F/LCP-818-LW/Mira/-/CN5, VSO-1.

3715E. 12/2045-2115/6-F/LCP-818-LW/Mira/Wendy, Robby,  
Alison/Moon.  $\beta$  Cyg.

3716EM2 12/2355-0015/5-F(moon)/LCP-818-LW/  
Mira/CN5, VSO-I.



- \*3717M. 14/0000-0135/2-1-f/LCP-19I-G/the three newly purchased antique refractors, including Dr. Henry Paul's 3" refractor by Alvan Clark/-/test on Moon + Vega.
- 3718S. 15/1515-1630/3-f/LCP-19I-G/Clark/-/SS2
- 3719E2. 2140-2005/2-7-3-f/LCP-19I-G/Clark/, black refr./-/Mizar. M13. VSO-I.
- \*3720E3. 2210-2345/7-f-A+/LCP-19I-G/Rigel (the Clark), Betelgeuse, Bellatrix/-/Inaugural. Albero. Altair.  $\Sigma$  2816 Cep. CNS. VSO-I. See draft.
- 3721S 16/1620-1705/8-f/LCP-19I-G/Mira/-/SS2.
- 3722E2. H/ 2305-2350/7-f (moon) /LCP-19I-G/Rigel/-/Altair, Deneb \$M2. CN-5. VSO-I.
- 3723S 17/1605-1630/3-f/LCP-19I-G/Mira/-/SS-2. Incredible sunspot activity.
- 3724BE2 2110-2150/7-f (moon) /LCP-19I-G/Apollo/-/VSO-I.
- 3725M3 010-0125/ light cl-f/LCP-19I-G/Apollo/-/Moon. See draft.



\*3726E 20/2025-0300/10+-F-A+/Jarnac Observatory-  
B/Spica-Echo, Bellatrix, Rigel/Carl, Ross/CN-VI.  
VSO-I. CN-V. See draft.

3727S. 21/1425-1440/3-F/J-B/Echo/Ross, Carl/SS-2.

3728EP2. 2005-2015/2-F/J-B,D/Spica<sup>Echo</sup>/Ross/Vega with  
Echo.

\*3729EM3 2100-0155/2-9<sup>1</sup>/<sub>2</sub>-9-7-1-7-F-A/Jarnac/  
Spica-Echo, Bellatrix, Rigel/Carl, Francine,  
Ross/Jupiter in M44 field. M2, D b cl. CNVI. CNXI.  
VSO-I. See draft.

3730S. 23/1610-1630/3-F/LCP-19I-G/~~Beta~~ Mira/  
-/SS-2.

3731EM2 1930-0030/9<sup>1</sup>/<sub>2</sub>-F-A/LCP-19I-G(D)/Spica-  
Echo-Polaris I, Bellatrix/-/CN-5. VSO-I. CN-3.

3732E. 27/2230-2315/7-F/Harvard College Obs/  
9-inch Clark, 15" refr/AAVSO/CN5, VSO-I.

3733E 28/2300-2330/7-F/Harvard Science  
Center/10 inch refr, Bellatrix/VSO-I.

3734S. 29/2000-2020/3-F-A/75 Summer, Auburn/  
Bellatrix/David + Guinness Roy/test



- 37435E2. 2000-2020/3-f-1/ 75 Summer /  
Bellatrix / David + Ginny / Vega, etc. VSO-I.
- 3736EM. 30/ 1700-0400 intermittent / see draft.
- 3737M2. 0430-0610/ 9-f-A+ / LCP-19I-G /  
Rigel / - / VSO-I. 78 obs. in honor of conven-  
tion.
- 3738EM 31/ 2330-0150 / 10-f-A+ / LCP-19I-G /  
Pegasus / - / CN 5, VSO-I.
- NOVEMBER
- 3739M 1 / 0100-0155 / 10-9-f-A+ / LCP-19I-G /  
Pegasus / - / M1. VSO-I.
- 3740E. 2 / 1730-1910 / 9-f-A / LCP-19I + park /  
Hercules, Little Joe. / CN-~~VI~~, CN-III, VSO-I.
- 3741E2. 2 / 2200-0900 / 7-f / Deneb / 15-inch  
Cass + others, see draft / others from RASC /  
VSO-I.
- 3742EM. 3 / 2355-0105 / 7-f-A+ / LCP-818-C /  
Mira / - / CN-5, VSO-I.
- 3743M 5 / 0045-0110 / 2-3-f / LCP-19I-G /  
Echo-II / - / VSO-I.



- 3744EP 6/2300-2310/LCP-19I-inside, window/  
- Discoverer, test.
- 3745S 7/14<sup>4</sup>50-1505/LCP-19I-G/3-F/Mira 1-SS-2.
- 3746M 0000-0215/10-f-A+/LCP-19I-G/  
Pegasus, Spica-Echo/-/Jupiter. M31, 44, 81, 82.  
CN III. VSO-I.
- \*3747M3 0445-0605/9 10-f-A+/Fairfield Park/  
Little Joe/-/CN-3, VSO-I.
- \*3748E. 9/ 2030-2315/3-1-F/LCP-19I-G/  
Rigel, Spica-Echo/~15 people from RASC/  
Moon - Capella, Db Cl.
- \*3749M2 0130-0410/8 1/2-3-f-A+/LCP-19I-G/  
Discoverer, Betelgeuse, Apollo/VSO-I. TTauri  
in extremely rapid flicker.
- 3750M. 0100-0115/LCP-19I-G/Discoverer/-/  
moon through clouds. CN5.
- 3751S. 12/1525-1615/3-f/LCP-19I-G+inside/  
Test w. Rigel + 26.6 orthoscopic/-/SS-2.
- 3752E2. 2145-2200/3-6-f/LCP-19I-G+uch/  
Discoverer/-/Moon.



- 3753M3 0140-0200 / 2-f / LCP-19I-G / Discoverer,  
Echo-II / - / moon. These instruments work  
quite well!
- 375<sup>4</sup><sub>5</sub>S. 16 / 1505-1520 / 7-f / LCP-19I-G / Mira / - / SS-2
- 3755E2. 2130-2315 / 7-f (moon) / Queen's / 15" Cass  
etc. / RASC / Moon, Jupiter, M42, 45. VSO-I.
- (3756M3) 0110-0210 / 7-f (moon) / LCP-19I-G / Apollo /  
- / VSO-I.
- 3756bP 18 / 1800-1810 AM / Queens / 3-f / - / - / general.
- 3757M. 18 / 0135-0240 / 2-7-3-f-A / LCP-19I-G / Albireo,  
Rigel, Apollo / see draft.
- 3758S. 19 / 1440-1505 / 8-f / LCP-19I-G / Mira / - / SS-2.
- 3759E2 1800-1935 / 3-f-A / Fairfield Park, then  
LCP-19I-G / Little Joe. Inauguration  
of Alouette II on Vega. / - / VSO-I, CN-III,  
CN-I, CN-II.
- 3760E 20 / 1805-1915 / 9-f-A / LCP-19I-G / Spica-  
Echo, Alouette II / - / CN-5, VSO-I.
- 3761E2. 2050-2130 / 7-6-f-A / LCP-19I-G /  
Spica-Echo / - / CN-3, VSO-I.



3762EP 21/2340-2350/6 f/ man Douglas Lib/  
-1-1 VSO-I.

3763M2 0115-0200/6 f/LCP-19I-G/ Discoverer/  
-1/ least 1/4 moon, 24, VSO-I, 16.

3764S. 25/1430-1500/6 f 3-f/Mira/ Carl +  
Peggy/LCP-19I-G/ SS-2.

\*3765M2 25/0125-0330/10 (lights) -f/LCP-19I-G/  
Cosmos/ Carl/ CN-XI, M42, D6 U.

3766S. 28/1430-1510/LCP-19I-G/Mira/-/  
SS-2.

3767E2 1800-1815/<sup>p-34</sup>LCP-19I-G/ Pegasus/-/ VSO-I

3768E 30/1750-1830/8 1/2 f-A/LCP-19I-G/  
Pegasus/-/ CN3, VSO-I.

3769EM2 30/0025-0245/10-1-f-A-/LCP-19I-G/  
Pegasus, Cosmos/-/ VSO-I. CNXI.

DECEMBER

3770S. 2/1740-1845/6-f-A/LCP-818-LW/  
Mira Ceti III/ CN-3.

3771M2. 0145-0245/6-f-A/ LCP-818-LW/Mira III/-/  
CN-D, VSO-I.



- 3772S. 65/1500-1520/2-F/LCP-19I-G/Mira  
Ceti II /-1 Sun through haze.
- 3773 EP2. 1720-1725/3-6-F/LCP-19I-G/-1/gal.
- \*3774E. 9/2330-2315/3-1-F-AT/New observing  
costume. Mira Ceti II + III / VSO-I. Moon.
- 3775M2. 0210-0300/7-3-F/LCP-19I-G/  
Mira Ceti II + III /-1/ VSO-I. CNV.
- 3776S. Dec 10/1500-1430-1510/7-F/LCP-19I-G/  
Mira Ceti II, Mira Ceti III /-1/SS-II. 54 spots  
arranged in 5 groups.
- 3777E 1800-1855/6-F(moon)-AT/LCP-19I-G/  
Apollo 1-1/VSO-I. W2 Sag up.
- 3778E 11/1800-1830/7-2-1-F/LCP-19I-D, G/Apo-  
1b1-1 set up, then clouding over!
- 3779M 12/13/0010-0050/1-F/LCP-19I-G/  
Echo-II, Ranger /-1/ occasional glimpses  
of Moon in both scopes + finder. Scope's  
equatorial mount followed moon well.
- 3780S. 14/1420-1500/9-F/LCP-19I-G/  
Mira Ceti III /-1/SS-2.



3780M 15/16 1978/0045-0200/4-5-F-A+/LCP-19I-G(D)/Alouette, Apollo/CNS, VSO-I:66.

3782S. 17/18/1430-1455/3-F-very cold + windy / Mira III / - / SS-2.

\*3783E2 17/18/1755-1940/4 1/2-F-A+/LCP-19I-G; earlier part at new site, called NW Amherstview by Lord Amherst (?) aptd. / Little Joe / - / VSO-I. CN-3. WZ Sge flicker.

3784E3 2045-2300/8-7-F/LCP-19I-G/Pegasus, Apollo, Mira 3, Little Joe, Rigel / 4 from Kingdon RASC / 5hp, C, M31, DBC1, Deneb, CN3. See draft.

3785M4 0045-0315/7-8-F-A-Cold/LCP-19I-G) Pegasus, Apollo, Mira 3, Little Joe, Rigel, Hercules, Olympus / Aur-I. Photos of moon - 20 with Olymp. + 12 w. Here See draft. also, VSO-I-44.

(nw comb view)  
3786E 18/19/1850-1940/10-F-very cold + windy / Little Joe policeman / CN-5. VSO-I. CN-III:30m.

3787M2 0000-0120/7-F-very cold + 90C + 90F wind / LCP-19I-G / Spica + Echo / + Dome. VSO-I.



- 3788S 19/1440-1505/7-F/LCP-19I-G/Mira 3/-/SS2.
- 3789E2 1755-1815/10-fA/~~LCP-19I~~G NW Amherst  
view/Little Joe/-/CN-3, CN-5, USO-I. Zodiacal  
light
- ~~3789E3~~ ~~0020-0115/10-fA/LCP-19I-G/Apollo/-/M42, M45.~~
- 3790M3 0050-0115/4-F/LCP-19I-G/Apollo/-/  
M42, M45.
- 3791E 21/1750-1850/10-fA/NW Amherst view/Little  
Joe/-/CN-5, CN-3, USO-I.
- 3792E2 2030-2115/3-f/Doug's place, Kingston/  
Rigel/several RASC/2, M44, Mizar, D6 C1.
- 3793E3 ~2300-2345-/3-f/Doug/Rigel/RASC/2, 3,  
Mizar, M42.
- 3794M4 21/22/0230-0320/9-3-f-A+/LCP-19I-G/Mira 3+  
Olympus/Betelgeuse/-/Moon photo. 2, 3, M42
- 3795E 23/ 1815-1845/6-3-F/LCP-818-LW(LE)/Mira 3/-/  
CN-3. Jupiter.
- 3796M2 23/24/ 0210-0310/7-f-A/LCP-818-LW-LE/  
Mira Cefi 3/-/Jupiter. CN-3.
- 3797M5P (before 3794) ~0100-~0110/9-f/Doug/-/Doug/general.



3798E 30/31/~2215-~2230/3-F/~~LCP-818~~ Sun and Surf,  
Apt. 306 / - / general / Mira-III.

3799M2 ~0100-~0115/3-F/Sun and Surf, Apt  
306 / Mira III / - / general.

December Quartet

3830E. DEC. 29/30 / 2115-2150 / Mira, Peloon /  
LCP-818-LE / 1- / CN-I, Jupiter photos.

3831E2. 2230-2350 / 7 / LCP-818-LE /  
Mira 3 / Carl / Jupiter in M44 field.

3832M3. 0000-0015 / 7-F / LCP-818-LE /  
Mira 3 / Carl / Jupiter, M44, Saturn.

3833M4. 0120-0140 / 2-F / LCP-818-(LW) / LE.  
Mira 3 / Jupiter. 2 moons very close to  
each other - closer than in other sessions.

296 sessions in 1978



LESLIE C. PELTIER 1979. OBSERVATORY.

JANUARY.

- \*3800E 4/2230-2315/3-2-F-At/ near Paula's house, in Sarasota/Mira Ceti III/Paula/Moon, through clouds. Jupiter, M42.
- 3801M 5/0045-0100/6-F/306 Sun and Surf/Mira Ceti III/-/general. VSO-I.
- 3802S. 6/1430-~1530/7-F/306/Mira Ceti III/Larry Levi's family, Lew Levi's family, our family/looking at boats + waves. Mira is very effective for that + diagonal gives effectively upright image.
- 3803S2. ~1645-~1700/7-F/306/Mira/-/same as 3802.
- 3804E3. 1930-2000/6-F-A/306/Mira Ceti III/-/general sweeping. VSO-I.
- 3805M4. ~0025-~0105/3-F-/306/Mira III/-/general.
- 3806ME 7/1855-1910/7-F/W. Palm Beach/-/Levi/general. before movie starts. Con-I.
- 3807E2 2145-2215/3-F/ven. Sun and Surf/Dr. Levi/Con-I.
- 3808S3 (before 3806E)/1700-1715/7-F/306 Sun and Surf/-/Freddie Levi/terrestrial observation/Mira 3.



3809~~4~~E~~4~~ 1110-1115/0-F/306 Sun+ Surf | - | Mira Ceti III | -.

3810 E. 9/10/2025-2200/3-F-A/Gibson Observatory/  
16-inch F/4, 6" F/10-11/ Joe Sawyer, Tony  
Ruso, ~15 others/ Jupiter, Moon.

3811 E2. 2215-2235/3-F/306 Sun and Surf/  
Mira Ceti III | 1-1.5 mag. meteor; CN-3.

3812 S. 10/ ~1000-~1015 | 3-F/306/Mira | - | terrestrial.

3813 52 ~1600-1615 ~ | 3-F/306/Mira | - | terrestrial.

3814 E3 1110-1125 pm | 3-6-F/306/Mira Ceti III | /  
Mizar, general sweep.

<sup>815</sup>  
~~3125~~ E 11/ 3 2000-2015/3-2-F/LCP-818-C/Mira Ceti III | - )  
Moon.

<sup>816</sup>  
~~3126~~ M P 14/ ~0030 - ~0035/ 7-F/LCP-19I-G | - | -/general.

3817 M 16/0015-0100 | 6-F-A/LCP-818-UE; LW(LE) |  
Alouette | - | Moon, M42.

3818 M 18/ ~0030 - ~0100 | ~6-F/LCP-818-LE |  
~Alouette? | - | general.



- \* 3819E 22/1940-2020/6-F/LCP-19I-G/Alphecca  
 inauguration / - / & Cyg : inaug. star! /  
 VSO-I.
- \* 3820EM. 23/2300-0145/3-7-10-F-A+/LCP-19I-G/  
 othero / VSO-I. / see draft.
- 3821E2 (before 3820) 2100-2115/6-F/  
 LCP-19I-G/-/ F.H.A. G in V.  
 February
- 3822S 2/1445-1505/3f/LCP-19I-G/Mira 3/-/SS-2.
- 3823E2 185-1915/9-A+/West Amh/ LJ/-/CN-3, VSO-1.
- 3824E3. 2030-2100/9-F/LCP-19I-G/Mira 3+  
 nebular filter / M31.
- 3825E4. 2145-2215/9-F/LCP-19I-G/Apollo + n.f./  
 - /M42, 45.
- 3826EM4 2345-0050/9-F/LCP-19I-G/Apollo/Carl/  
 VSO-I.
- \* 3827M5. 0300-0350/9 1/2/A LCP-19I-G/  
 inaug. of Andromeda-Ceph / Ceph, (BCass)  
 2, h.
- 3828FS. 3/1500-1530/9-F/LCP-19I-G/Mira 3/-/SS2.



3829E 3/ 2255-0020/ 3-7-A/LCP-19I-G/  
Syncom 2, Andromeda-Cyph/Earth/  
2, 7, CN-I, USO-I.

3830-33-~~see~~ after 3797.

\* 3834E 4/ 1915-2040/ 5-7-F-A/LCP-19I-G/  
Spica-Echo/ -/ Moon photos.

3835M2. 0100-0145/ 6-F/LCP-19I-G/  
SYNCOM-II/ -/ Jupiter.

3836AS. 5/ 1525-1540/ 7-F/LCP-19I-G/Mira 3/-/SS2.

3837S2. 1600-1615/ 7-F/LCP-19I (unaided) -/ Nellie Johnson/  
~~SS2~~ Sun w. #14 glass.

(3858E3.) ~2000-~2015/ 7-F/LCP-19I-G/-/-/ Albet. <sup>slump of</sup> very near moon.

3838EM2. 2345-0100/ 9-F/A+/LCP-19I-G/ Pegasus/-/  
CN-I, USO-I.

\* 3839S. 6/ 10330-1415/ 9-F/LCP-19I-G/Mira 3/-/  
SS2. Eclipse Test.

\* 3840E2 1800-1900/ 7-F/<sup>A</sup>LCP-19I-G/ Inaug. of  
NASHIRA/-/ Moon (first) Devel. CN-B.

3841E3. 2145-2245/ 7-F/LCP-19I-G/ Pegasus/-/USO-I.



- 3842M. 8/9/ 0110-0125/3-6/LCP-19I-G/ Discoverer I/  
Moon, Jupiter.
- 3843E 9/10/ 1940-2020/3-F/LCP-19I-G/Very cold/  
Discoverer I - /Moon, Jupiter/ VSO-I.
- 3844E2. 2245-2340/7-F-A/Pegasus I - /LCP-19I-G  
VSO-I.
- 3845M3 0110-0140/7-f(moon)/LCP-19I-G+ven/  
Pegasus I - / Jupiter, Moon;
- 3846S. 10/ 1530-1600/8-F/LCP-19I-G/Mira I - /SS-2.
- 3847M2 0155-0230/7-A/Nashira/Syncorn/Moon,  
Jupiter, Custer.
- 3848S. 11/ 1330-1350/8-A/LCP-19I-G/Mira 3I - /SS-2.
- 3849M2 0100-0120/7/LCP-19I-G/Nashira/Mik/  
Moon, Jupiter. Sirius.
- 3850EM 12/ 2355-0040/7-F-A- /LCP-19I-G/  
Syncorn II / - / CN-II. VSO-I.
- 3851E. 13/ 2230-2345/ -26°C. -F-A+ /LCP-19I-G/  
Pegasus, Nashira I - /CN-I. VSO-I.



- 3852S. 16/1630-1650/7-F/LCP-19I-bedroom  
window/-/Mira Ceti II/SS-II.
- 3853M2 0030-0215/7-F/LCP-19I-G/Spica-Echo/  
-1 Photos of 29 + Leo.
- 3854S. 17/1500-1530/9-F/LCP-19I-G/Mira 3/-/SS2.
- 3855S 19/1500-1530/7-F/LCP-19I-G/Mira 3/-/  
CN-SS-2.
- 3856M2. 0000-0015/2-F/LCP-19I-G/Alouette/-/  
2, stars.
- 3857E. 20/2245-2300/3-S-F/LCP-19I-G/-/-/  
CN-5.
- 3858E - see after 383752.)
- 3859E 24/2200-2300/on plane betw. Toronto +  
Winnipeg/Mira Ceti 2/Others/Spica. Am.
- 3860EM. 25/2200-0200intermittent/7-F/  
City Centre Hotel van, Winnipeg/Mike,  
Bob Tutbill/checks for weather.



February 26

③ 38615.

0925-1225/

6-A++++

LUNDAR, MANITOBA/

Mira III with OMI

inauguration of 20mm Plossl eyepiece

Mira II by projection

Hercules I

Mike + Lyte P.

Angelika K. + Bob.

others I

Total Eclipse of the sun.  
many prominences.Magnificent eclipse  
See draft for photo details

3862E.

27/4830-1845~/7-F/Toronto airport/Case-moon/  
Angelika I - <sup>good view of</sup> ~~probably~~ Mercury near moon. - very bright

3863E2.

1900-2200/9-10-F-intermittent/betw.  
Toronto + Kingston/Angelika I general.

3864M3.

~0100-~0130/9 1/2-F-A/LCP-19I-G/  
Mira Ceti II I - Jupiter, Saturn, CNI.



3865M. March 3/ ~0130-0200/ 6-f/LCP-19E-G/  
Mira 3/-/ Jupiter, Saturn, CN5.

3866M. 6/0020-0045/2-1-F/LCP-19E-G/  
Mira 3/-/ Photos of moon + Jupiter

3867S

MST

3868E. 8/2 115-2330/9-F/~~LCP-19E~~ airplane  
betw. Chicago + Tucson/-/-/meteor.  
~~CN-1~~ VSO-I.

\*3869E 9/1910 to 1930/2-f/Gerry's house, Oakwood  
Circle, Tucson / Propus-maug/-/Mercury.

3870EM2 ~~10/~~ 9/ 2230-0045/8-f(moon)/For Gerry's  
house/ Propus/Gerry, Audrey + 3 friends/  
Saturn, Jupiter, Moon, M42. VSO-I.

3871S. 10/ 1115-1135/ 7. 10-f/ Kitt Peak National  
Observatory/ Visitor's telescope/ ~~SS-2~~. Gerry/ SS2.

3872E  
3875

10/11/

3873M3 0030-0150/7-f-A+/Oakwood Circle, Tucson/  
Propus/Gerry/ Jupiter, CN-F. VSO-I.



- 3874EP 11/12 1955-2005 / 7-F / 6341E Brian Kent / - /  
Mike Schreiber / CN-5. Dome 2.5.
- 3875E2 2230-2350 / 7-F (moon) / A+ / Gerry's home /  
PROPUS / Gerry / Jupiter. VSO-I.
- 3876E. 12 / 2055-2350 / 7<sup>2</sup>-F-A+ / Gerry's house /  
PROPUS / Gerry & Audrey / R, R, C, M42, 45. VSO-I.
- 3877SP. 13 / ~~20~~ 1300-1310 / 6-F / Flandrau Planetarium /  
TV monitor / Gerry / Sunspots.
- 3878SP2 1515-1525 / 1-F / store in Tucson / new telescope /  
Gerry, + Saberman / mtn.
- 3879SP3. ~~1600-1610~~ / 1550-1600 / 1-F / Gerry's home /  
new telescope / Audrey, Gerry + friend, + Debby /  
mtn.
- \*3880E4 2300-2335 / 7-F (moon) / A+ / Gerry's home /  
EQUUS inaugural / Gerry + Audrey / Jupiter, Saturn,  
Moon as first object
- 3881M5 0045-0110 / 7-F / Gerry's home / looking at moon from window  
(from inside)
- 3882MP6 ~0530 - ~0540 / 7-F / G / + / Venus, Scorpius, Sag. <sup>very bright</sup>
- 3883SP. 14 / 1545-1555 / 7-F / Flandrau Planetarium / TV monitor / Gerry / Sun-



- 3884 E2. 2310-2325 / 7-F / Garry's place / Equus / - /  
M 42, Jupiter, Moon.
- 3885 S 18 / 1600-1615 / 7-F / LCP-19I-G / Mira 3 / - / SS2.
- 3886 E2. 18 / 1940-2045 / See draft.
- 3887 E3. 2100-2115 / See draft.
- 3888 M4. 0030-0210 / See draft.
- 3889 S 19 / 1510-1530 / 7-F / Sun. - SSII, Mira 3.
- 3890 E2 2000-2100 / See draft.
- 3891 E. 20 / 1915-2040 / See draft.
- 3892 E. 21 / 1925-2030 / 10-F-A / NW Amherst view /  
See draft.
- 3893 S. 22 / <sup>1640-1700</sup> / ~~1650~~ / See draft, SSII.
- 3894 M2 22 / 0110-0125 / See draft.
- 3895 M 23 / 0120-0140 / See draft.
- 3896 S 3 / See draft.
- 3897 EM. Aurora. See draft.



3898S. 7/ ~~1400-1430~~ / 7-F / LCP-19I-G / -M via /  
SS2.

3899EM 8/ 7/2300-0030 / 7-f (moon) - B / see draft.

3900S 8/ Sun. see draft. SS2.

3931S. See SS2.

3901E. 10/ ~~204~~ 1945-2100 / 7-F / LCP-19I-G / draft.

3901E 11/ See draft  
should be 3910.

3902EM. 12/ See draft.

3903E. 17/ 2250-2330 / 9-F-A / LCP-19I-G / movie  
camera, Apollo / G. Cecil / USO-I. Photos of Leo.

3904S. 18/ See SS2.

3905EM. 18/ see draft

3906S 19/ See draft. SS2.

3907M. 19/ 0315-0330 ~ / 5-F / LCP-19I-D-G / -1 - <sup>Nelson.</sup> / CN-I

~~3907S.~~ → 21/ See draft SS2.

3908S.

~~3908AN~~ 20/ 1950-0415 / 9-F-A++ / LCP-19I-G / several inst /  
Arthur Covington + others / see draft.

\*\*3908AN



3920S. 25/1500-1515/4-F/LCP-19I-G/Mira 3/-/SS2

3921E. 28/29/1900-1940/3-f/haer Kungsten<sup>401</sup>/-/-/Moon;  
~  $\frac{3}{4}^\circ$  from Aldebaran.

3922S. 29/1420-1435/~~2~~6-F/LCP-19I-G/Mira 3/-/SS2

3923S2. ~~1700~~1650-1835/6-F/LCP-19I-G/Mira 3/Dennis/-  
also Mira 2/Sun photography. Also photography of  
telescopes: Discoverer

Outside: {  
Mira 3  
Mira 2  
Nashira

Apollo  
Pegasus  
Betelgeuse  
Baby Joe  
Little Joe

Syncom-II  
Albireo  
Alphecca  
Beer Can  
Echo-II-Ranger  
Betelgeuse  
Rigel  
Alavette-II  
Nelson  
Boulder

Inside: {  
Spice  
Echo  
Cosmos II-III  
Procyon  
Polaris II  
Polaris I

Future: (to be taken)  
Talking Telescope  
Andromeda-Cap h  
Propus  
16-inch  
Tuth II  
Apollo

- Sundial



3924 E3. 2 120-2135 / 5-3-F / LCP-19I-G / Echo 2 / - /  
Moon, 4. CN5.

3925 M4 0145-0230 / 9-F / LCP-19I-G / Echo-2, Nelson /  
CN-5. CN-1. VSO-I. 7.

3926 S. 30/0 1400-1415 / 7-F / LCP-19I-G / Mira 3 / - / SS2.

3927 E2 2330-2345 / 8<sup>1/2</sup>-F / LCP-19I-G / Alouette / - /  
CN-II. Jupiter, Saturn. Vega.

3928 M3 0040-0120 / 9-2-F / LCP-19I-G / Pegasus / - / CN-I,  
CN-5, VSO-I.

3929 M4. 0215-0250 / 9-F / LCP-19I-G / Apollo / - /  
VSO-I. M51. Mizar

3930 S. MAY  
1/175 1755-1830 / 7-2-F / LCP-19I-G /  
Mira 3 / several children / SS2.

3931 see after 39100.

3932 M2. 1/0 120-0150 / 6-2-F-A / LCP-19I-G / Apollo / - /  
CN-5, VSO-I.

3933 S. 2/12 15-1235 / 8-F / LCP-19I-G / Mira 3 / - / SS2.

3934 E2. 2200-2230 / 3-6-F / LCP-19I-G / Pegasus /



Barbara K, David F. Sheila A. others / Moon,  
 Con-I. (no draft.)

3935M. 4/5/0115-0205/3<sup>9</sup>-F/LCP-19I-G/Betelgeuse  
 Nelson, Apollo / Mikeel / Moon, Saturn, CN-1, 5, VSO-I.

3936S. 5/6/1600-1740/8-3-F/LCP-19I-G/Discoverer  
 Mira 3 Spica<sup>\*</sup>-Echo<sup>\*</sup> Nashira Pegasus Cosmos<sup>\*</sup>  
 Apollo Bellatrix Baby Joe Little Joe Syncom I  
 Albireo Bounder Nelson Beer Can Betelgeuse  
 Alphecca Echo II Procyon<sup>\*</sup> Mira II Abutte II  
 Rigel (\* = not taken out) / Constantine & Grinette / SS II.  
 Telescope photography.

3937M2. 0340-0420/8-F-A/Fairfield Pk/  
 Little Joe / - / CN 5, ~~US~~ CN 3.

3938M. 0010-0120/6-F/LCP-19I-G/Apollo / - / CN 1, VSO

3938bE. 8/2110-2230/7-6-F/Am. NW / L J / - / CN 5, CN 3.

3939M.S. ~~0000-0100~~ # 8/ ~ 1500 / SS 2.

394039M2. 0000-0100/4-F/Pine Trees campsite,  
 Lewis, N.Y. / Little Joe / - / VSO-I.

3940S. 9/1800-1930/~~7~~-F/L. 4-F/LCP-19I-G/  
 Mira 3 / Gareth / SS-2.



3941 E2. 9/2130-2300/5F/LCP-19I-G/Cosmos II,  
Mira<sup>3</sup>, ANTARES | others from astronomy course/  
Moon, 2, 3.

3942 M. 10/0330-0345/4F/LCP-19I-G/  
Mira 3/Moon/.

3943 M. 11/0030-0115/4F/LCP-19I-G/Apollo 1-/Moon-  
Lunar crater moonrise/

3944 EM 14/2200-0030/9<sup>3</sup>/<sub>4</sub>-F/Apollo, brass/ Jarmac  
Mark + Lindy | Saturn, M51, Mizor. VSO-I.

3945 S. 15/ ~1400~1430/3-F/LCP-J-B/Apollo/  
Mark + Lindy | SS-2.

3946 M2 0015-0030/3-F/LCP-3-F, B/-/-/general.  
CN-V. some 2<sup>5</sup> pt cl

3947 ME. 16/~~2015~~ 2200 to 2300/8-9-F/LCP-19I-G/  
Pegasus | Ika, David, Greg + wife - Course  
night | SN M100 at ~11.00:.

3948 EM2. ~~~0100 to 0~~ ~0015 to ~0100/LCP-19I-G/D/  
Pegasus, Nashira, Mira, Betelgeuse, Alphecca/  
Db Cl, + SS Cyg at 11.8.

GA 79

3949E.

17/ <sup>2130 to 2230~</sup> ~~2200~~ to ~~2300~~ / D-F / outside London /  
 \* 16-inch Dall-K. / about 10-15 GA people /  
 showing SN M100, Saturn, M3, M57,  
 A\* others.

3950S.

18/ ~ 231130-1145 / 7-F / Cronyn obs / Rigel,  
 Betelgeuse / → Doug, Mike Kennedy / watching  
 upside down people through (mostly) Rigel!!

3951E2

22745 to 2330 / Cronyn Observatory's  
 10" Perkin-Elmer refractor / many others /  
 Saturn. About as good as in Cosmos.

3952 M2

20/ 21/ <sup>00</sup> ~~2330~~-0030 / London, Ont. Walker's  
 house / → 8" refl, Rigel / Peter Gedeiko, others /  
 E VSO-T, S. Nova M100: ~11.5. Earlier part:  
 U West. Ont, parking lot with Mira, Rigel, + Betelgeuse.

3952a F

21/ 2300-2320 /

3953E

JUNE

3953E

1/ 2300-~~0030~~ 0115 / 9-F / LCPJ-F, B(D) /  
 Apollo, Tacco / Angelika, Sheila Ager, Carl, Peggy /  
 general sightseeing

\* 3954EM

2/ 02330 to 0245 intermittent / → 6-F, then 3-10 /  
 Apollo, A.V. Douglas telescope first light / Carl, Angelika,  
 Sheila, Gnotantino, Ginette, others / general sightseeing



3955M.

June 3/2345-0110 / ~~286-F~~ / LCP-19E-G /

Pegasus, Nelson / - /

VSO-I:

CW-II

A R Cep 75-

Dome 3

R X Cep 74-

SS Cep 74-

VZ Cam 52-

4028, 7

VW UMa 80-

R Y UMa 76-

R C B 6.0<sup>2</sup>-

g her 57-

X he 67-

XY Lyr 64-

A F Cyg 73-

W Cyg 66-

Z Cam 11.9-

R R Cam 104-

T UMa 11.2-

S UMa 7.2-

S UMi 10.5-

R UMi 9.5-

X Cam 12.0<sup>0</sup>-

R Cam 10.3-

V Boo 8.1-

R Boo 9.3-

T AB 10.0-

R R AB 8.0-

S W AB 8.1-

C H Cyg 6.9-

M Cep 4.4-

27 var. (leach 2.22 min)

3956E 5/2115-2145/8-F/EE chez Tim Gladwin/  
 -/ 6+8" mated reflectors / Angelika, others / Tim  
 Gladwin / Jupiter, Saturn.

3957M 2 0120-0140 / 7-F / LCP-19I-G / (Syncom II)  
 - / VSO-I, CMI  
 SS Cygni 10.8 - 40-6-  
 TAB 10.0 -  
 R Cr B 6.0: -

\*3958M FRIDAY, JUNE 8 / ~0100-~0130 / 4-3-F /  
 Mik's place, Mississauga / Skylab's first  
 light / Mik / Moon. Vega as first object. (?)  
 Albireo.

3959E 9 / ~200 to ~2330 / 34-F / Angelika's  
 parents' house / others / Skylab / Moon.

\*3960M 11 / 0000-0200 / 7-F (Moon) / LCP-19I-G /  
 A. Vibert Douglas Telescope: 2nd First light  
 ceremony / Skylab's 2nd / 1st light also /  
 Moon, Ve M51, M13, M92, Mizar, Triple in Cep.  
 (seen in both.)  
 VSO-I: SS Cyg 12.1 -  
 Nova Vul 179 9.0 -  
 V Sge 11.5 - 3 var = 30.



\*3961AS.

12/1600-1700/7-F-/LCP-19I-G/~~Lit~~  
Syncom II. Mira 3. Alphecca. Betelgeuse.  
Rigel. Nashira. Inside: Skylab, Beer can,  
Tasco 77 mm, A. A. V. Douglas. /  
Two people from Whig Standard.  
Mike Lyte, Ika.  
Sun.

3962E

13/Astronomy course, No. 10/2200-2340/  
7-F/LCP-19I-G/Skylab, Pegasus, Echo-II,  
Mira 3, / David Fiske, Ika, Greg Parfit, Sheila Agan,  
Mike Lyte, + Dennis / Satellite,  $\beta$  Cyg.  
M13.

Nova Vul '79: 8.9-

TAB 10.0-

RAB : 6.0-

SS Cyg 11.8-

RS Oph 11.9- 5 var = 3.5.

\*3963E

14/2200-2300/7-F/Queen's: Ellis Hall,  
Roof / A. Vibert Telescope inauguration night /  
Leo, Mike, Dennis, Enrico, + one other.

VSO-I: TAB 10.0-

RAB 6.3: -

SS Cyg 11.8 -

3964bS? Solar session on Sunday.

2

6

6  
20  
80

\*3964EM

15/22 45 to 0130 / 4 - F / LCP-J-B /  
Apollo, Skylab, Jarnac / "First" light of new Jarnac  
telescope, a Clarkoon /  
- Possible view of a tumbling Skylab through  
Skylab /

- RSoph 11.89 -

M13

TAB 100 -

\* test of Jarnac

RGB 6.3 -

3 vac

on Antares.

3965M

16/00 15-0 1 a bit better than 10 / F-A /  
LCP-J-B / Apollo / Skylab / - / CP-II.

M13, M-11, B Cyg.

VSO-I: TAB 100 -

RSoph 11.8 -

SSCyg 12.1 -

Wffen 11.3 -

3966S.

17/

-

1 - F / J / Skylab / others /

SS-2,



3967E.

18/2150-2310/9 1/2-f/ NW Amherst view  
side / Rigel / - /

CN-3: 30 minutes!

CN-5: Dome.

3968S.

19/ 1345-1400/9-f/LCP-19E-G/Mira 3/-/



G=4

S=18

R=58

\*3969EM2

2100-0115/10-f/ near Terry's place/  
Cosmos 2+3, Quantum contest. Also:

Rigel, Altrosca, Edm. 8"/

Terry Dickinson + ~18 students/

SS Eyes 11.8 -

Nova Vul ~~8.0~~ 8.7 - 2 var

many other objects:

Db-in Leo incl. Saturn Mercury Jupiter

SKYLAB: Seen w. Rigel

CN-5  
Dome.

3970S

20/1300-1315/7-F/LCP-19I-G/Mira 3/-1



Casper Hossfeld  
20 Somerville Rd  
Ridgewood Nj  
07450

G = 4

S = 21

R = 61

\* 3971 AN2

2145-0400/9 1/2-10-F/LCP-19I-G/

AVD telescope Echo 2

Mira 3 Syncom Rigel

Mike, Dennis, Barbara

Sheila David Gha Greg 10vac

Bounded

Smoky

cn-5  
Dome

RGB 6.0 -

S Per 9.4 -

TGB 10.0 -

SS Cyg 12:15 8.7 -

12:45 8.7 -

15:00 8.7 -

RS Oph 11.8 -

Nova Vul 9.0 -

V Sae 11.9 -

Z Cam 11.8 -

" Flower near K Cas

M27

Veil

M31-2-110

Db Cl

Ms 51 13 92

Omega Lagoon



3972S. 24/1710-1725/10-F/LCPJ-F-B/Sky lab,  
Apollo / Sun with Skylab.



3

3

33

\* 3973AN2

2140-0400/10-F/LCP-~~AI-E~~ Jarmac-B-  
F-D/Skylab, Apollo, Pegasus/  
CN-3. 1 hr before dawn E. Sky, ✓

VSO-I:

RAB 6.0 -

SS Cyg 0300 8.9 -

RS Oph 1030 11.6 -

0300 11.6 -

Tu B 100 -

M17, 8, others.

3977 EP July 2/2350-0000/7-F/LCP-818-LEW-C-LE/  
-/-/ Dome 2.

3978 S. 3/1050-0330 / 9-f/Green Acres / ~~LE~~ Mira /  
~25 people + 80 people throughout the day /



6  
27  
R=87

3979 E2 2230-2305/7-F/J-818-LE(LW, C)  
Andromeda - Capl / - / M13 resolved at low power.  
# M57.

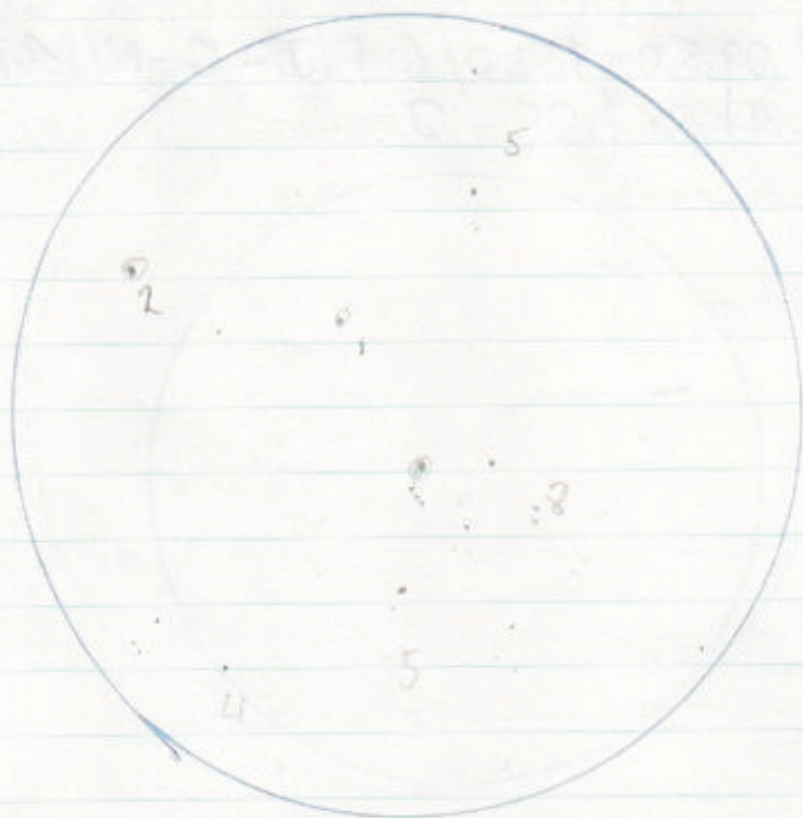
VSO I R G B 6.0 J /  
T G B 10.0 J /

3980 S 4/1000 to 0330/3-7-F/J-G-N / ~~4~~ Androm-  
eda, Mira / ~~CA~~ SS-II.



07 79

398/S.



G = 6  
 S = 25  
 R = 85

July 6/ 0945-<sup>1530</sup>03 / B-F / J-G-N / Mira /  
 SS-2.

3982 M2 July 6/ 0940-1-0100-0115- / 7-f / ~~LT~~  
 Sheila's place / - / Nelson / VSO-I:  
 RAB 6.0: ✓

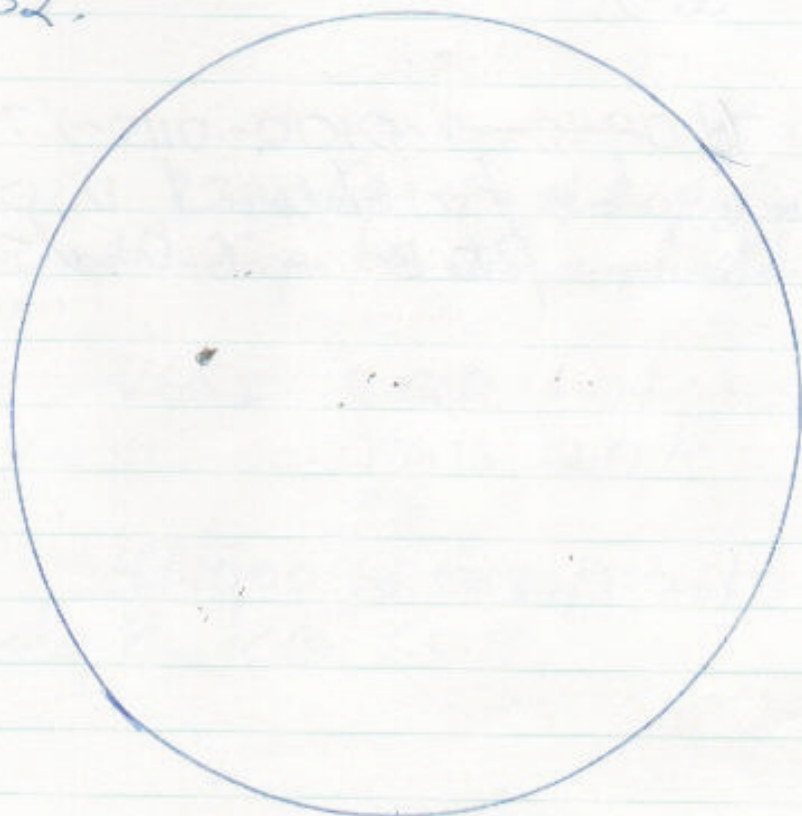
3983 S.

9/0950-1530/6-F/I-G-N/Mira 2/  
many others/SS-2.



3984<sup>4</sup> S.

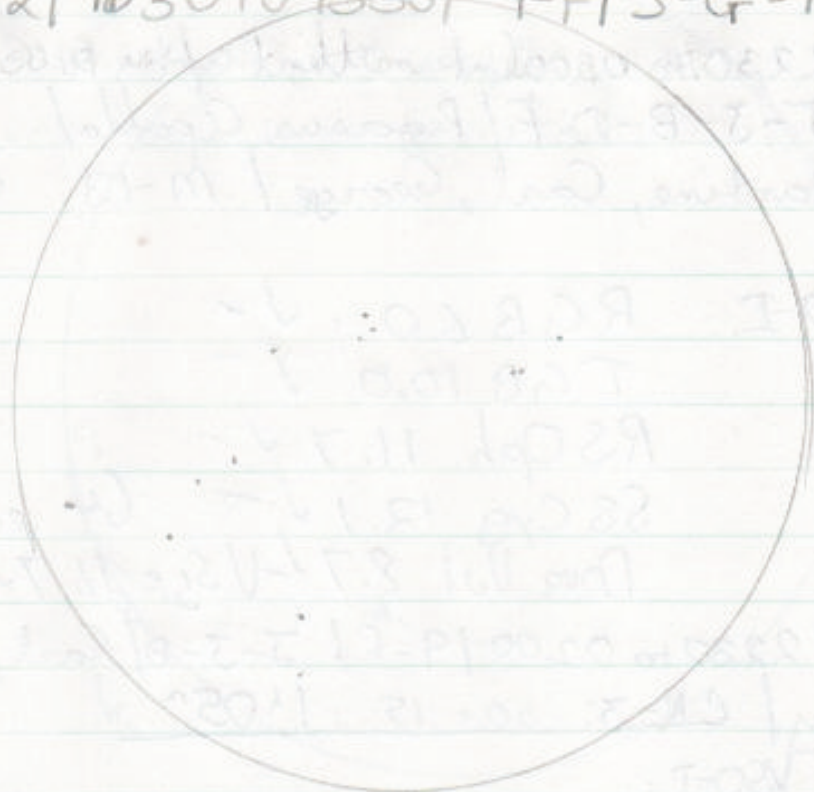
10/1200-1500/4-F/I-G-N/Mira 2/10+  
SS2.



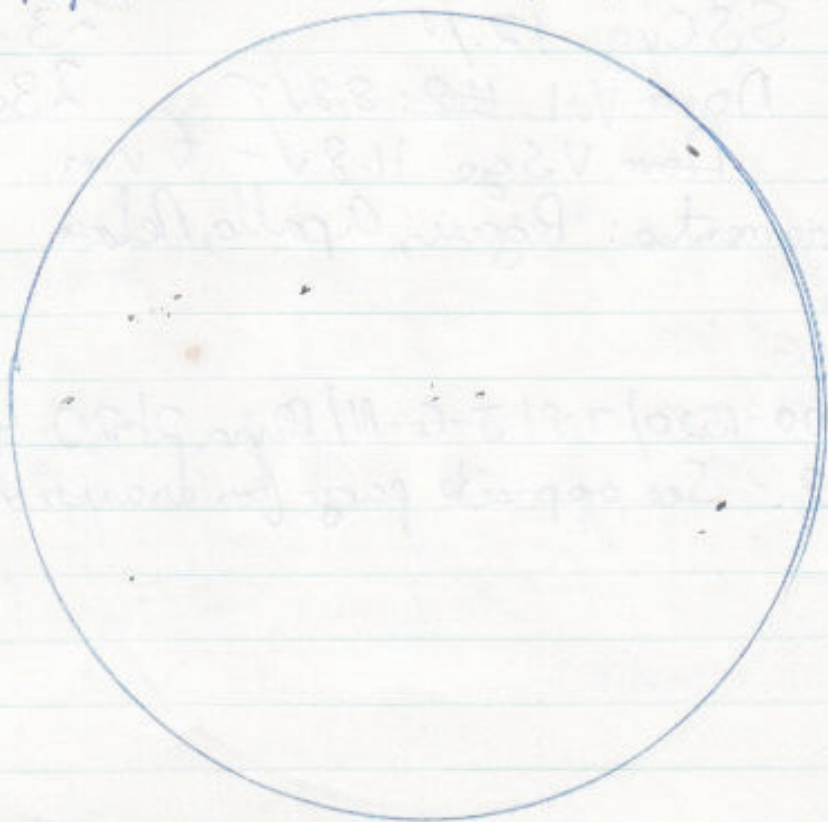


39855 12/1030 to 1530/ 4-F/J-G-N/ Mura 2/SS 2.

25, 50,  
including  
6-yr-old



39856. 13/1100-1500/ J-G-N/ Mura 2/SS-2.



3987EM2. 2230 to 0300 (intermittent after 0100) 9, then  
6-f J-J-B-D F / Pegasus, Apollo /  
Constantine, Carl, George / M-13. CN3 25m

VSO-I: RGB 6.0 ✓  
TAB 10.0 ✓  
RS Oph 11.7 ✓  
SS Cyg 12.1 ✓ 64 var.  
Nova Vul 8.7 ✓ V Sge 11.7 ✓

3988EM 14/ 2230 to 0200 19-f<sup>6</sup> / J-J-B / Carl, Ginette,  
Peggy / CN-3: 50 + 15 = 1<sup>h</sup>05<sup>m</sup> ✓

VSO-I:

RGB 6.0 ✓

TAB 10.0 - -

RS Oph 11.6 - -

SS Cyg 12.1 ✓

Nova Vul ~~11.2~~ 8.8 ✓

Nova V Sge 11.8 ✓ 6 var

Instrumenta: Pegasus, Apollo, Nelson

CN-I:

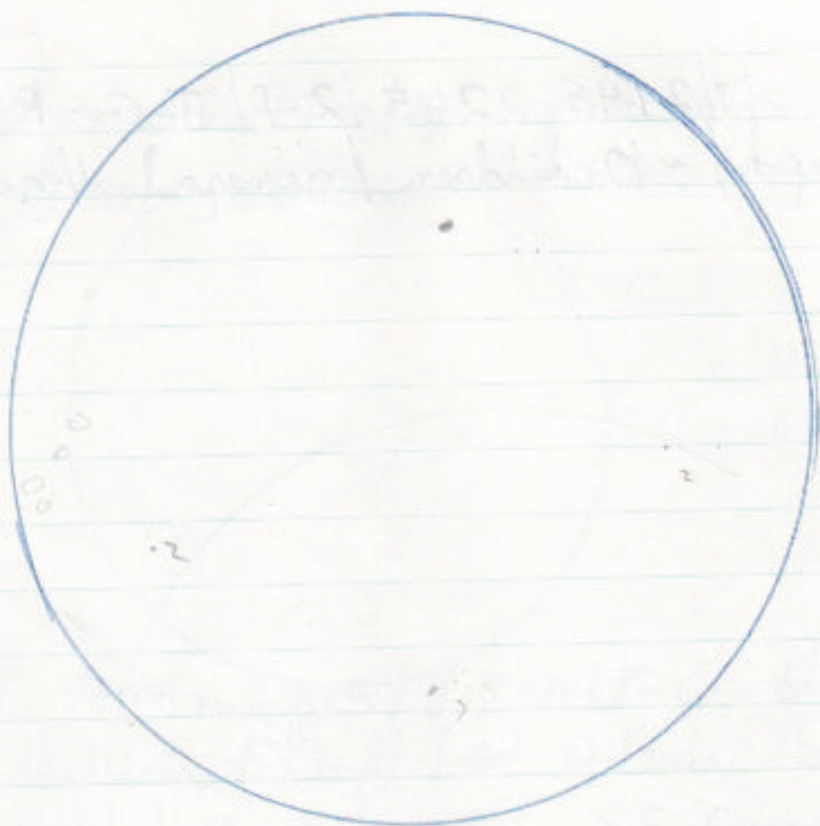
40-6 - 16-6 -

23-6 ✓

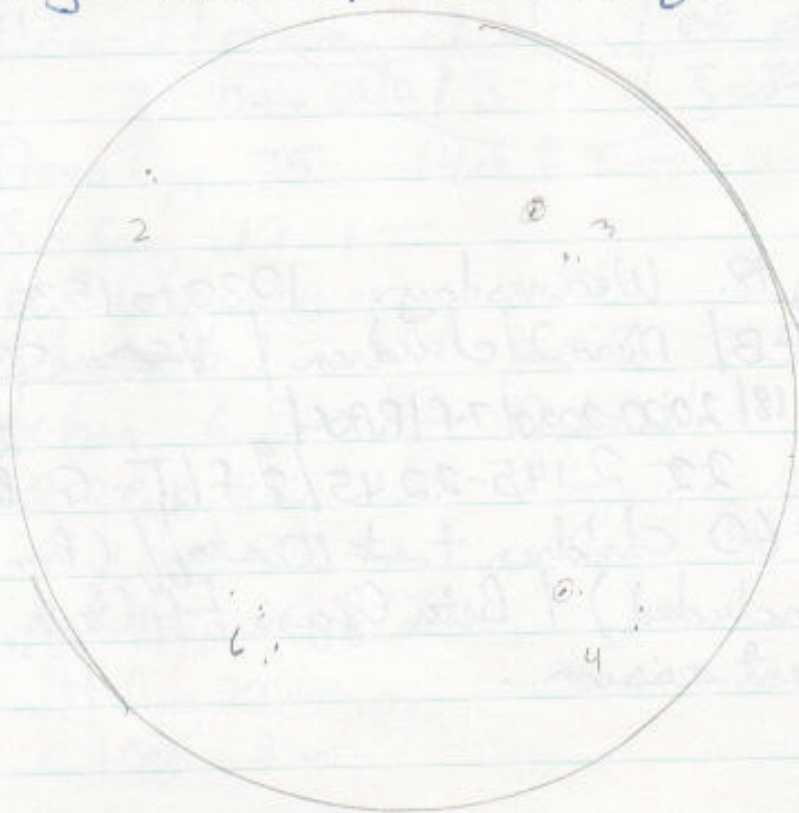
23a-5 ✓

3989S. 16/ 1500-1520 / 7-f / J-G-N / Myra 21-20 4-5 yrs old!  
SS-2. See opposite page for drawing.





39905 #6/17/1030- 1530 17-F/~~17~~ J-G-N/Mia 2/  
 many children / The Sun is fun ?



3991E2

17/2145-2245 / 2-F / J-G-R / Andromeda-Caph / ~10 children / general, Vega.



G 7  
SR 22  
R 92

3992S

July 18. Wednesday. 1030 to 1530 / 7-F /

J-G-B / Mira 2 / children / ~~VSO~~ SS-2.

3992bE2

18/2000-2030 / 7-F / RASC

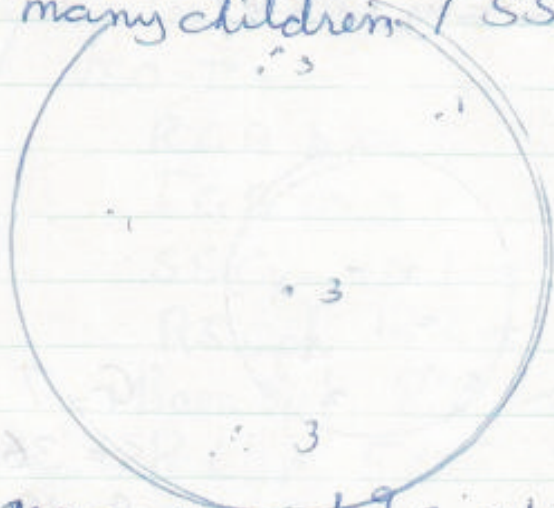
3993E3

22 2145-2245 / 8-F / J-G-R / ~~at~~ Andromeda

about 60 children + 10 staff (Pam + Ellen Coper included) / Beta Cygni + Altair, Deneb, M13. Excellent session.



3994S. 19/1000 to 1500 / 8-F / ~~19~~ J-G-N /  
Mira / many children / SS2.



5

11

61

3995E2. 2130 to 2315 / 8-F-AN-G-B / Andromeda /  
~60 children + <sup>15</sup> staff / Altair. SATURN for a  
few kids + @ VSO-I. SS Cyg: 11.8 - -

3996MB. ~0400-~0405 / 7-F / J-818-VE / - / Crescent moon.

3997S. 20/1005 to 1500 / 7-F / E J-G-N / Andromeda,  
Mira-2 / many children / @ photos. SS. 2

3998EM2 2230 to 0110 / 3-F / J-J-B, F, D / Pegasus,  
Nova Cyg 7.5 14.5 ? ? - Apollo, Helix  
SS Cyg 12.1 - 7x50s /  
RGB 6.0v; -  
g her 6.1 - J Cas 2.5 -  
x her 6.9 - Nova Vul 8.8 - M27  
RRGB 8.0 - V Sge 12.0 -  
SWAB 8.2 - u Cep 4.7 -  
XY Lyr 6.8 -  
AF Cyg 7.0 - 14 var.  
CH Cyg 6.9 -

39995

July 21/1515-1615/7-F/J-J-B(D)/Apollo and  
Pegasus/Gary Boyle



$$G = 7$$

$$S = 36$$

$$R = 106$$



\*4000EM2 July 21/22 15 to 19<sup>3</sup>/<sub>2</sub>-10-F/I-J-B-F-D/  
Pegasus, Apollo / Trudy + Kenny, Gary + Gordon  
Boyle / VSO-I:

RAB 6.0 ✓

TAB 10.3 ✓

SS Cyg 12.1 ✓

RS Oph 12.2 -

Nova Vul 8.8 ✓

R Lyr 5.0 ✓

Messiers:

56

57

13

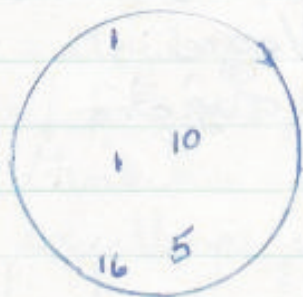
51

71

Meteor Watch ~45 minutes ~3 meteors.  
several satellites

40015

22/1140 to 1200 / 7-F / J-J-B / Pegasus,  
Apollo / Gordon / SS-2.

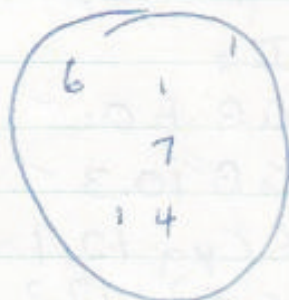


G = 5

S = 33

R = 83

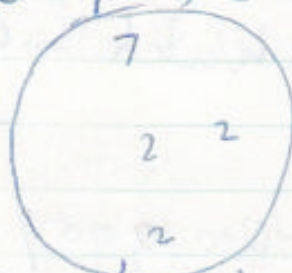
40029. - Monday, Jul 23 / 10am to 3pm / <sup>J-G-N</sup> Mira / other  
children / SS 2.



7  
20  
R=95

40003EMP22 2300-0030 intermittent / Const. 's house  
+ J-818-C / - / - / general.

40045. 24 / 10am to 3pm / J-G-N / Mira / others /  
SS 2.



G4  
S=13  
R=53

\* 4005EM 2330-0030 / 4-f / Constantine's place /  
Constantine + Genette / CN 3-10min ✓  
E L45. Vega  
as first object.

Mintaka first light  
ceremony.

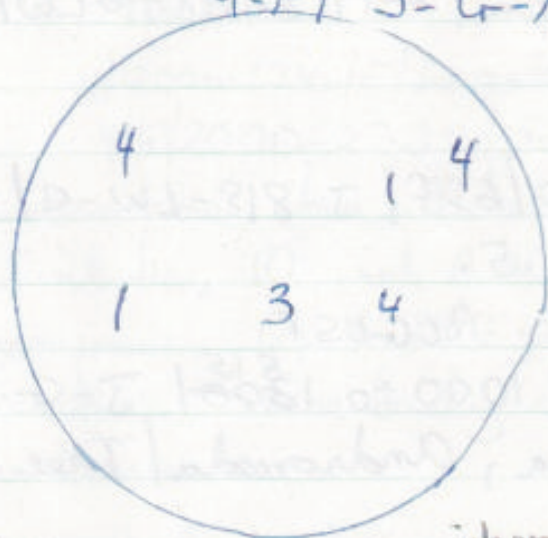


1000-1100

40065.

25/ 4-3-F/ J-H-G-N/ Mira | ~15 kids/  
Sun.

400752.

4-F/ J-G-N/ Mira 2 / some children/  
SS2.

4008E

28/ 1000 pm 1:30 am / 3-F/ STELLANE / many  
people but few instruments. Mishira, "Garfunkle  
II" / general.

intermittent

④ 40095-EM

28/ 1340 to 0215 / (almost 13 hrs) / STELLA-  
FANE / MINTAKA, about 30 others / Constantine,  
over 1000 others / B Cygni, M27, general  
sweeping. Mintaka wins third prize for  
mechanical excellence in a refractor.  
Telescope on display for full 13 hours.

4010S. 29/ 1000-1030/7-F/LE Stella fane/  
SS2.

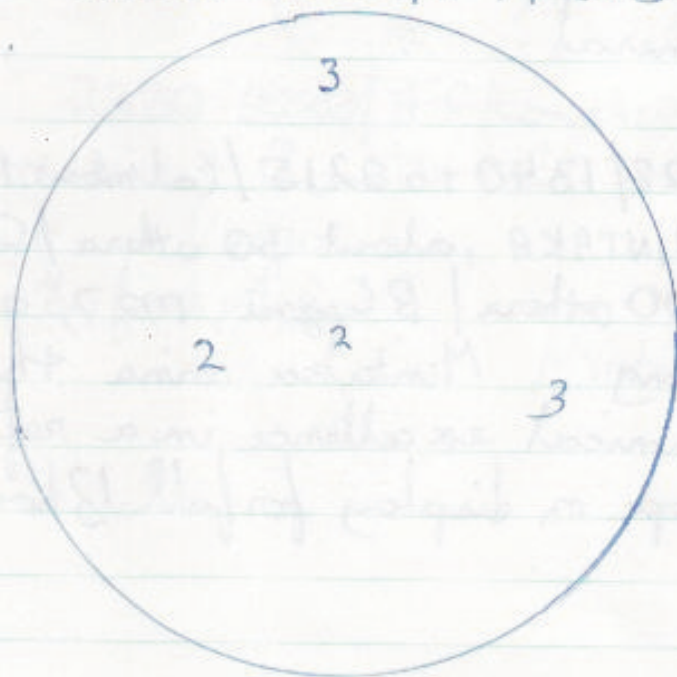
4011E2. 1100-1120 pm / <sup>5</sup>6-F/ J-818-~~W~~LW/ +-(CNK).  
Dome 3.2.

4012E. 30/ 2330-0000/6-F/ J-818-LW-C/ -(Constantine)  
CNK Dome 2.5.

AUGUST

4013S August 1/ 3 1000 to 1~~300~~<sup>515</sup> / J-G-N/  
many kids/ Mira, Andromeda/ Tree viewing.  
SS-2.

4014MS 3/1100-1500/6-F/LE J-G-N/(Mira/others)  
SS 2.



G = 4  
S = 10  
R = 50.



\*4015M2 3/4/0000-0300/3-9 $\frac{1}{2}$ -/ Indian River  
Observatory / Search for comet Meier.  
David. Constantine. others.  
1R0-16, Mintaka.

4016S.

4/1200 to 1730 / - / Kingston Mall / others / <sup>Mintaka</sup> 10 inch / display

\*4017E2

4/5/2000-2330 / 5-F / Park in Kingston /  
Constantine, Leo, Mike, Dennis, Doug / - /  
at Mintaka, 10-inch AVD scope, 2" Tasco. / -  
Moon view. Up to 750 power with unbreakable  
Mintaka. One lady looked at the moon for  
over 15 minutes.

4018S

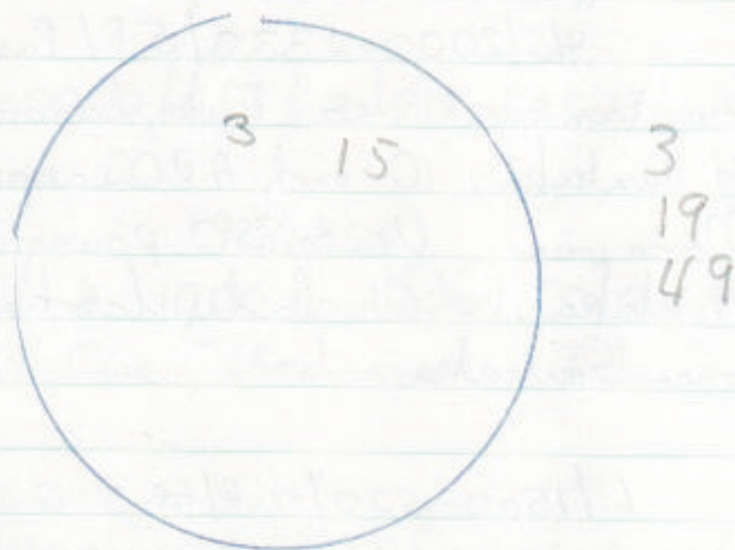
6/1500-1520 / 7-F / EE J-G-N / Beavers / Mira / SS 2.

\*4019E2

2120 to 2245 / 4-F / B-G-R / ~30 children / Andromeda - Capri / at Moon.  $\beta$  Cygni. Moon is best object for kids & people without experience. You can see if light enters their eye or not.

4020M. 10/11/7r. 0300-0330/3-f/3-3-F/-/Londoners/general.

4021MS. 11/1230-1300 | ~~10~~<sup>3</sup>-f/3-3-B/Pegasus/  
Londoners/SS-2.



Aug 11

\*4022AN2 2130 to 0440/3-2-1 J-3-F, D, B/Jarnac II  
first light. Pegasus/Leo Enright. Peter +  
~ 8 from Ottawa. Charles Fassel from Niagara/

CD-III: 30 mins ↓

VSO-I: XY Lyr 6.4 ✓

RGB 6.0 -

RLyr 4.8 - 3 var

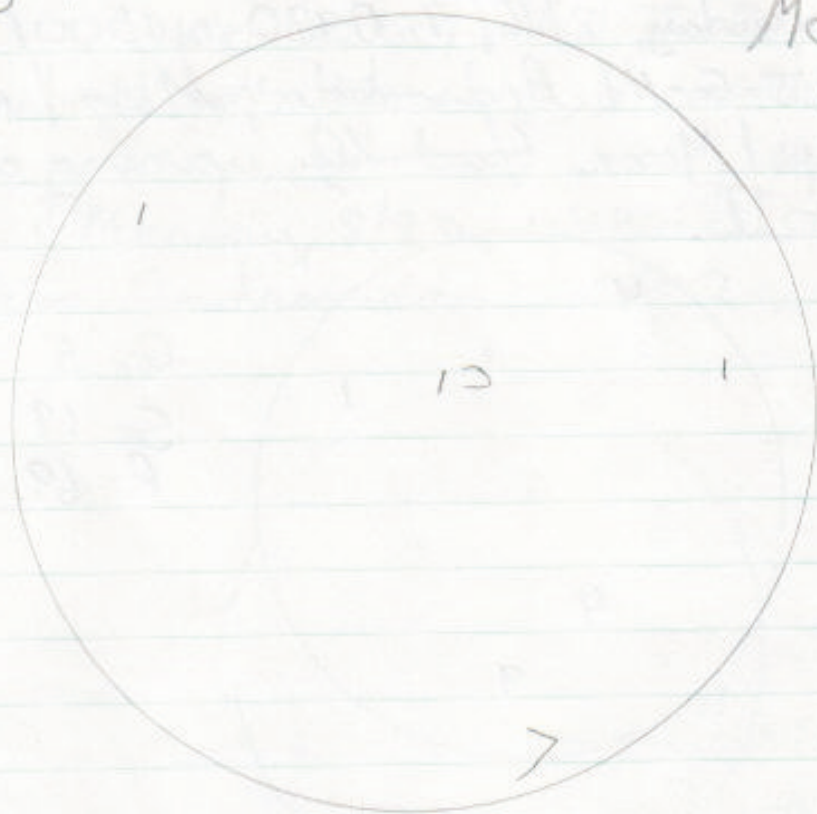
4023S. 12/1130-1200/3-2-1 8 near Jarnac/-/Solar halo.

4024S2. 1630-1700 <sup>1645</sup> 13-1 J-3-B/Pegasus/Londoners. →



4025S. Aug 14/0930 to

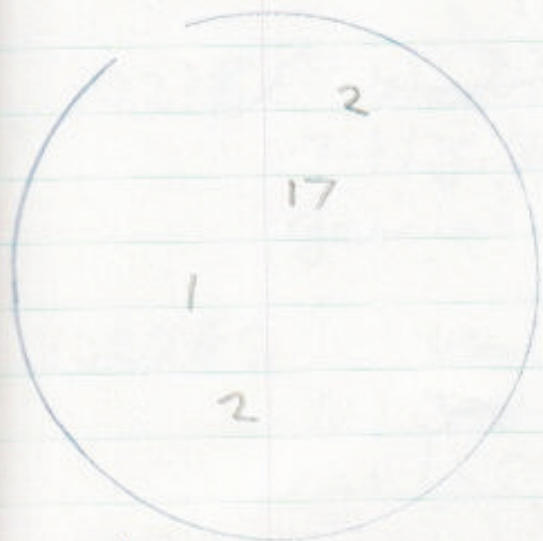
13-F1J-G-N/Andromeda/Mira)  
Moon with Ceph.  
SS 2.



30 children

Second group: 10 children  
with Andromeda  
AND Mira.

One child is here for 10 days, - father  
at IAU.

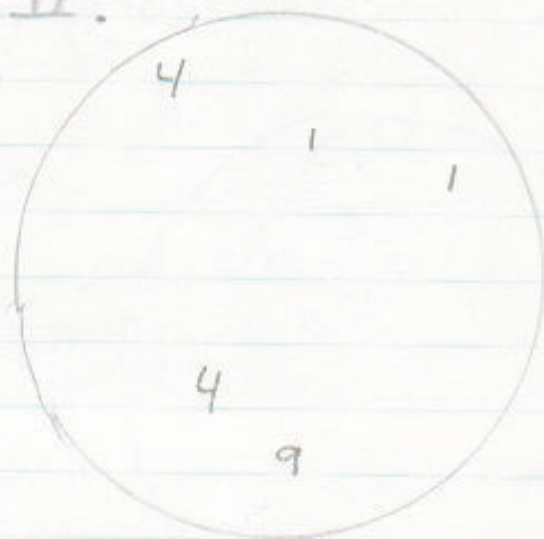


4  
22  
62

Third group: ~8 children  
with Mira - briefly.  
Another child (brother of first)  
- father at IAU.

4026S.

Thursday, 8/16/7 0930 to 1500/7.

3-f | J-G-N | Andromeda, Mira | several groups | Moon (~~last 1/4~~ waning crescent) SS-II.

G = 5

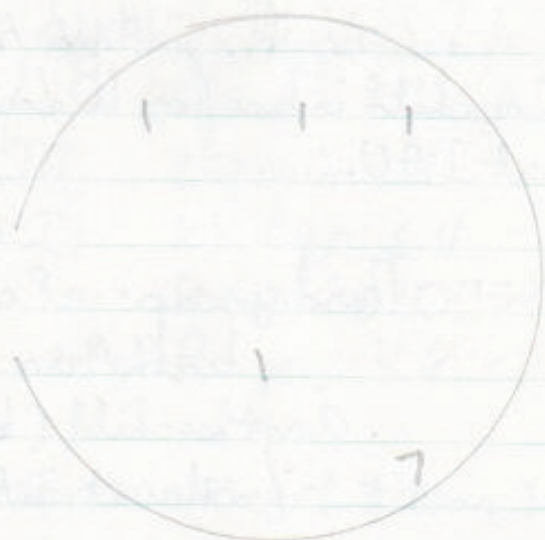
S = 19

R = 69

4027S.

Friday 8/17/ 0930-1500/3-F/6 J-G-N/

Mira - / SS2.



L

5

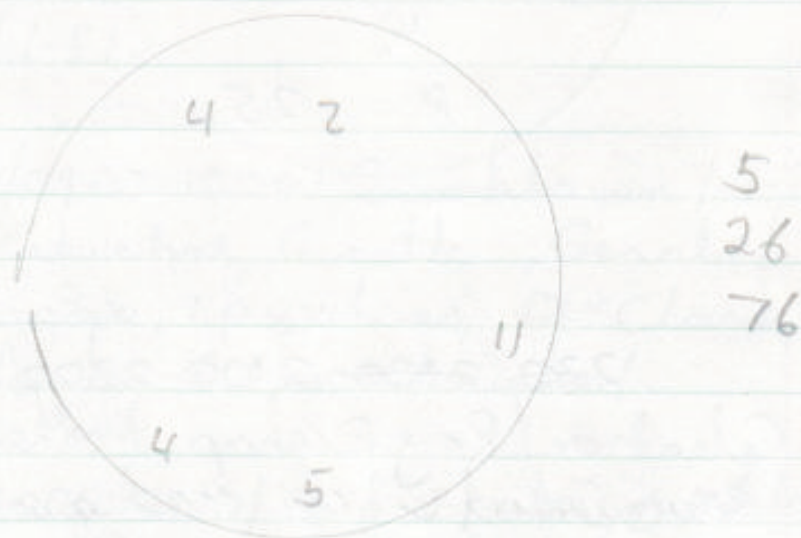
11

55



4028E2. 2130-2200/3<sup>10</sup>-F / J-J-B / - / Sheila /  
fireball -4 through Hercules. Perseid.

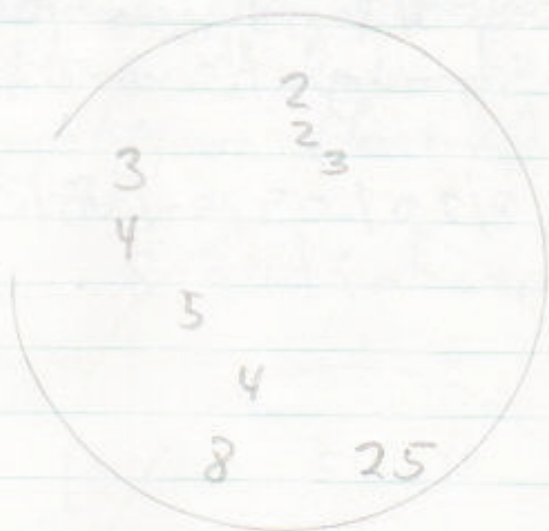
4029S. ? Monday, 8/20 / 0930-1515 / 7-F / J-G-N /  
Mira, Andromeda? / SS-2.



4030E2 should be after 4026S: Thurs, 8/16 /  
2300-2315 / 7-F / UdeM campus / - /  
Roy B. Terry Dickenson, Norm Sperling /  
General. CN-5. Dome.

4031S.E ~~Wed. 8/22 / 7-F~~ Mon 8/20 / 2300-2320 /  
7-F / J-818-LW / Jurnac - II / Card, Peggy /  
General.

4032ES. Wed 8/22. / 0930-1500 / 7-F / ECP J-G-  
N / ~~J-81~~ Mira, Andromeda / other child-  
ren / SS2.



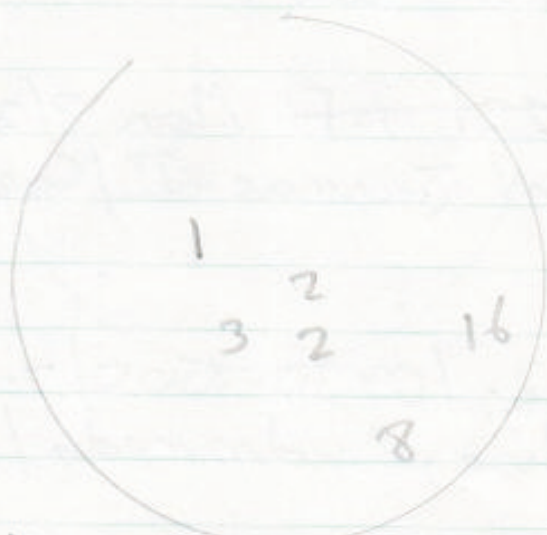
9  
56  
146.

4033E2

230-2130-2100-2300/7-F/RASC/  
Celestion/Roy Bishop + others/β Cgg +  
examination of antique scopes. RGB:6.0  
|var = 4

4034S.

23/210 0930-1200/6 4-3-F/  
J-G-N/Mixed several (~20 children/SS2)



6  
32  
R=92

4035S.

2.5/~1900-~1920/~4/4-3-F/Toronto + ven/Gerald, Conat. +  
Anette / Double Sundon.



4035EMR August 25/26/ 2335+00100/ Peter's to + Dianne's  
house, London, Ontario / 4" Tasco / Peter, Dianne,  
Gerald S. Gerald C., others / L-M31. 3 meters.  
CN-5. Dome, obst. in w+n. ✓

④ 4037E.P 26/27/ 2200-2210 / Brookhaven, Delphos,  
Ohio / Leslie C. Peltier, Constantine, Ginette,  
Gerald / 1-f/.

④ 4038S. 27/0900-1000 / Brookhaven / 1-f/  
Leslie, Constantine, Ginette, Gerald /  
Transit scope, spyglass, 12" Clark, 4"  
finder Clark, 6" comet seeker.

4039E 28/2000-2100 / E of Clinton, Oklahoma /  
Constantine + Ginette + Gerald / the Moon,  
beautiful sunset. Constantine discovered  
a strange reddish object in west. ? Comet-  
like but not really.

4040E2 28/2220-2240 / 7-f / Clinton, Oklahoma / Nelson 1-1.  
CN-V- Dome 2.5 ✓

CN-I: 40 6 23-5 23e 5  
VSO-I: yher 5.7- V2Cam 53 - RGB 6.0'  
xher 6.9- TUCVn 6.0-  
uGp 4.4- YCVn 5.9-  
AF Cyg 7.3- XY Lyf 6.4- 11 var =  
R & Dra 7.1- J Cas 2.5- 15



MDT  
4041 EP 29/4<sup>9:50</sup>~~00~~-10:00/~~7-F~~<sup>PM</sup> 2-F / Soc Socorro,  
New Mexico / - / Constantine / general.

MDT  
4042 #ES. 30/9:00 am - 11:45 am / 10-F / Very Large  
Array / Nelson (for a look at sun) / Const, Grinette,  
Gerald / Tripup Dish # 7.

MST  
4043 EP2 30 / ~ 2300 - ~ 2310 / 7-F / Gerry's place /  
- / ~~G~~ General.

0015  
4044 EM 31 / 2200 - ~~2300~~ / 8-F / Gerry's home /  
Jarnac II /

CN-I: 40-6 / 23 5.5 / 23a 5.5 /

VSO-I RGB 6.0 -

SS Cyg 6.6 -

W Cyg 6.6 -

AR Cep 8.1 - 580 am = 1820

SS Cep 8.0 -

4045 S. Sept 1 / 1300 - 1540 / ~~10~~ 3-F / Kitt Peak  
National Obs. / Gerald, Constantine + Grinette /  
Refr. in visitor centre / SS-2.



4046E. September 4/2100-2130/7-F/3 Corona de Tucson, Arizona - 1 Gerald / Test for new Sarnac observatory site.

4047E2. ~2300-~0000 / 7-F / Gerry's place / Rigel / FT Test for Rigel.

4048ES. 5/1500-1530 / 7-F / Planetarium / TV monitor / poor sun image.

4049E2. 1900-2000 / 7-F / Gerry's place / Gerald / Cosmos and Rigel / set up for eclipse / Moonrise - View of Arcturus.

\*4050AN3 2130-0600 / 7-F / Gerry's place / Cosmos, Rigel / also Rho (camera for w.a.) / LPO-I: TOTAL ECLIPSE OF THE MOON.

01:15. MST. Other eclipses.

cond.	Moon.	Sun	Sun.
2	1961 Aug.	10-1975-May	23 1959 Oct
8	1963 Dec	23-1975-Nov	3-2 1963-July
1-2	1964-June	7-1977-Apr	1 1970-Mar
7-3	1964-Dec	1971- <del>Jan</del> Feb 10	1 ? 1974-Dec
7	1968?-Apr	1972-Jan 30	3 1977-Oct
5	1970-Aug		7 1979 Feb



2

Predictions  
0218 1st etc  
0354 mid eclipse  
0530 4th etc.

④4050AM3

If this list is complete, then this is my <sup>12</sup>~~10~~<sup>th</sup> lunar eclipse + my <sup>16</sup>~~18~~<sup>th</sup> eclipse.

Moon should be slipping into penumbra as I write this.

0124. Nothing.

Because of La Soufriere's eruption (Etna too) a few months ago, I predict a very, possibly extremely, dark eclipse.

0130. - nothing

0137 - very faint penumbral shading seen through Rigel on east side.

0144 - Nothing really

→ 0148 - By projecting image through Rigel onto my hand, one can see that penumbral shading is well underway.

Still nothing really with ne

0155 - Shading now detected in camera viewfinder through Cosmos  
Naked eye also.

0200 - Heavy shading in projected image

0204 - Quite marked naked eye

- some light cirrostratus  
but not near moon's position  
- clouds breaking up



D4050AN 3

0206 ex frame - edge is not projecting well.  
 0214 - very heavy ne edge almost invisible in proj.  
 0219 - contact !!

Q222 my little program going well.

- Phase 1 - Cosmopt Olympus  
 2 - Hasselblad (mblon Cosmopt)  
 3 - Pho Cte attempting a streak at  
 F/22 but ASA 400.

3:00:30. Shadow touches  
 E rim of Tycho (CN-5)

311 - Sky is getting very dark -  
 Moon is passing by two stars  
 in Pices

Moon in a line halfway between  
 W. sy of Pegasus and Fomalhaut.  
 3/19 Sky 100% clear, no haze

325 God it is beautiful through Regis

0332 Thrid etc.

356 - mid eclipse -



very  
 dark  
 brown



④4050AN3

outsides of arc & crescent  $L=1, 1.5$ .

0417-3rd contact caught with Hasselblad

Just a spot of light  
- like a diamond ring  
in slow motion ...

0423

0429! I have just transferred  
Cosmos to visual mode.

She has been tracking the moon since  
about 9:45 tonight

0438: Gerald had aligned Cosmos  
very well, using Polaris II. Only  
minor corrections were needed from  
time to time all night.  
65% still covered.

0455- 50% coverage - observed in  
Cosmos + Rigel.

507. Twilight.  $1/3$  of moon still covered.

5:13. Another look. Dawn brightening.

0519 Still brightening - another look -  
Cosmos at med power, Rigel at low.



- 4050 AN3 .0530. approaching fourth contact.  
 0531 Just past 4<sup>th</sup> contact. Heavy penumbral shading.  
 0537 Weak penumbral shading w/ Rigol visible naked eye. & weakly through Cosmos.  
 0549 possible faint trace of penumbra left. Sky very bright - no stars.  
 0555- ? doubtful penumbra  
 0600-end session.

- 4051 MP 6/7/0000-0010-13-F/Gerry's house / -/-/ general.  
 4052 M 7/0000-0015-13-F/Prescott, Ariz / -/-/ general  
 4053 M. 8/2210-2230/ 2-F/ Winslow, Ariz / ~~7~~  
 Jarnac II / <sup>Suzie,</sup> a girl from England / Moon  
 4054 EP 9/2000-2005/10-F/near Tucson / -/-/ general.  
 4054 E2 9/2300-2000/7-F/Gerry's place / -/ Jarnac II / Moon.

VSO-I: SS Cyg (9.7-)  
 W Cyg 6.6- 2 var

- 4056 E - 10/2030-2100/7-F/Gerry's place / Jarnac II /  
 -1. VSO-I: SS Cyg (9.7-  
 R G B 6.0-  
 T G B 10.0-

3 var = 5



4057MS 11/12/0030-0430<sup>~</sup>intermittent/9-f/betw.  
Tucson + Chicago / -4- -/Gerald/General.

4058MP 16/17/ ~0030-~0040/7-f/Constantine's  
place / -/Constantine/general.

4059E. 17/18/ from 1905 to 2050 EDT / betw.  
Montreal + Chicago / Very long twilight.  
over 100 minutes of witnessed twilight.

4060E2. 2200 to 2300 intermittent(CST) /  
betw. Chicago + Tucson / general.

4061~~M~~E. 18/19/ ~2100 to ~2215 / 7-f/Gerry's place /  
-/Billy/general. Billy's introduction. Gerald  
letter.

4062EP 19/20/2300~ - 2310~ / 7-f/Gerry's place /  
-/general.

4063E. 20/21. /2200 to 2245<sup>~</sup> / 7-f/Gerry's  
place / Garnac II / Gerry / VSO-I:  
W cyy 6.6 -  
SS cyy (10) 9.8 -

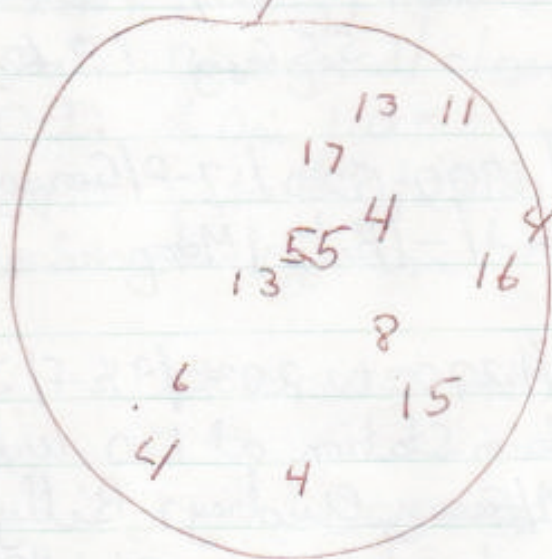
2 var=7



4064E

21/22/2330-2345/7-F/Gerry's place/  
Jernac II/-general sweep.

4065S.

22/23/1420-1600 176-3-F/~~LE~~ Kitt  
Peak National Observatory / Solar telescope  
at visitor's centre

G 13  
RS 170  
R = 300

$$\frac{130}{20}$$

$$\frac{130}{120} = 300$$

4066E2M2

22/23/1645-0300 19-F/Saguaro  
N+1 Monument / Mintaka + several other inat /

TAAA /

RGB 6.0-

TGB 10.0-

SSCyg 8:05 11.5 - 3<sup>4</sup>var. 10

≠ Vic #  
Stryker /  
+ others.

Later: Equinox inaugural.

M31, βCyg,  
M13 etc.

4067SE. 23/24/1800-1900/6-f/Tucson/-(Billy, etc)  
Sunset, Cres. moon.

4068E2 ~2300-~2315/7-f/Gerry's place/-/-/general.

4069E 24/25/1800-1900/2300-2330/7-f/Gerry's  
place/Jarnac II/Dogs/VSO-I:  
SS Cyg (9.6- 1 van 211

4070E 25/26/1900-1920/7-f/Gerry's place:  
7750 Oakwood/-(Billy/Moon.

\*4071E2. 25/26/2000 to 2030/9½-f/Jarnac  
Observatory, Main Station at 120 William  
Carey St./J-M/Gerry, Audrey + Billy/general.  
First session at new home. cf. 4046E.

4072E3. <sup>interruption</sup>  
2130 to 2300/9-f/G 7750@Oakwood/  
Jarnac II/Dogs/ SS Cyg:  
(9.6-  
XY Lyr 6.4- 3 van ~14  
WCyg 6.6 .-



4073E. 26/27/ ~2300--2315/7-F/Oakwood Circle /-/-/general

4074E. 27/28/ Thursday / 2100-2200/8-F/Oakwood  
Circle/Billy at first?/Jernac II/ \* general  
observing and viewing with astrocam.

4075E 28/29, Fri / 1700 - 1715 / 7-F/Oakw/<sup>AP</sup>/Billy/General

4076M2. 28/29, Friday / ~~~0300~~<sup>0245</sup> to ~0300 / ~~7-F~~ 10-F/  
J-Main - Back yard / -/general. Beautiful sky. CN5  
→ VSO-I:  $\angle$  Ori 1.0 - 77 Gem 3.5 - 2 var - 16.

4077E. 29/30, Saturday / 2230 to 2245 / 3-F / J-M-F+B/  
- / Vic Stryker / general.

4078M2. ~~28~~ 0430-0445 / 2-F / J-M-B / Alphecca / -/  
general.

~~OCTOBER~~. still September

4079BM 30/31, Sunday / 0200-0300 / 10-F / J-M-B (F)  
G Jernac II / - / general. mostly ~~just~~ during  
2nd half-hour. 1 small meteor 5<sup>th</sup> mag.

~~40~~.

OCTOBER.

40805.

1/1645-1715/Saguaro Nat. Monument/Olympus lens/  
-1 Moonrise over Rincone.



4081M2

0215-0230/9-F/5-M-B/Alphacca/-1

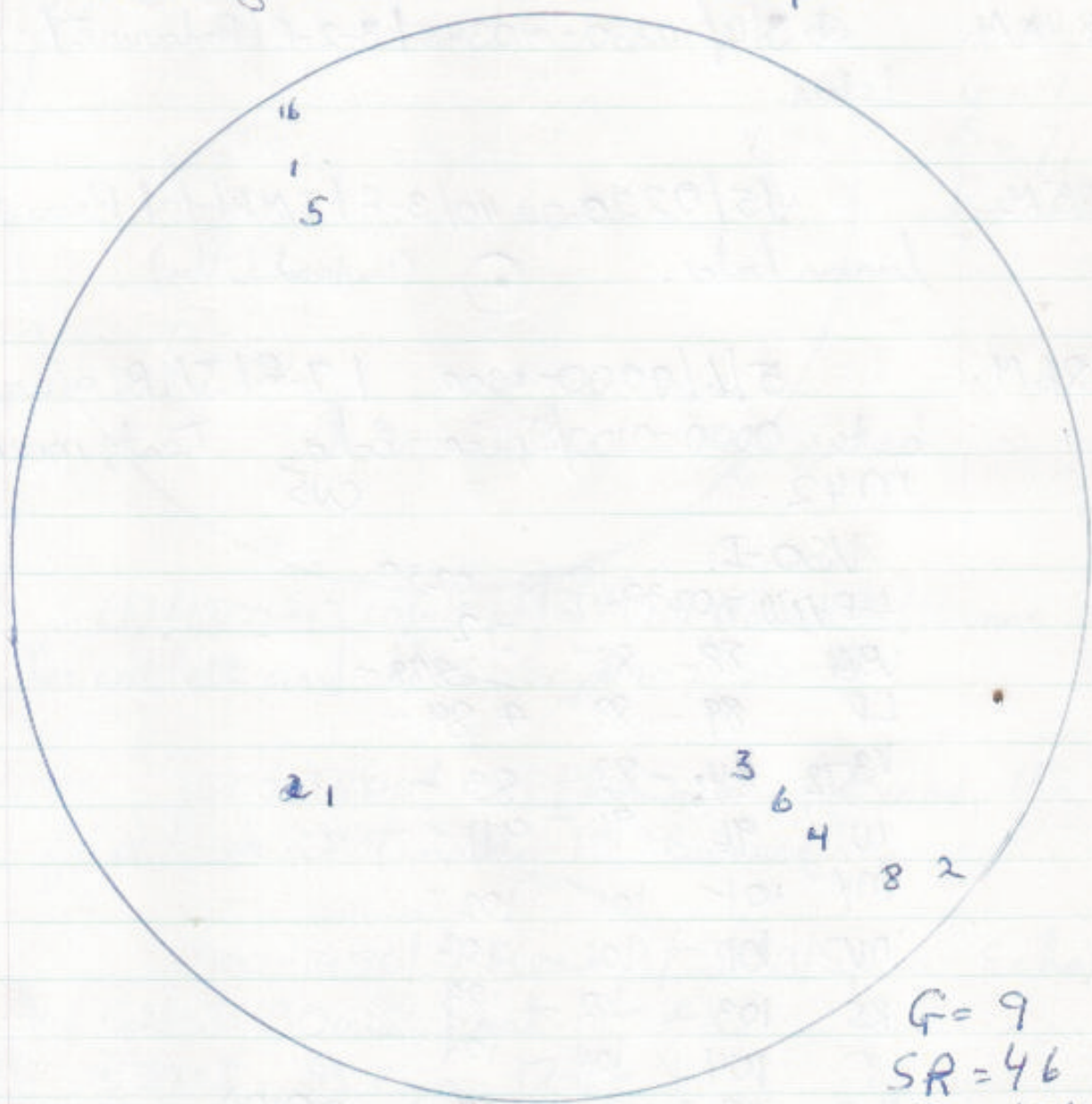
VSO-I: ~~A~~ W Cyg 6.9 -

~~SS~~  $\delta$  Cas 2.5 /

$\mu$  Cep 4.5 / 3 var.



⊛ 40825.      October 2, 1979. / 11:00-11:15 / 7-f / JMB)  
 Jarnae II / - / SS-II.      Twenty years since  
 Observing Session I: Solar Eclipse.



4083M2. 0120-0135/6-F/JMB/Alphecca/-/Moon  
Dome 2.5. Moon. M42.

4084M. 3/4/~0330-~0345/3-2-F/PolarisI/-1-/Moon,  
1star. JMB

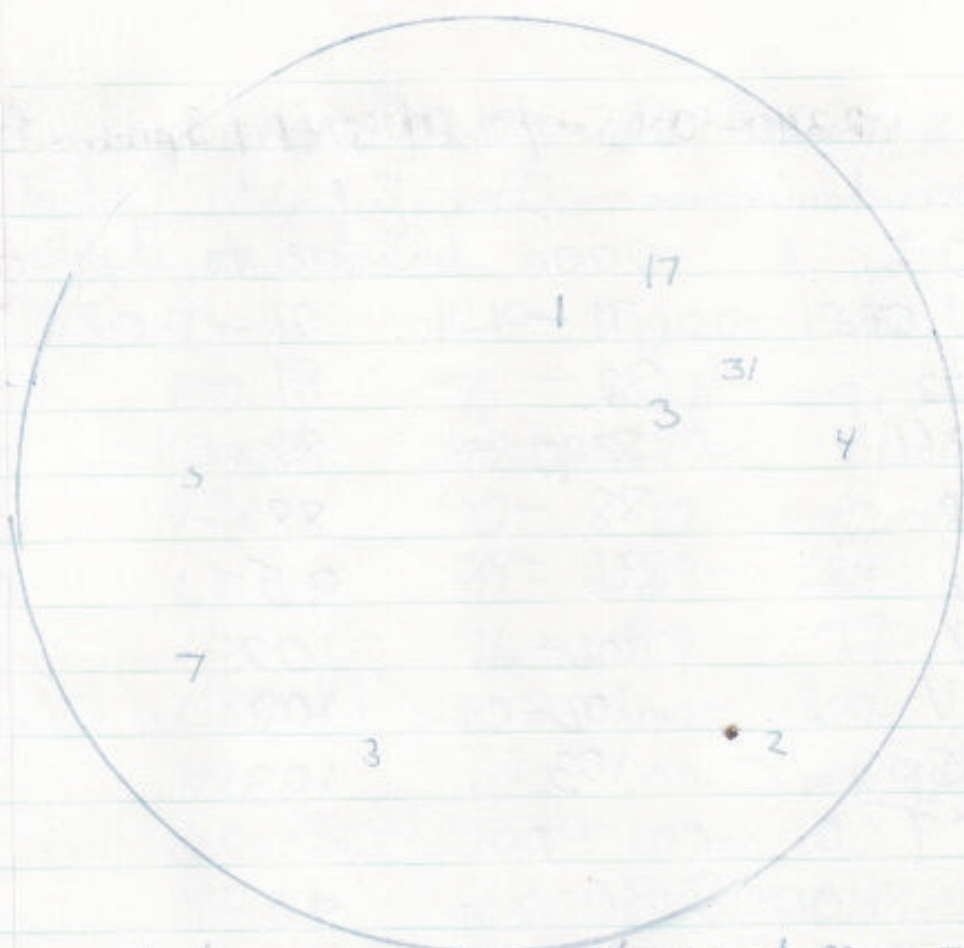
4085M. 4/5/0220-0240/3-F/JMB/1-1 Beautiful  
lunar halo. (centered better)

4086M. 5/6/0000-0300 17-F/JMB, a walk  
betw. 0000-0100/Spica-Echo. Test, moon,  
M42. CW5

VSO-I:

	0230	0240	0250
<del>LP</del> V361	88-	89-	72-
LP	89-	89-	7898-
V372	84-	82-	83-
IU	96-	96-	97-
MY	101-	101-	102-
NV	101-	101-	102-
KS	103-	102-	103-
T	104-	104-	104-
#2	89-	89-	89- 30var =33.





$$G = 9$$

$$S = 71$$

$$R = 161$$

4087S. 6/7/1300-1330/10-F/JMB/Mira III/Lynne  
Grauntlett and Vic Stryker/SS-II.

4088S2. 1500-1600/10-F/Patagonia/Lynne, Vic, Bob/  
first look at Tinsley 12" Cassegrain.

4089E3 1900-1950/8-F(moon)/JMB/Spica-Echo/  
-/CN-3: 30min. West. — ✓  
VSO-I. SS Cyg 12.1-  
RS Oph 12.1-  
TGB 10.0- 4var = 37.  
RGB 6.0-

4090EM4

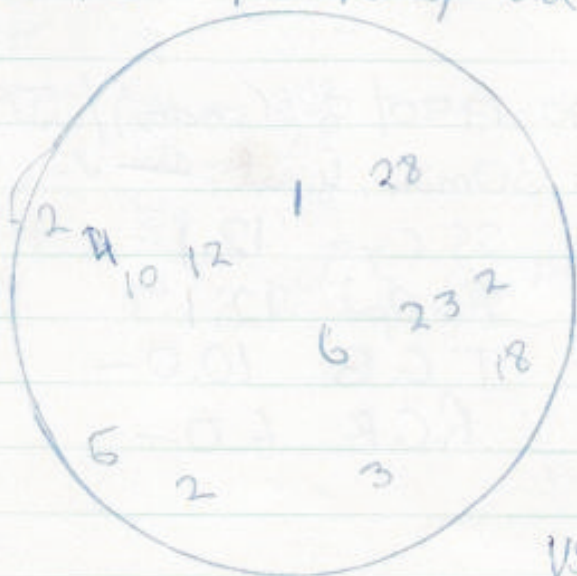
2340-0045 ~ / 7-f / JMB / Spica - Echo / - /

VSO-I:	0000	00 10	00 20
NU Ori	71 -	71 -	71 -
V372	82 -	81 -	81 -
V361	89 90 -	88 -	89 -
LP	88 -	88 -	88 -
16	96 -	95 -	96 -
MX	102 -	102 -	102 -
NU	102 -	102 -	102 -
KS	103 -	103 -	103 -
RT			105 -
2	90 -	90 -	90 -
T Tau	10.5 -	105 -	104 -

31 van = 68

4091S

7/8/1710-1730 / 8-f / JMB / Mira 3 / - /



G 13  
RS 116  
R 246

1 van = 69

4092E2.

1900-2000 d / 10-f / JMB / Spica - Echo / - / CN 3; 30<sup>m</sup> West

VSO-I: 15000 cgg 15.0%



4092M3

0005-0130<sup>w</sup>

18-f(moon) / R JMB / Spica,

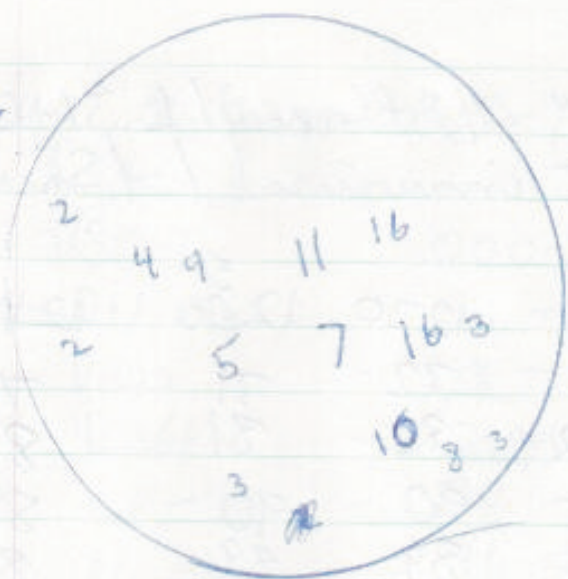
Echo 1, Surveyor II inaugural / Shirley  
Applegate + friend

VSO-I:	1210	1220	1230	1240	1300	1310
NU	71-	72-	71-	71-	71-	71-
V372	82-	82-	81-	82-	82-	82-
V361	90-	90-	90-	89-	89-	89-
LP	89-	89-	89-	89-	89-	89-
10	96-	97-	97-	97-	97-	97-
MY	102-	102-	102-	102-	102-	102-
NU	102-	102-	<del>102</del> 99-	99-	100-	100-
KS	103-	103-	103-	103-	103-	103-
T	105-	105-	104-	104-	105-	105-
2	90-	90-	90-	90-	90-	90-
T Tau	104-	104-	104-	104-	104-	104-

55 var = 124.

Surveyor II is a superb instrument.  
Moon in waxing gibbous phase was  
spectacular.

40945.



October 8/9/1000-1015/  
8-f/JMB/ Mira Ceti 3/-/  
SS-2.

G: 14  
S: 99  
R = 239

4095EL

2030-2045/3-f/JMB/-/-/ CN- $\nabla$  Deneb-

4096M3

0135-0155/2-3-f/JMB/Betelgeuse/-/

Moon.

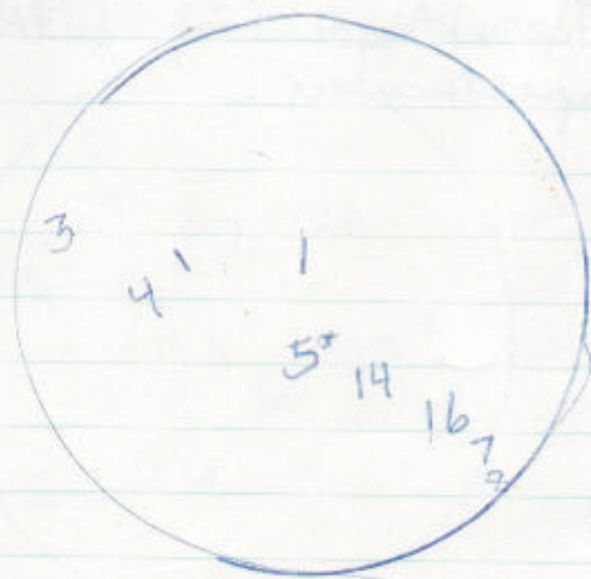
USO-I:

NU Ori = 7.2-

1 year = 125.

40975.

9/10/1100-1115/3-f/JMB/Mira 3/-/SS 2. haze + clouds  
sun



G=9  
S=59  
R 149



4098E2

1900-# 2040/10-9-F/JMB/Spica, Echo,  
Pegasus/-Neighbors / CN-3: 60m West - ✓

VSO-I:

SS Cyg 12.1 -

7:30 TAB ~~9.6~~ 9.78:15 TAB ~~9.7~~ 9.8

3 var = 128

4099M3

0005-

1

	0010	1220	1230	1240	50	1300
NU Ori	71-	71-	71-	71-	71-	71-
V372	81-	82-	81-	81-	81-	81-
V361	90-	90-	90-	90-	90-	90-
LP	90-	89-	90-	90-	90-	89-
IU	96-	97-	97-	97-	97-	97-
MX	102-	101-	102-	102-	102-	102-
NV	99-	100-	100-	100-	101-	101-
KS	102-	103-	103-	103-	103-	103-
T	106-	106-	107-	106-	106-	106-
2	89-	90-	89-	90-	90-	90-
T Tauri	104-	104-	104-	104-	104-	104-

S Per 94-

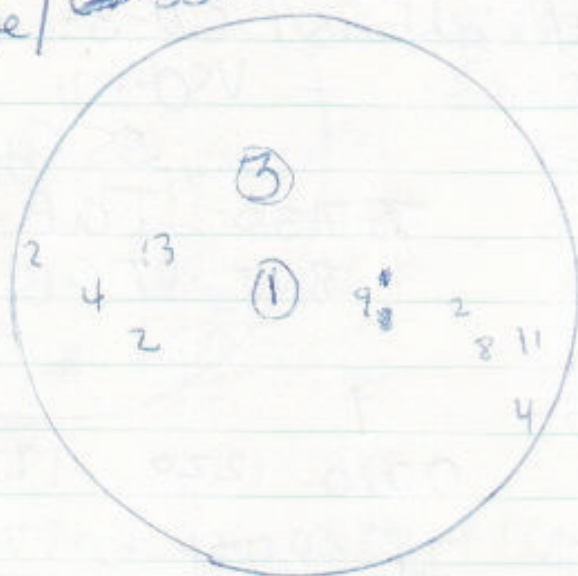
SS Cyg 12.1

T Tau - 13 10-104-

NV	71-	MX	100-
372	81-	NV	101-
361	90-	KS	103-
LP	89-	T	106-
IU	97-	2	89-

79 var = 207


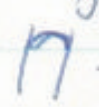
4100S. 10/11/1100-1150/2-F/JMB/Mira 3/Shirley  
 Applegate/SS2.



G 11  
 S ~~5~~ 59  
 R = 169

4101452. ~1600--1630/7-F/JM-inside/Surveyor II/  
 -view of MMT building.

404102E3 1845-2100/10<sup>or</sup> F/JMB/Pegasus, Spica-  
 Echo/-/CN-III. 1<sup>hr</sup> VSO-I. ✓ [Catalogue 15, 10, 12, 14.  
 40-6-16-6- TAB 1900 9.6-  
 23-5-31-5- 2045 9.6- 2var = 209  
 23a-5

4123E4 2230-2245/9-F/JMB/Spica-Echo  
 (Pegasus)/Test for Korrigeyepiece. Eye lens  
 goes in concave style.  not  - otherwise,  
 edge of field distorts.

VSO-I: SS eye 12.1- 1var = 210



\* 4104 EM5. 2355-0335. 19-F/SM B/Spica, Echo, <sup>Mercury</sup> Pegasus / -1

Also 9 First light for Mercury.

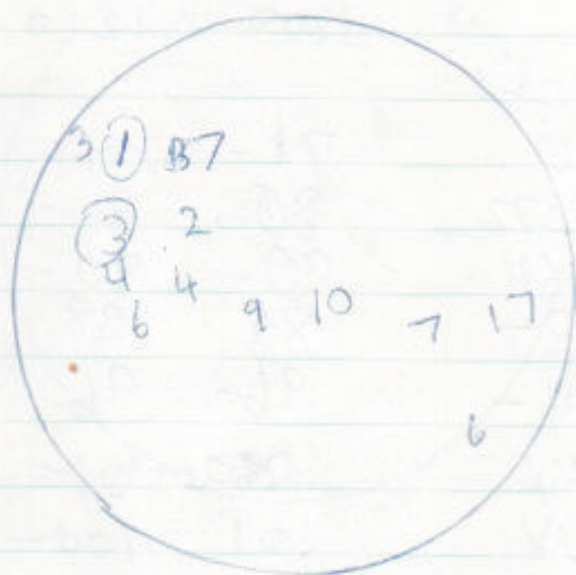
VSO-I:	1200	1210	20 30	40 50
NU	71-	71-	71-71	71-81-
V372	81-	81-	81-80-	81-81-
V361	90-	90-	90-90-	90-90-
LP-	88	88	89-89	89-89
1U-	96-	96	97-96	97-97
MY	100-2-	101-	102-102-	102-102-
NV	101-	100-	100-100-	100-98-
KS	103-	103-	103-103-	103-103-
T	105-	105-	105-104-	104-104-
2	90-	89-	89-	89-104-
TTan	105-	104-	104-90-	89-89-

SS Cyg 12 lat 12:15- Mira 3.9 - R Lep 8.3'

	0200	0210	0220
NU	71-	70-	70-
372	80-	80-	80-
361	90-	90-	90-
LP-	88-	89-	89-
1U-	96-	96-	97-
MY	102-	102-	102-
NV	99-	97-	98-
KS	103-	103-	103-
T	104-	104-	103-
2	89-	89-	89-
TTan	104-	104-	104-

113 view = 323.

41059. 11/12/1130-1145/8-9-F/JMB/Mira 3/-/SS2.



G 13  
S 79  
R 209

4106E2. 1920-2100/3-F/JMB/Mercury, Pegasus/-/1  
✓ CN3 - 30 minutes in cloud hopping mode  
USO-I: SSCyg 12.0- | var=324.

4107M3 0010-1330/9-F/JMB/Pegasus/-/1  
CN-5 Dome 3-  
JCN-3 0<sup>h</sup> 30<sup>m</sup> Lep + ven - S sky ✓



1220 1230 1250 1300 1310 1320.

ORI: NU	71-	71	71-	71-	71-	71-	71-
V372	81-	81-	82-	82-	81-	80-	82-
V361	89-	90-	90-	89-	89-	90-	90-
LP	90-	89-	89-	89-	89-	90-	89-
10	97-	95-	96-	97-	96-	97-	96-
MX	102-	102-	102-	102-	102-	102-	102-
NV	102-	102-	103-	102-	101-	101-	102-
KS	103-	103-	103-	103-	103-	103-	101-
T	105-	107-	107-	106-	107-	107-	103-
#2	90-	90	88-	89-	90-	90-	107-
Tau:T	105-	105-	<del>105</del>	105-	104-	104-	104-
							89- changing!

SSCyg 12.1

78 var = 402.

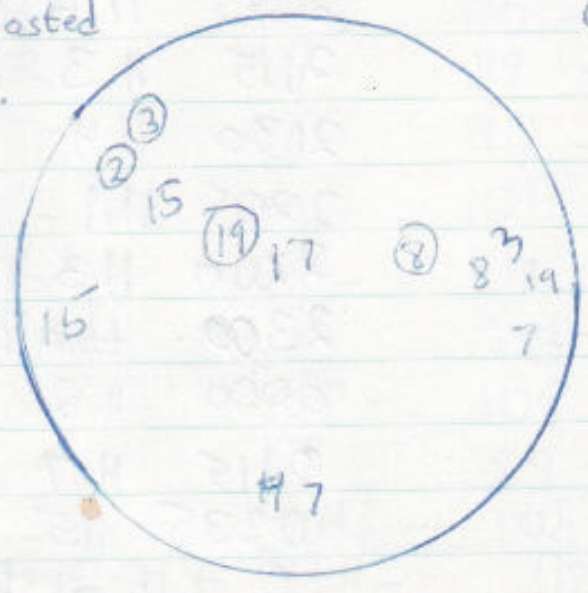
Oct. 12/13.

41085-AN-S. | 1650-0730. | 10-F | SMB vicinity | Mira 3 |

Session lasted  
14h 40m.

Olympus 1-1  
SS 2.

Solar Photos.



G = 12

S = 123

R = 243

Reading for Oct 12



④ 41025-AM cont'd. Photographs taken, ASA 400 f/11 at 1/1000 sec. of sun setting over Kitt Peak. about 1/2 mile North of I-10 on Houghton Road. Sun crowded with spots. The surge of feeling as the sun sank with a little green flash was indescribable. About as strong as at the solar eclipse.

CN-5 Sun Vern ~~1840~~ 1740

CN5 Twt Hz n 1815. back at JMB.

1820-1835: Photos + view of Kitt Peak Telescopes through Spica + Echo, set up at JMB station.

CN-3: 1 hr West ✓ (Pgs?)

V1500 Cyg 15.2 =

SS Cygni.

	1930	11.89-
Dome	2055	11.4-
~10000	2115	11.3-
3.2.5-	2130	11.4-
	2205	11.1-
	2240	11.3-
	23 <del>00</del>	<del>11.6</del>
	0000	11.5-
	0115	11.7
	0235	11.5-
	0315	11.6



Some light <sup>scattered</sup> cloud around 1600  
but cleared off for morning  
cn-3.

41085-AN-S: RWAur 050130 10.8- at 0120.

	0210	0220	0230	0240	0300	0310	0320
*# NU Ori	71-	71-	71-	71-	71-	71-	71-
V372	80-	80-	80-	81-	80-	80-	80-
V361	90-	90-	90-	90-	89-	90-	90-
LP	89-	89-	89-	89-	89-	90-	89-
IU	97-	97-	97-	97-	96-	97-	96-
MX	102-	101-	101-	102-	102-	102-	102-
NV	91.6-	98-	97-	97-	97-	98-	97-
KS	103-	103-	103-	103-	103-	103-	103-
HT	107-	107-	107-	107-	107-	107-	107-
2	89-	89-	90-	90-	90-	90-	89-
T Tau	105-	105-	105-	105-	105-	105-	105-
					HU	119-	118-
					AN	112-	114-

	0340	0350	0400	
NU Ori	71-	71-	71-	
V372	80-	80-	80-	
V361	90-	90-	90-	R Leo 61-
LP	89-	89-	89-	X Leo 12,2
IU	96-	97-	96-	at 4.15
MX	101-	101-	101-	
NV	99-	97-	99-	
KS	103-	103-	103-	at 05.45
T	108-	108-	108-	Z Cam 11.7
2	89-	89-	89-	
T Tau	104-	105-	104-	136 var:
HU Ori	119-	118-	119-	<del>400</del>
AN Ori	112-	114-	114-	538.



⑦ 41025-AN-S<sub>2</sub> conc'd

0500-05:40<sup>z</sup>  
→ CN-III again 0<sup>n</sup> 40<sup>m</sup> East!

05:50

Mira set up, looked at Jupiter

☽

0610 CN5 Tut Hzn.

0620 Moon with Mira 3.

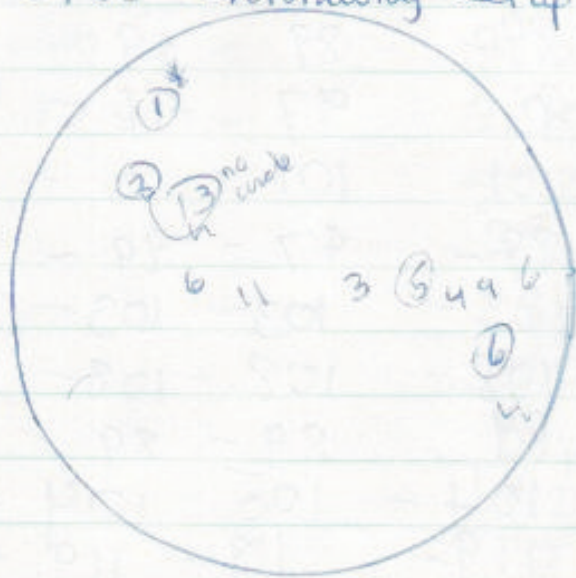
0631 Sunrise from ~2 mi NE of here. On way back, \* saw Kitt Peak's bldgs. (~75 miles away) shining very brightly like stars on the mtn. top. Mount Hopkins's MMT also, though not quite as brilliant.

0643 view of Kitt Peak through Mira.

0655 ~~S~~ Setup Mira for SS2.

0700 Continuing setup.

0712, SS-2.



Circle means that a big spot is included.



G = 12  
S = 70  
R = 190

Reading for Oct 13.

15 observations this session.

07:30 - Session ends.



409M 13/14 0005-0350. 110-f/ JMB/ Pegasus  
and Spica - Echo 1-1

SS Cyg is on its way up Vindication!

0015	9.5-	0245	9.2-	RW Aur	10.9-
0030	9.5-	0305	9.2-	Z Cam	11.7-
0055	9.4-	0325	9.2-	CN 3	1420" ✓
0120	9.3-	0345	9.2-		NGC 1395?
0150	9.3-				11.5 m.
0220	9.2-				

	240	250	300	30'	320
Orig <del>V3</del> NU	71-	71-	71-	71-	71-
V372	80-	80-	80-	7.9!!	81!!
V361	90-	90-	90-	90-	90-
LP	90-	89-	89-	89-	89-
IU	96-	96-	96-	96-	97-
MX	102-	102-	102-	102-	102-
NV	97-	98-	97-	97-	97-
KS	103-	103-	104-	104-	103-
T	104-	106-	105-	106-	107-
2	89-	89-	89-	89-	89-
AHU	117-	118-	118-	117-	117-
AN	116-	114-	114-	114-	112-
TTam	105-	108/4	104-	104-	104-

77 var = 615

⑦ 41085-AN-S<sub>2</sub> con'd

0500-05:40z  
→ CN-III again 0' 40" East!

05:50

Mira set up, looked at Jupiter

☉

0610 CN5 Twt Hzn.

0620 Moon with Mira 3.

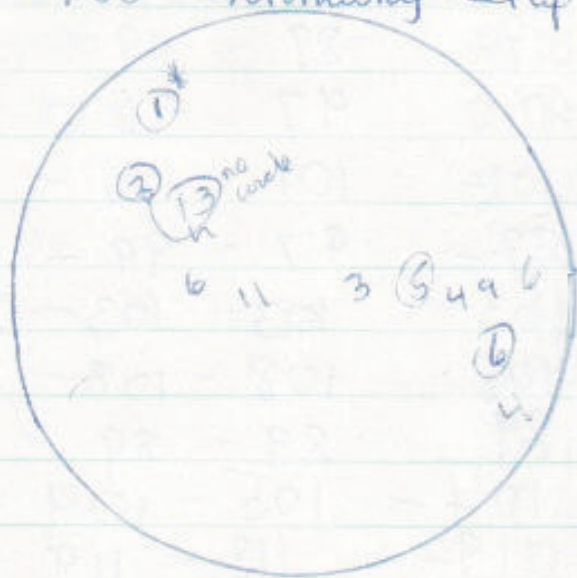
0631 Sunrise from ~ 2 mi NE of here. On way back, K saw Kitt Peak's blobs. (~ 75 miles away) shining very brightly like stars on the mtn. top. Mount Hopkins's MMT also, though not quite as brilliant.

0643 view of Kitt Peak through Mira.

0655 ~~S~~ Setup Mira for SS2.

0700 Continuing setup.

0712, SS-2.



Circle means that a big spot is included.

G = 12  
S = 70  
R = 190

Reading for Oct 13.

15 observations this session.

07:30 - Session ends.



#4109M 13/14 0005-0350. 10-F/ JMB/ Pegasus  
and Spica - Echo 1-1

SS Cyg is on its way up Vindication!

0015	9.5-	0245	9.2-	RW Aur	10.9-
0030	9.5-	0305	9.2-	Z Cam	11.7-
0055	9.4-	0325	9.2-	CH 3	1420 <sup>m</sup> ✓
0120	9.3-	0345	9.2-		NGC 1395?
0150	9.3-				11.5 m.
0220	9.2-				

	240	250	300	300	320
Orig. V3ND	71-	71-	71-	71-	71-
V372	80-	80-	80-	79!!	81!!
V361	90-	90-	90-	90-	90-
LP	90-	89-	89-	89-	89-
IU	96-	96-	96-	96-	97-
MX	102-	102-	102-	102-	102-
NV	97-	98-	97-	97-	97-
KS	103-	103-	104-	104-	103-
T	104-	106-	105-	106-	107-
2	89-	89-	89-	89-	89-
AHU	117-	118-	118-	117-	117-
AN	116-	114-	114-	114-	112-
TTam	105-	108/4	104-	104-	104-

77 var = 615

4110S. 14/15/17 | 1400-1550 / F10-F / JMB / Testing sessions on parts of Little Joe-II.

4111S2. 1630-1650 / 10-F / JMB / Mira 31- / SS-2.



$G = 13$   
 $S = 90$   
 $R = 220$

\* 4112E

1810-0215 / 10-F / JMB / Inaugural  
+ first light session for Little Joe II. Pegasus.  
Spica-Echo / -

USO-I: TGB 10.0 -

RGB 6.0 -

RSUMa 10.9 -

~7:30 SS Cyg 8.3 -

0135 SS Cyg 8.6 - 0205 SS Cyg 8.6 -

CN3 Rigel 0h 10m w.

Pegasus 1h 00m w

1h 10m w.v



	0110	0120	0130	0140	0150	0200
- On: NU	71-	71-	71-	71-	71-	70-
V373	80-	80-	80-	80-	80-	80-
V361	90-	90-	90-	90-	90-	90-
LP	90-	90-	90-	89-	90-	90-
UV	97-	97-	97-	97-	96-	97-
MY	102-	102-	101-	102-	101-	102-1-
NU	<del>97</del> -	97-	97-	98-	98-	98-
KS	104-	104-	104-	104-	105-	103-
T	106-	106-	106-	107-	106-	106-
2	89-	89-	89-	89-	89-	89-
HU	117-	117	117-	117-	118-	<del>118</del>
AN	116	117-	117-	116-	117-	117-
TTar	104-	104-	104-	104-	104-	10.4-

Break from ~2130 to 2245

Testing 2250 to 0100

and of these instruments; some newly renamed:

CNI Abacus (formerly Baby Joe)

40-6- Abacus-II (" " "II")

23-6- Ceres (" Bounder)

23a-5.5- Vesta (" Nelson)

16-6- Little Joe II.

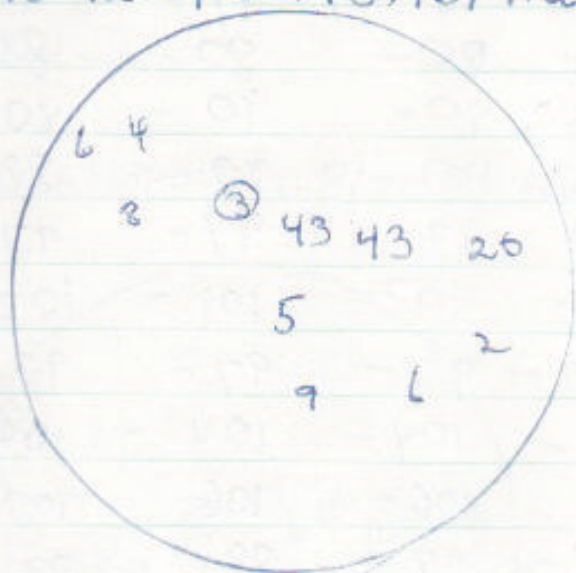
31-5.5- Mercury.

0100-0200-Orion variables

and Dome 3 0148-

84 var. = 699.

41135. 15/16/01145-1200/10-f|JMB| Mira 3|-/SS-2.



G=11  
S149  
R=259

4114EM2

(?) 16/17/1050 1835-0200? / 7-10-f/  
JMB| Spica, Echo, Rigel, Pegasus,  
Vesta|-|

VSO-I:

TAB 10.0-

SS Cyg + 8.3-

Mira 4.0-

CN-I: 2240 40.6-

236-

23a 5.5-

16.6-

31.5-

Dome 2255 3-

√ CN-3: 1h 10m Wskry w Rigel + Pgo.



I should drop a note to Walter Scott Houston about NGC 253, a beautiful edge-on spiral in Fornax:

Fornax

CN3 Catalogue: NGC 253 } S-distinct  
 268 } GL Cl  
 247 } S-faint  
           } Etus

VSO-I: 2 Ori 1.0-  
 7 Gem 3.4-

83 van der Lugt session - 782.

? NGC 584  
 small but distinct  
 starlike  
 in Etus,

NGC 779

	0040	0050	0100	0110	0120	0130
NU	71 -	71 -	71 -	71 -	71 -	71
V372	79 -	81 -	81 -	81 -	81 -	81
V361	91 -	91 -	91 -	91 -	91 -	91 -
HLP	90 -	90 -	90 -	90 -	90 -	90 -
10	96 -	97 -	97 -	97 -	97 -	97 -
MX	102 -	102 -	101 -	102 -	102 -	102
NU	97 -	98 -	97 -	98 -	98 -	98
KS	103 -	104 -	103 -	103 -	103 -	104
T	107 -	106 -	107 -	105 -	104 -	104
2	89 -	89 -	90 -	89 -	89 -	89 -
HO	117 -	116 -	117 -	117 -	117 -	117
AN	116 -	117 -	117 -	117 -	118 -	117
TTAU	1034	104	104	104	104	104







Start: 0000 - 0340<sup>Finish</sup> / 10-F / SMB / Spica-Echo /  
 - / M32, 31, 110. (M33: - beautiful. Superior to any  
 previous view.) First hr. spent setting up  
 mount for Minnowbrook.

VSO-I.

CN-3: 0" 05" ✓

85 var = 867.

4118 M4

0430-0600 / 10-F / SMB / 4 Pegasus, Rigel /

CN3. 1" 05" ✓

Jupiter.

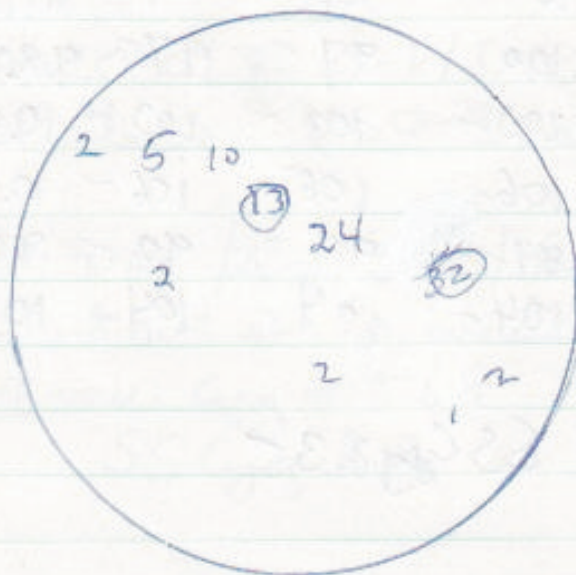
Catalogue: NGC 2775 in Cancer

3115 in Sextans.

} cf. S Pleas. VIII.

4119 S.

17/18/19 1130-1145 / 10-F / SMB / Mira 3 / - / SS 2.



G = 10

S = 923

R = 193

4120E2. 1830-2210/10-F/JMB; Vestar,  
 Pegasus/-/CN-3. 1h30m west ✓

VSO-I: SS Cyg 1900 8.3-

CN-I: 40 6

2200 23 6

23a 5

16 6

31 5

| var =  
868

4121M3. 0055-0130 | High cloud 3-6-F/JMB/Spica, Echo,  
 0100 0110 0120 0130 Pegasus/-/1.

Or: NU 71- 71- 71- 71- VSO-I:

V372 81- 80- 80- 81-

V361 94- 94- 94- 94- 45 var = 913

LP 94- 95- 95- 95-

10 97- 98- 98- 98- 4164.8

MY 101- 101- 101- 101-

NU 100- 97- 97- 98-

KS 103- 103- 103- 10.3-

T 106- 106- 106- 10.4-

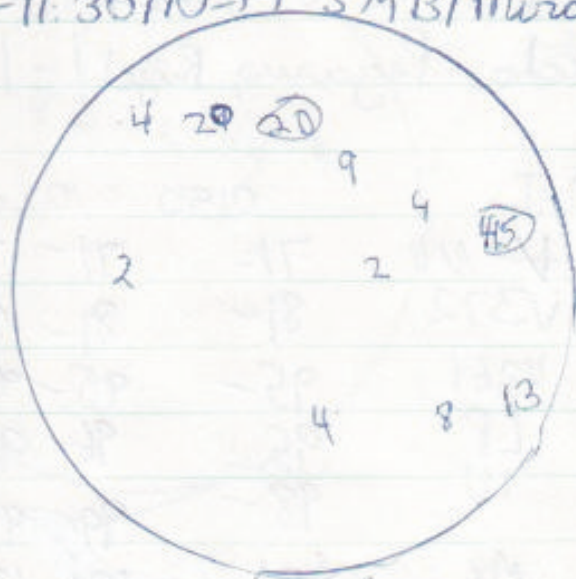
2 89- 90- 90- 9.0-

Tau: T 104- 104- 104- 10.5-

SS Cyg 8.3-



41229. 18/19/11:15-11:30/10-F/ JMB/Mira 3/-/ SS-2.



G = 11  
S = 131  
R = 241.

<sup>(20)</sup>  
 CN-3: 1<sup>h</sup> 10<sup>m</sup> W.U VSO-I CN I: 40-6  
 Cat: 23-6 23a-6  
 NGC 6539 very faint & diffuse. 31-5 40-6.  
 6712 near TM. Distinctly beautiful  
 RS oph 12.2 =  
 ↓ SS Cyg 8.3

4123E2. 1830 to 2030 / 10-F/ JMB/ Pegasus, Rigel /  
 -/ CN-3, see above. VSO-I, see above. CN-I too.

4124M3. 0050-0110 / 23-F/ JMB/ Pegasus, Rigel  
 (Sp-Echo - but not set up because of clouds) /  
 -/ VSO-I: W Cyg 6.6 6.9  
 SS Cyg 8.3

2 var = 915

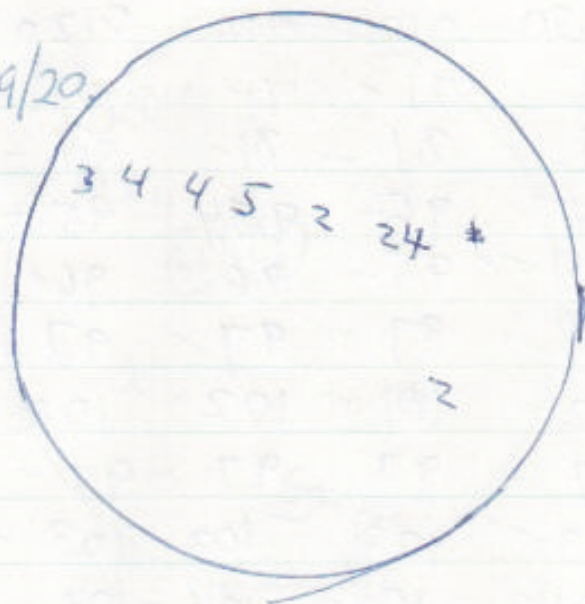
4125M H 0140-0240. / -10-f/J-M-B/ @ 5000  
 Spica-Echo, Pegasus, Rigel / - /

VSO-I:	0150	0200	0210	0220
Ori: <del>V</del> NU	71-	71-	71- ←	71- ← 0230
V372	81-	81- 80✓	81-	81-
V361	95-	95- 95-	95-	95-
LP	95-	96- 96-	96-	95-
IU	98-	99- 97-	98-	98-
MX	101-	101- 102-	102-	102-
NU	98-	98- 98-	97-	97-
KS	103-	103- 104-	103-	103✓
T	106-	107- 106-	107-	105-
2	90-	89- 90-	89-	89-
TTau	104-	104-	104-	10.4-
HU	1187-	118- 118-	118-	118-
AN	H.12.0 <sub>6</sub>	120 <sub>3</sub> -120 <sub>3</sub>	120 <sub>3</sub> -	12.0 <sub>3</sub> -

RW Aug 10.9 ✓ 65 var = 980.



4126S. 19/20.



1215-1230/3-F1  
JMB/Mira 31-1SS2.

G = 7  
S = 44  
R = 114

4127EP. 1810-1820/10-F/I-10<sup>van</sup> near Park Ave | - | - |  
CN-5TH.

4128EM3. 1835-0155 / 10-F / JMB / Riesel, Spica,  
Echo, Pegasus, Little Joe II, Mercury w/  
pomo-prism. / Vic / ~~4~~

CN-I: ~~2200~~ 2300 / ~~7~~ 40-6  
23-6

1930 SS Cyg 8.3

2300 SS Cyg 8.3

23a-5

16-6

31-65.

Dome-3

2 van + opposite page

Mercury's images now are  
very acceptable.  
Use prism always.

4166

	0050	0100	0110	0120	0130
Orion	71-	71-	71-	71-	71-
V372	81-	81-	81-	81-	81-
361	94-	95-	95	95-	94-
LP	95-	95-	96-	96-	96-
IV	96-	97-	97-	97-	97-
MX	102-	101-	102-	102-	102-
<del>KSNV</del>	97-	97-	97-	97-	97-
KS	103-	103-	103-	103-	104-
T	104-	104-	104-	104-	104-
2	89-	89-	90-	90-	89-
HU	11.8-				
AN	12.0-				
TTau	10.4-	10.4-	10.4-		10.4-
RWAur	10.9-				

$$2(\text{from last page}) + 57 = 59 \text{ var} = 1039.$$

✓ CN-3: 1<sup>h</sup> 10<sup>m</sup> West + South. w/ Rigel, Pegasus + Mercury.

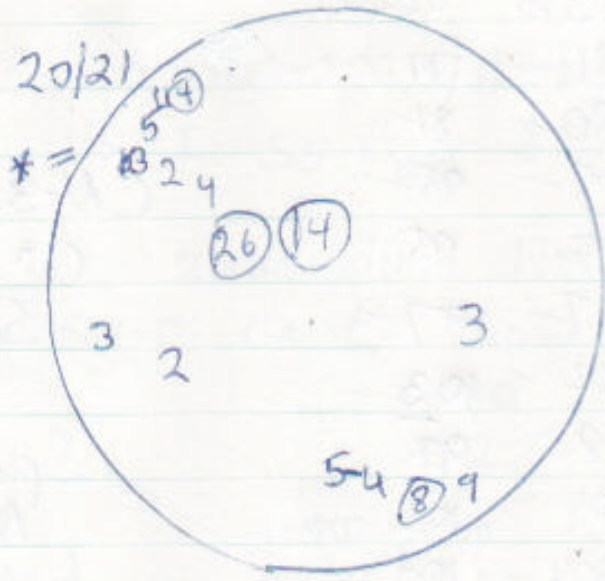
NGC 772 in aries. Distinct.

41295. 2021-1030 ~ 1045/10-F/3MB/Mira 3/Billy, Gerry/  
Kitt Peak, Sun.

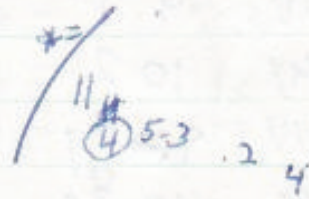


Lyte Payette - 10 79  
 RR3,  
 Granby, Canada

4130S2. 20/21



1630- 110-F/1JMB  
 Mira 31-1



G = 15  
 S = 103  
 R > 253

4131EMP 1800-1810 110-F/1JMB-1-ICNETH.

4132EM 1920-<sup>0100</sup>~~0330~~ 110+-F/on Mt Hopkins (also SMBP later)  
 8" Celestron 8" Celestron 8" Newt.  
 5" F/4 refl. 6" Dynascope 4" refl.  
 Surveyor. / TAAA + boy scouts / 4/67.7

VSO I. RS Oph 12.0% - RUMi 10.3% -  
 TAB 10.0% - gher 5.8 - 0.000  
 RGB 6.0 - xher 70 - Dome 3 -  
 XY Lyr 6.4 - SScap 7.4 -  
 TAB SScap 8.3 - ARcap 7.8 -  
 AF Cyg 7.0 - 40-6 - 3/-5.5  
 Novadul 8.9 - 23.6 -  
 23a-5.5 -  
 16-6 -

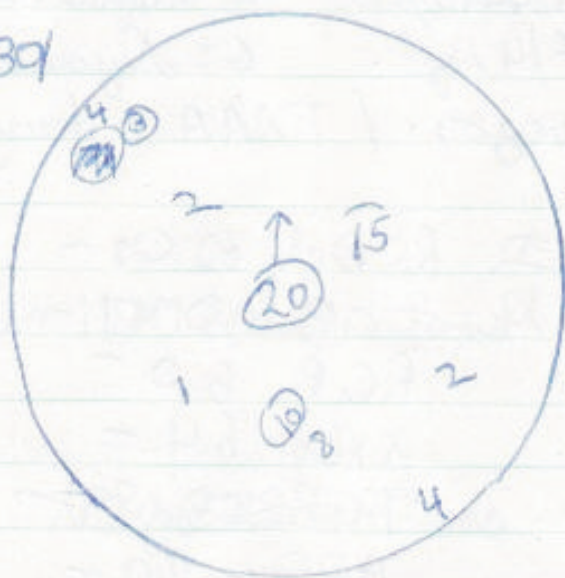
	0300	0310	0320
ORI:NU	71 -	71 -	71 -
V372	80 -	80 -	81 -
V361	94 -	95 -	95 -
LP	95 -	95 -	95 -
IV	97 -	97 -	97 -
MX	102 -	102 -	103 -
NV	97 -	98 -	97 -
KS	103 -	104 -	103 -
T	1094 -	104 -	104 -
#2	90 -	89 -	90 -

CN-3: ✓  
 0h 02m  
 Spica-Echo.  
 Spotted  
 NGC 2775  
 during search.  
 (also spotted earlier).

41326 0245-0330 / SMB / 8-4-0-F /  
 Spica-Echo / - / USO-I.

42 var = 1081

41338 21/22/1615-1639



10-F / SMB / Mira3 )  
 - / SS2.

G 10  
 S 68 69  
 R 169



4134EP2 2300-2315/10-f/3MB/Spica-Echo|-/  
VSO-I: SS Cyg: 8.7

4135EM3 2335-0115~ 110-f/Spica-Echo|-/  
VSO-I: CN-I: Dome 3- 23a 5.5-  
40 36- 16 6-  
23 6- 31 5.5

	1150	1200	1210	1220	1230	1240	1250
Ori: NU	71-	71-	71-	71-	71-	71-	71-
V372	80-	80-	80-	81-	81-	80-	81-
V361	95-	95-	95-	94-	94-	95-	94-
LPH	95-	96-	95-	95-	95-	95-	95-
U	97-	97-	97-	97-	96-	96-	95-
MX	102-	103-	103-	103-	103-	102-	102-
NV	97-	97-	97-	97-	98-	97-	97-
KS	103-	101-	103-	103-	103-	103-	103-
T	104-	104-	105-	105-	104-	104-	105-
#2.	<del>81</del> 89-	89-	89-	89-	90-	89-	90-

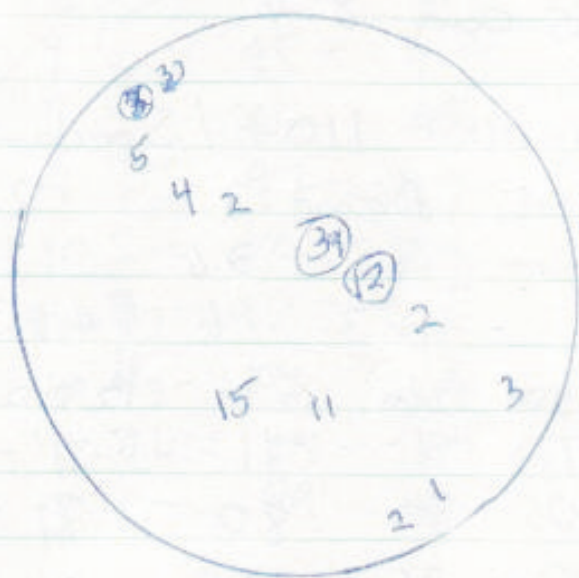
$\alpha$  Ori 1.0-

RWAvg  
10.3- 10.3-

TTan 10.5-

74 var = 11.55

4136S. 22/23/7-10-F/3MB/ Mira 31-1SS2.



G 12  
S 49  
R 219

4137E2 7 180-~~18~~2005/10-F/3MB/- Pegasus, Rigel,  
Spica - Echo (just set up) / - / CN-3:

0<sup>h</sup> 1<sup>m</sup> 00<sup>s</sup> w / Rigel  
& Pegasus

CN I Dome 3.

VSO-I: T G B: 10.0-

West.

Iran = 1156

4138E3

2030-2100/10-F/3MB/ Rigel (set up), Spica -  
Echo, Pegasus / neighbors / ~~M45~~ M45, D64,  
M45, M13.

CN-3. 0<sup>h</sup> 08<sup>m</sup> ✓



4139M4 → 0120- (some hz) 110 F/5MB/4 Rigol, Pegasus, Spica, Echo 1-1/VSOT

	0130	0140	0150	0200	0210	0220	0230	0240
Ori. no	71-	71-	71	71-	71-	72-	71-	71-
V372	80-	80-	81-	81-	81-	81-	82-	81-
V361	94-	95-	94-	95-	95-	95-	95-	95-
LP	95-	95-	94	96-	95-	95-	95-	95-
IU	98-	98-	95-	97-	96-	96-	96-	97-
MX	102-	102-	103-	102-	103-	103-	103-	103-
NU	98-	97-	*97-	97-	97-	97-	98-	97-
KS	103-	104-	104-	103-	104/	103-	104/3-	104-
T	104-	104-	104	104-	103/	103-	104/3	103-
#2	89-	89-	89-	89-	89-	89-	89-	89-
Tlan					10.1-	104±	104-	105-104

SS 89 -

RWAUG 10.8 -

CNI.

166 } 0155 -

316 } -

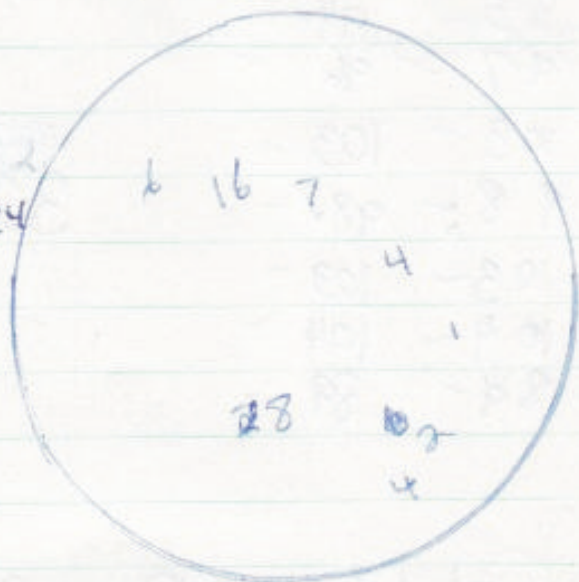
Dome 3

\* slight flickering during observation

87004 = 1243

4140S

23/24



G 8  
S 48  
R 128

#4 1130-1145

3-F/5MB/

Mira 31-

SS2.

4141E2. 1730-1800/3-F/ Vic's Traibron  
River Road / Little Joe / Vic / Moon.  
Photos of me for Star & Sky.

4142E3 1830-1845/3-F/ Vic's Traibron  
Little Joe / Vic / Moon. NGC 869, 884.

4143E4. 2315-2330/2-3-F/ JMB / Vestal - /  
CN-V: Dome-2  
CN-I: 40-3  
16-3

4144M5. 0025-0055/10-3-F/ JMB / Spica - Echo (Polaris)  
- / VSO-I:

	1230	1240	12 <sup>46</sup> <del>30</del>
NUON	71-	71-	72-
V372	81 <sup>0</sup> -	81-	80-
V361	94-	93 <sup>0</sup> -	94-
U+U	95-	95-	94-
IV	97-	97-	96-
MX	102-	103-	103-
NUKS	98-	98 <sup>0</sup> -	98 <sup>0</sup> -
KS	103 <sup>0</sup> -	103-	103-
T	104 <sup>0</sup> -	104-	104-
2	89-	89-	89-

4170.

32 van = 1275.

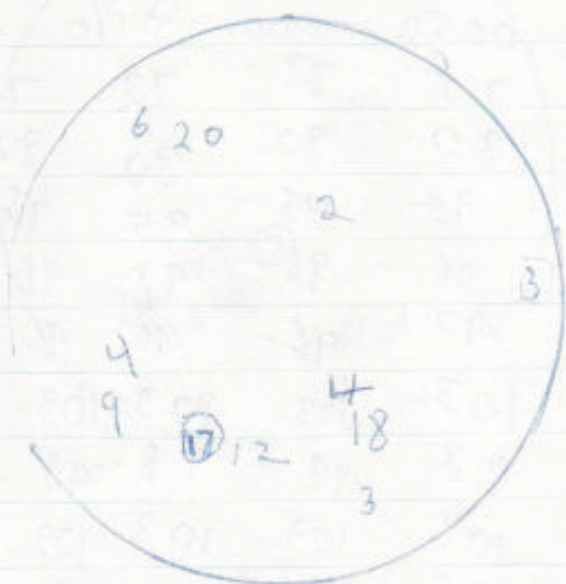
SSC 93 -

RWAUT 10.9 -

4145MP6. ~0200-~0205/9-F/ JMF / - / - / CN-S Dome 2.5 # -



41465. Oct 24/25/181155-1210/10-F/3MB/ - /Mora 3/SS2. <sup>10-79</sup>



G = 11  
S = 98  
R = 208

4147E2. Oct 24/25/1820-2010/10-F/3MB/Pegasus,  
 RY Dra 72- Rigel, Minnowbrook's tube  
 RRGB 20- a-dryin' / - / VSO-I.  
 SWGB 81 - CN-I: 40, 23, a, 16, 31  
 RSoph #12.3- -all 6<sup>th</sup>.  
 SSCyg 8.8- ✓ CN III 1<sup>n</sup> 10<sup>m</sup> W.  
 5<sup>var</sup> = 1280.

4148M3.

0030+00205/~~8~~-f10-f1JMB)  
Echo, Pogonius/-| VSO-I.

Spica,

	0040	0050	0100	0110	0120	0130	0140/50
NUON	7.2-	7.5	7.1-	7.2-	7.2-	7.2	7.2-7.2
372361	8.0-	8.0	8.0-	8.0-	8.0	8.1	8.1-8.1
361372	9.5-	9.5	9.5-	9.5-	9.5-	9.5	9.6-9.5-
LP	9.5	9.6-	9.6-	9.6-	9.6-	9.6-	9.6-9.6-
LU	9.6-	9.7-	9.6-	9.6-	9.6-	9.6-	9.6-9.6-
MY	10.3	10.3-	10.3	10.3-10.3	10.3	10.3	10.3-10.3
NV	9.8-	9.8	9.8-	9.8-9.8	9.7	9.8	9.8-9.8-
KS	10.3-	10.4	10.3-	10.3-10.3	10.3	10.3	10.3-10.3
T	10.4	10.3-	10.4	10.2-10.2	10.3	10.4	10.4
2	8.9-	9.0-	8.9-	8.9-9.0-	9.0	8.9	8.9-8.9-

RWAur 10.4

TTaur 10.4

10.4

flas 2.3:-

ZCarn 11.7

SSCyg 9.3

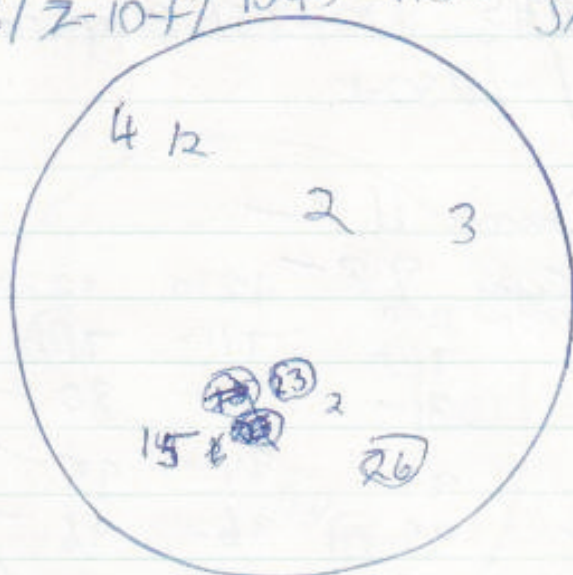
Mira 4.0

27Uat = 1367.

CN-5 Dome 3 at 0155.



4149S. 25/26/7-10-F/1045-1100 JMB/Mira 31-1/SS2,



G = 8  
S = 87  
R = 167

4150E2. 1800-1910/8<sup>9</sup>-F(moon)/JMB/F Spica-Echo  
setup, Pegasus, Rigel/-/CN-3. D<sup>h</sup> 30<sup>m</sup> W.V  
w/R + Peg.

VSO-I: RAB 6.0-

TAB 10.0-

1900 SS Cey 9.9- 4var = 1371

RS Opt 12.3-

Munnoubrook's tube successfully  
set up on mount.

4151E3 1935-1955/8<sup>9</sup>-F/JMB/Vesta + other set-up  
telescopes/-/CN-I: 40, 23, 31, 16 - all 6<sup>th</sup>.

Dome 2.5-

VSO Lyr RLyr } One var = 1372

4.7-

4152M4 2330-0115 110-f/JMB/Spica, Echo,  
Pegasus/-/VSO-I:

LCam 11.7-

	11 40	SS Cyg	9.8-	1210	1220	1230
OM-NO	71-	71-	71-	71-	71-	71-
V372	80-	81-	81-	80-	80-	81-
V361	94-	94-	94-	94-	95-	96-
LP#	95-	95-	95-	96-	96-	96-
10	97-	97-	97-	98-	97-	98-
MX	103-	103-	103-	103-	103-	103
NV	97-	97-	97-	97-	97-	97-
KS	103-	103-	103-	103-	103-	104
I	103-	103-	103-	103-	103-	103-
2	89-	89-	89-	89-	89-	90-
T Tauri	10.4-	10.4-	10.4-	10.4-	10.4-	10.4-
RWAur	10.3-	10.4-	10.4-	10.3-	10.3-	10.3-

Dome 0100 3-

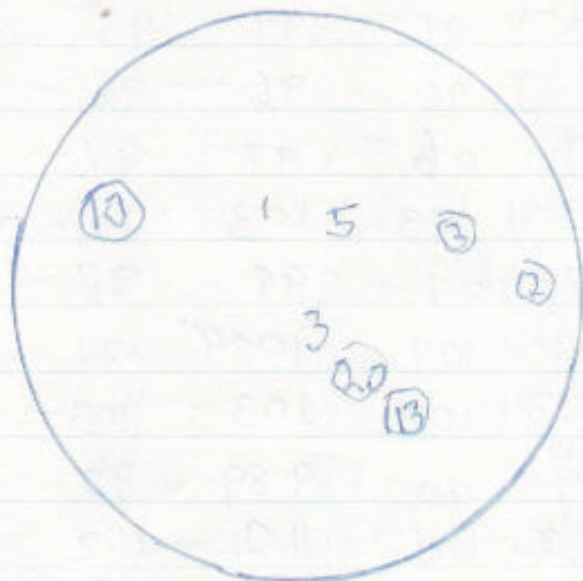
72 var = 1444

CN-3: 0h 30m S. with Pegasus. ✓



26/27

4153S. 1000-1015/10-F/3MB Mira 3/-/SS2.



G 8  
S 56757  
R 137

\*4154AN

1800-0600 / 10-F/3MB/Syncorn II, Rigel/Spica,  
Part I: 1800 to 1950. Echo, Pegasus, Vesta.  
CN-III: (0<sup>h</sup> 30<sup>m</sup> W.) ✓ M19 cat. w/Rigel.  
VSO-I: TGB 10.0 -  
RGB 6.0 -

Part II: 2035-2100<sup>f. Dome 3</sup>  
VSO-I: 4023a1631<sup>all 6</sup>  
2050. SSCyg 10.2 -  
Moon.  
Part III: 2145-2250.  
CN-III: (0<sup>h</sup> 30<sup>m</sup>)  
✓ SW.

Part IV: 2350-0600

CNS 04303

3 meteors - Orionids  
2 meteors - sporadic

2

4154AN

	1200	1210	1220	1230	1240	1250	1300
ORI: NL	72-	71-	72-	71-	72-	72-	72-
V372	80-	81-	81-	81-	80-	81-	81-
V361	96-	94-	95-	94-	95-	94-	93-
LP	96-	96-	96-	96-	96-	96-	96-
IU	97-	97-	96-	97-	97-	97-	97-
MX	103-	103-	103-	103-	103-	102-	102-
IV	98-	97-	97-	98-	97-	97-	97-
KS	103-	103-	104-	1034-	104-	104-	104-
T	103-	103-	103-	103-	103-	103-	103-
#2	89-	89-	90-	89-	90-	89-	90-
RW Aur	11.2-	11.2-	11.1-	11.2-	11.2-	11.2-	11.2-
T Tauri	10.95	10.5-	10.5-	10.6-	10.5-	10.5-	10.5-

(with Synom)

CB 66-  
W 73-  
RX Lep 62-

87 var ± 3 in early parts of this session = 90.

CN3 (1<sup>h</sup>00<sup>m</sup> E) ✓

NGC 2683 faint but distinct edge on.

(0<sup>h</sup>40<sup>m</sup> E) - predecim ✓

Total this session 02<sup>h</sup>40<sup>m</sup> check ✓



\*4154 AM.

1500	1510	1520	1530	1540	1550	1600	1610
71-	72-	72-	72-	71-	71-	71-	72 <sup>1640</sup> 71-
80-	81-	80-	79-	80-	80-	81-	82 <sup>85</sup> 80
94-	95-	94-	95-	95-	95-	94-	95 <sup>95</sup> - <del>95</del>
95-	96-	96-	96-	96-	96-	96-	96-96
97-	97-	97-	97-	97-	97-	97-	98-98
103-	103-	103-	103-	103-	103-	102	102 <sup>103</sup>
97-	97-	98-	98-	<del>98</del> -	98-	98-	98 <sup>97</sup> 97
104-	104-	104-	104	104	104	104-	104 <sup>104</sup>
104-	103-	104-	105-	103-	103-	103-	103 <sup>104</sup> -103
90-	90-	89-	89-	89-	89-	89-	89 <sup>89</sup> -89
11.1-	11.0-	10.9-	10.8-	10.8-	10.9-	10.8-	10.8-
10.5	10.5	10.4-	10.4-	10.4-	10.4-	10.4-	10.4 <sup>5</sup>

HU 11.8-

AM 12.1:-

Z Cam 11.7-

U Gem 14.1-

X Leo 14.1-

R Leo 6.1-

102 var

+90

192 this session.

+10 at 1640

202 var this session = 1646

+6

208

VWUM<sub>100</sub> 5-[1652]

(2 is)

= (4 this month)

RYUMa 73-

STUMa 74-

VCVn 76-

YCVn 60-

TUCn 61-

4155S.



27/28/1300-1315 / 210-F /  
JMB/Mira 31-1552,

G 10  
S 57  
R 157

4156E2.

2215-2250 / 9-F (moon) / JMB / Ceres / - /  
CN-I: 40, 23, 23a, 16, 31 all 6. Done 2/8.

4157M3.

0015-0200 / 10-F / JMB / Syncom II / <sup>pathma</sup> / <sup>Area 3</sup> / CN5-3

VSO-I:	0030	0040	0050	0100	0110	0120	0130
NU Ori	71-	71-	71-	71-	71-	71-	71-
V372	81-	80-	80-	80	80-	81-	80
V361	95-	95-	95-	95-	95-	95-	95-
LP	96-	96-	96-	96-	96-	96-	96-
IU	97-	97-	97-	97-	97-	97-	97-
MX	1032	102-	102-	102-	102-	102-	102-
KSNV	97-	97-	97-	97-	99-	100-	101-
KS	104-	104-	103-	103-	103-	103-	103-
T	104-	104-	105-	105-	106-	106-	106-
2	89-	90-	90-	90-	89-	90-	90-

SS Cyg 10.8-

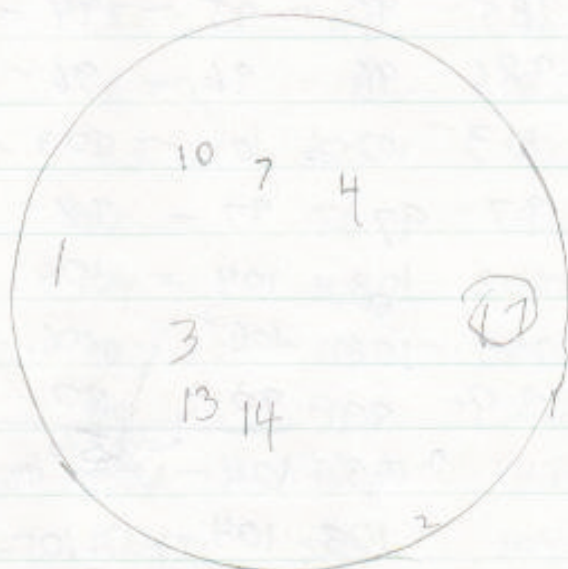
71 var = 1723

↑ same



10-79

4158S. 28/29. 1320-1335 / 10-f / JMB / Mira Ceti 3 / - /  
SS.2:



G 8  
S 69  
R = 149

see 416752.

\*4159E3

1815-1915 19-f (moon) / JMB /  
Pegasus [Spica-Echo (set up)], Vesta

CN-3: 0h 30m W. ✓

CN-I: 40 16 Done 2.5.

23 3/  
23a all 6 ✓

VSO-I: ~~23~~ SS Cys 10.6 ✓

Iran = 1724

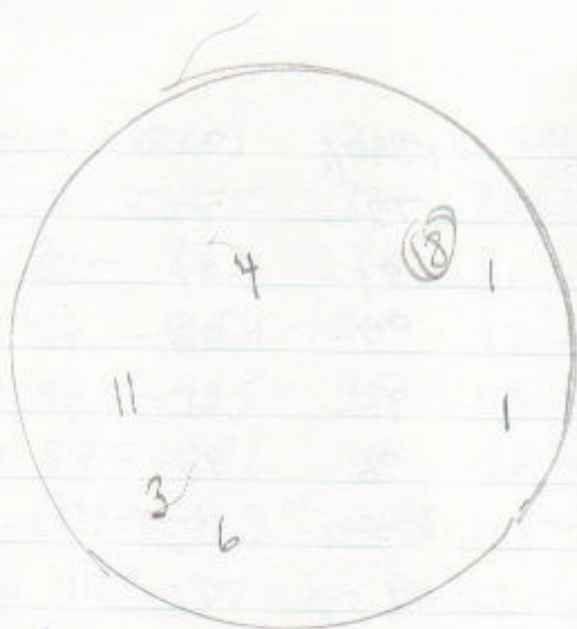




1312/5	1320/5	1330/5	1340/5	1350	1400	1410.
72 -	72 -	71 -	72 -	72 -	72 -	72 -
80 -	81 -	80 -	81 -	81 -	80 -	81 -
94 -	93 -	94 -	94 -	93 -	94 -	93 -
96 -	95 -	95 -	95 -	95 -	95 -	95 -
97 -	96 -	96 -	96 -	95 -	97 -	96 -
102 -	103 -	103 -	103 -	103 -	103 -	103 -
97 -	97 -	97 -	96 -	96 -	97 -	97 -
104 -	105 -	104 -	105 -	105 -	104 -	104 -
105 -	107 -	107 -	107 -	106 -	105 -	106 -
90 -	90 -	89 -	90 -	90 -	89 -	90 -
104 -	105 -	10,81 -	10,8 -	10,8 -	10,8 -	
104 -	104 -	10,4 -	10,4 -	10,4 -	10,4 -	
89 -	89 -	89 -	89 -	89 -	89 -	
12,7 -	12,6 -	12,7 -	12,7 -	12,7 -	12,4 -	
11,9 -	11,9 -	11,8 -	11,9 -	11,8 -	11,8 -	
12,6 -	12,7 -	12,7 -	12,6 -	12,7 -	12,7 -	
13,1 -	13,1 -	13,0 -	13,0 -	13,0 -	13,1 -	
11,9 -	12,0 -	11,9 -	11,9 -	11,8 -	12,0 -	
10,8 -	10,9 -	10,9 -	10,9 -	10,9 -	10,9 -	
			N p om	12,6 -	12,7 -	
				(at 1350)	(1405)	

255 var. = 1979.

4160S



G	7
S	34
R	104

11720-11735/

Oct 29/30/6 (dusty) - F / near JMB / Mira 3 / - / SS 2.

4161E2. 1820-2000 / 3-2-F / JMB, JMF + van /  
Rigel. Antares

CN 3. 0<sup>h</sup> 10<sup>m</sup> W. ✓

CN 1. 40

23

23<sub>9</sub>

16

31

} all 6. ✓

4162M3 0100-0315. / - F / JMF, SMB / <sup>Rigel</sup>Antares / - /

0110. SScyg 10.5

0115 Dome 2

van = 1980.



with Centares tonight.

H	0120	0130	0140
NU Ori	72-	72-	72-
V362	81-	81-	81-
V361	93-	93-	93-
LP	95-	95-	95-
IU	96-	98-	97-
MX	103-	103-	103-
KSNV	98-	98-	98-
KS	103-	103-	103-
I	106-	106-	106-
2	90-	89-	89-

37 var = 2017

#

var.

Var No. 6	109-	109-	109-
V351	89-	89-	89-

CN3 0.05<sup>m</sup>

Mira 39-

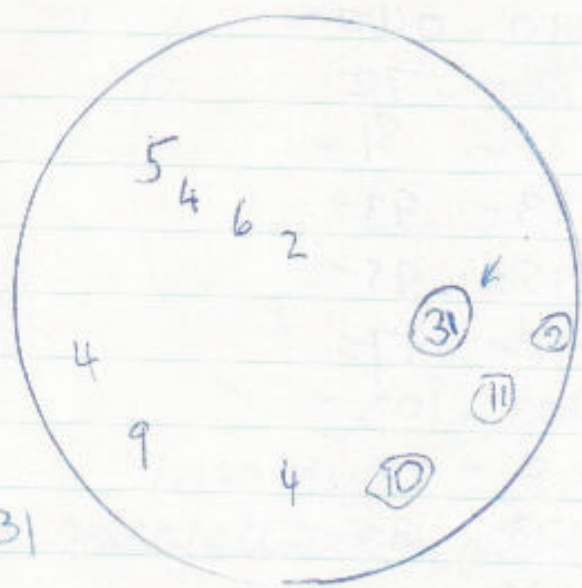
NGC 1385 nearby but not seen

x ° 13 98.63.37 - spotted also.  
- 26 25

3<sup>h</sup> 30<sup>m</sup>

-25°

Probably NGC 1360. Bright, first seen in  
A. van Clark. Star of 8<sup>th</sup> mag, bright,  
large neb - extended N-S. (Dreyer desc.)  
Not in Skalnate Pleso.



check again tomorrow.

G - 11  
RS - 88  
R - 198.

4163S. 1130-1145/9<sup>10</sup>-F/JMB/Mira 31-1/SS 2.

4164 E2 21945-2000/7-f(moon)/Flandrau  
Planetarium Observatory/16" Group 128/other/  
Moon.

4165 E3. 2100-2245/7-f(moon)/Steward Observat-  
ory/21" and a 5" James refractor/Greg,  
Dave + others/ Moon,  $\beta$  Cyg M15  
→ Sporadic Meteor SS Cyg: 11.0: = 1 var =  
-3 S to N, ~90° coverage 2018  
lasted ~10sec

4166 EP4 ~2310-~2315/7F/ near Haughton Rd + I-10/  
-1 Pollux + Castor rising. Big dipper below  
horizon.



[416752 Should appear after 4159S. 28/29/1500--1520/  
 Flandrau Planetarium / 10-F / Solar image on  
 television, through upstairs telescope, + large  
 F.I. solar spectral telescope / Fuzzy sunspot  
 groups, but beautiful solar spectrum  
 projected on a screen.]

4168M- again, 30/31/0050+00210/8-F (moon) / Spica-  
 Echo, Vesta / - /

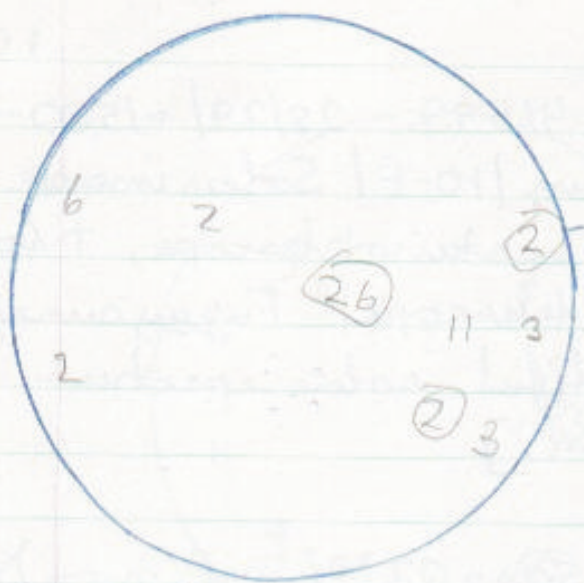
80C VSO-I: CNI Deme / meteor

SS Cyg 11.1 - CNI 16.6 / 31.6 ✓

	0100	0110	0120	0130	0140	0150
NU Ori	71 -	71 -	71 -	71 -	71 -	71 -
V367 <sup>2</sup> Ori	81 -	81 -	81 -	82 -	81 -	81 -
V361 Ori	93 -	94 -	93 -	93 -	93 -	94 -
LP Ori	95 -	95 -	94 -	94 -	95 -	94 -
IU Ori	97 -	97 -	97 -	96 -	97 -	96 -
MX Ori	103 -	102 -	103 -	102 -	103 -	103 -
NV Ori	97 -	97 -	97 -	97 -	98 -	97 -
KS Ori	103 -	103 -	103 -	104 -	103 -	104 -
T Ori	104 -	104 -	103 -	103 -	103 -	103 -
No 2 Ori	89 -	90 -	89 -	90 -	89 -	90 -
No 6 Ori	109 -	108 -	108 -	108 -	109 -	109 -
NPO Ori	127 -	127 -	127 -	127 -	127 -	127 -
V351 Ori	89 -	89 -	89 -	90 -	90 -	92 -
HU Ori	118 -	118 -	118 -	119 -	119 -	118 -
AN Ori	126 -	124 -	12.5 -	12.5 -	123 -	124 -
AH V360 Ori					129 -	130 -

95 variables  
 = 2113





$C = 9$   
 $S = 57$   
 $R = 147$

4169S. 31/22/1000-1015/10-f/JMB/Mira 3/-/SS2.

4170E2. 1800-1900/7-f(moon)/JMB/Pegasus,  
 Rigel, (Spica-Echo), Vestal -/✓  
 CN-III: 0<sup>h</sup>30<sup>m</sup> A West. ✓  
 I: 40 23a 3/  
 23 16 all b ✓

4171 EM3. 2355 to 1310 ~~10~~ 7-f(moon)/JMB/  
 Spica-Echo, Pegasus, Rigel -/  
 VSO-I: see next page.  
 CNV Dome 3. +350, 0100.



	1200	1205	1210	1215	1220	1225	1230	1235	1240	1245	1250
NU Ori	71 -		71 -		71 -		71 -		71 -	71 -	71 <sup>12.5</sup>
V372	81 -		81 -		81 -		81 -		81 -	81 -	
361	93 -		92 -		92 -		92 -		94 -	93 -	
HLP	94 -		94 -		94 -		94 -		94 -	95 -	
10	96 -		96 -		96 -		96 -		97 -	96 -	
MX	103 -		103 -		103 -		103 -		103 -	103 -	
NV	98 -		98 -		98 -		98 -		98 -	97 -	
KS	104 -		103 -		103 -		103 -		103 <sup>43</sup> -	104 -	
T	103 -		103 -		103 -		103 -		103 -	103 -	
2	90 -		90 -		90 -		90 -		90 -	90 -	
HU	119 -		119 -		118 →		119 -		119 -	119 -	
AM	123 -		123 -		12.6		12.5 -		12.5 -	12.5 -	12.4
NP	124 -		124 -		12.7 →		12.5 →		124 -	12.7 -	124
No6	10.9 -		10.9 -		10.8 →		10.8 -		10.8 -	10.8 -	10.9
RWAur	109 -		108 -		108 -		108 -		108 -	108 -	108 <sup>107</sup>
T Tau	104 -		105 -		104 -		104 -		104 -	10.5 <sup>104</sup>	104
V351 Ori	89 -		92 -		89 -		89 -		89 -	91 -	89
SS Cygni	195 -										

103 var = 2216 this month

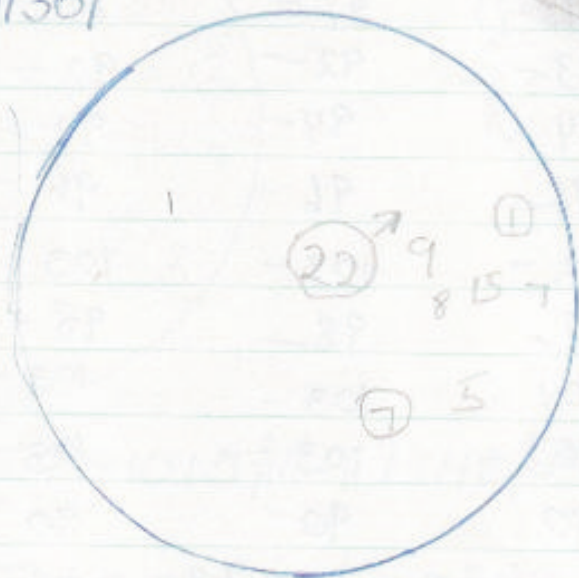
2 Ori 1.3 -

7 Gem 3.2 -

2 more = 2218

NOVEMBER:

41725. (18350T) 1/2/1115-1130/



G	9
S	75
R	165

10-f/5MB/Mira 3/-/SS 2

41783 SEP 2 2100-2110/7-f/Flandrau  
Planetarium (16-inch) / others / general.

4174 MB 0005-1320 18-f(moon)/JMB/ Spicat  
Echo 1-18 VSO-I.

See next page



10<sup>th</sup> Ikat Bob # 104 505 Days R... K7M3R6 11179  
 15<sup>th</sup> - 22<sup>nd</sup> of March. 1-613-389-4119

417413 (concl'd)

	1220	1230	1240	1250	1300	1310
NU Ori	71-	71-	72-	72-	72-	72-
V372	81-	81-	81-	82-	81-	81-
361	93-	92-	92-	92-	92-	92-
LP	95-	95-	95-	94-	94-	94-
IU	97-	96-	97-	96-	97-	97-
MX	103-	103-	103-	103-	103-	103-
WV	99-	98-	100-	100-	98-	98-
KS	103-	103-	103-	104-	104-	103-
T	104-	104-	104-	103-	104-	104-
2	90-	90-	90-	90-	90-	90-
HU	118-	120-	119- 120-	119-	119-	119-120-
6	109-	109-	109-	109-	109-	110-109-
V351	89-	89-	89-	89-	88-	88-

SS Cyg

11.7-

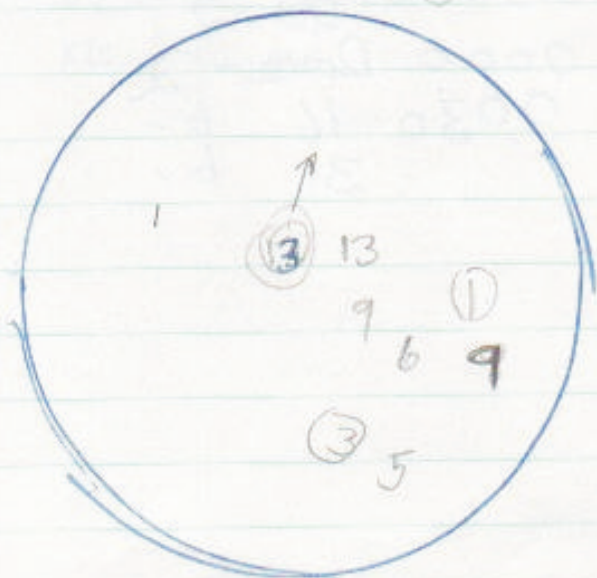
RWAur  
T Tau

11.1-  
16.4-



81 var

4175S.



2/3/7 ≈ 1600-1615/10-f)  
JMB/Mira 31-1/SS2.

G 9  
S 60  
R 150



4176 EM2. 2325-0300 / 8-F (moon) / ~~JA~~ Van JM; South on  
 Houghton Rapid, until 0100, then JMF (JMB) / Apollo,  
 abacus III - VSO - I:

	01105	0125	0135	0145	0225	0235	0245
Ori:ND	7 2 -	73 -	71 -	72 -	72 -	72	72
V372	8 1 -	81 -	81 -	82 -	81 -	81 -	81 -
V361	9 3 -	93 -	92 -	92 -	92 -	93 -	91 -
LP	9 4 -	94 -	94 -	94 -	94 -	94 -	94
10	9 7 -	97 -	97 -	97 -	96 -	97	97 -
MX	10 2 -	103 -	103 -	103 -	103 -	103	102 -
NU	16 6 -	100 -	101 -	100 -	100 -	100	100 -
KS	10 3 -	102 -	102 -	102 -	103 -	103	102 -
T	10 4 -	104 -	104 -	104 -	104 -	105	104
2	9 0 -	90 -	90 -	90 -	90 -	90	90
V351 ORI		89 -	89 -	90 -	89 -	90	90
TTau		104 -				<u>80 var = 161</u>	
RWAur		10.9 -					

SS cysg 11.6%

at 0130

2 Ori 1, 2 at 0240

earlier, at 2330: 40 - 4 -

23 - 2 -

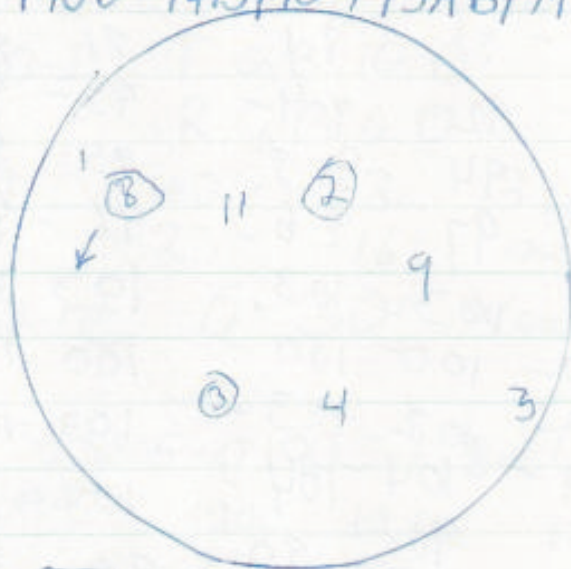
CNE, V: 0000 Dome - 2

0030 16 6 -

31 6 -



4177S. 3/4 1400-1415/10-F/JMB/Mira 3/-/SS2.



G = 8  
S = 41  
R = 121



4178E2

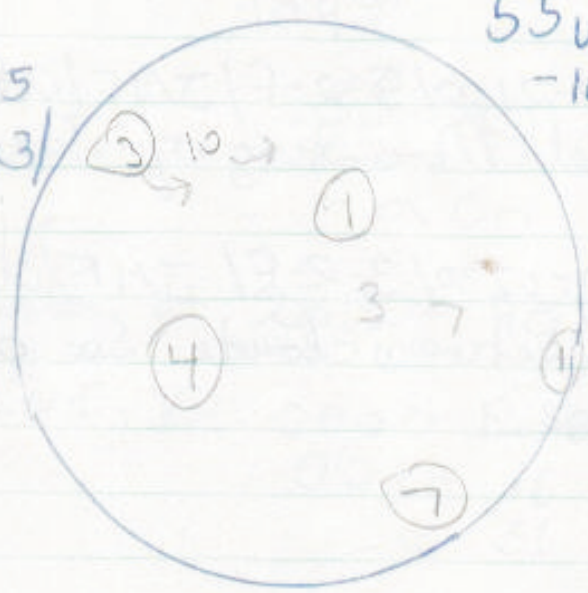
2040-2100/5-2-F/JMF/alouette/-/  
Moon. Deneb. Mounting of Jarmac Obs. Sign.

4179M3

0130-0230/3-2-F/JMF/apollo 1-/  
VSO-I between clouds. See  
next page.

	0135	0145	0155	0203	0213
NUOM	71 <sup>2</sup>	72	72	72	72
V372	81	81	81	81	81
V361	92	92	94	93	92
LP	94	94	95	95	94
10	96	97	96	96	97
MX	103	103	103	103	102
KGNU	100	100	100	100	100
.KS	103	102	103	103	103
T	104	104	104	104	103
2	90	90	90	90	90
V351	90	90	90	<del>90</del> 89	90

4180S. 4/5/1615  
Mura3/



55 van = 216  
-1635/10-F/5MB/  
-1SS2:  
G: 8  
S: 36  
R: 116



011/70

418/E2.

1810-1900 / 8-f(moon) / JMB / <sup>Vesta</sup> Rigel / - /

VSO-I: TAB 10.0

RAB 6.0

CN-I: 40 - 23a 31  
23 16 all 6 ✓

CN-III: 0h 30m West with Rigel ✓

418/E2

2355-0100 / 8-f(moon) / JMB / Apollo / /

VSO-I. 1200 1210 1220 1230 1240 1250

NUOni 72 - ~~73~~ 73 - 72 - 72 - 72 - 72

V372 81 - ~~8~~ 82 - 82 - 82 - 81 - 80

V361 92 - ~~83~~ 93 - 94 - 93 - 93 - 92

HLP 94 - 94 - 94 - 94 - 94 - 94

IU 96 - 97 - 96 - 97 - 96 - 97 -

MX 103 - 103 - 103 - 103 - 103 - 102

NV 101 - 100 - 100 - 100 - 101 - 101 -

KS 103 :- 103 :- 103 - 103 - 103 - 103

T 104 :- 105 :- 103 - 104 - 104 - 104 -

2 90 - 90 - 90 - 90 - 90 - 90 -

V351 90 - 90 - 91 - 90 - 90 - 90 -

SS Cyg 11.7

0030

Dome

67 var = 283

2

SUCCESSFUL OCCULTATION  
OF ALDEBARAN

011/79

\*4186E4

2030 to 2245. (8<sup>3</sup>-F(moon) / JMB /

Shirby Applegate's 110 camera, Vic's tripod, Rigel, Betel-  
geuse / Shirby, later / Occ'n OF ALDEBARAN:

INGRESS

UT signal:           h       m

Stopwatch:           h       m       .

Sub to TIME

Saw ingress but too vague to  
time.

missed  
limb of  
moon too  
bright

EGRESS.

UT Signal:   5<sup>h</sup> 12<sup>m</sup> 00<sup>s</sup>.0

Stopwatch   0<sup>h</sup> 0<sup>m</sup> 15<sup>s</sup>.0

Subtract to  
TIME:

5<sup>h</sup> 11<sup>m</sup> 60<sup>s</sup>

-           15<sup>s</sup>.0

5<sup>h</sup> 11<sup>m</sup> 45<sup>s</sup>.0

= 5<sup>h</sup> 11<sup>m</sup> 45.0 UT

= 22<sup>h</sup> 11<sup>m</sup> 45.0<sup>s</sup> GMT.

~20 photos, ~15 before ingress,  
5 after egress.

Actually saw  $\alpha$  Tau pop out!!!!  
Occ'n seen through Betelgeuse  
Photographed through Rigel



4187E5

2330-2335<sup>5</sup>/8-3-f/JMB(F)/Bekelgense/Shirley/ M42. Moon w/  $\alpha$  Tau, sep  $\sim 1/3^\circ$ .

		0050	0100	0110	0120	0130	0140
4188MB	NUOr	72-	72-	72-	72-	72-	71-
0045-0145/	V372	81-	81-	81-	81-	81-	82-
8-f(moon)/	V361	94-	93-	93-	93-	92-	92-
Apollo 11/	HLLP	95-	94-	93-	93-	93-	93-
VSO-I:	L10	97-	96-	97-	96-	97-	96-
CN-II: $\downarrow$	MX	103-	103-	102-	102-	103-	103-
	NV	101-	101-	101-	100-	100-	100-
	KS	103-	104-	103-	103-	103-	103-
	1	105-	104-	104-	104-	104-	104-
	2	90-	90-	90-	89-	89-	89-
	V351	89-	90-	90-	91-	91-	90-

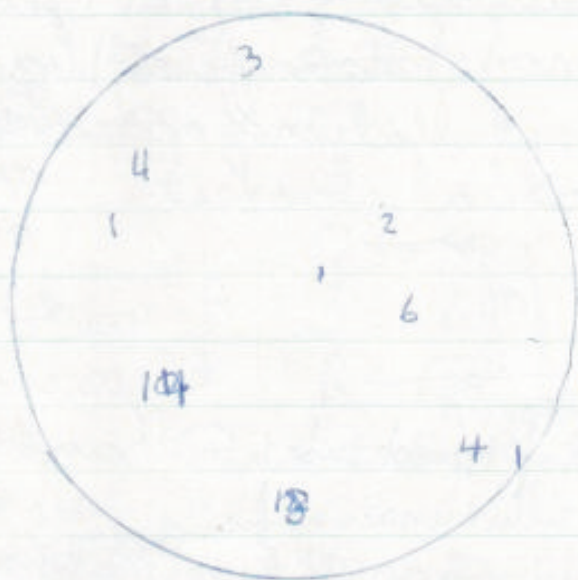
Mira 3.9

0125 CAS Dome 2

28  
3  
6 Tvar = 350

4189S.

6/7/1120-1145 12-f/JMB/Mira 3/-/552

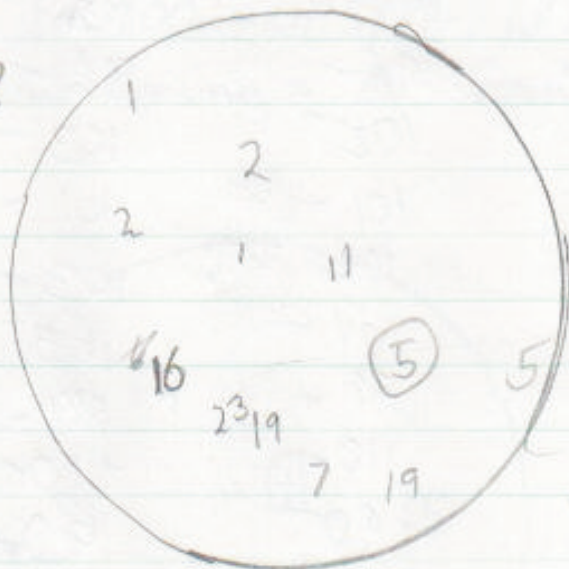


G 10  
S 54  
R 154

The night of 6/7 was cloudy. AFTER 51 clear nights!  
4190EP2 2140-2150/1-f/I-10 near Wilmet 1-1/1 moon  
dimly visible through clouds.

4191S.

7/8



2112 1120-1140/3-2-f/  
JMB/Mira 3/-/552.

G=12  
S=111  
R=231



#4192EM02 2300-0310 / 2-3-2-8-f / 3MB/

~~Miss~~ Peoples/Vic/

→ — Minnowbrook first light — ←  
Installation of optics  
by actual star test



A - empty tube

B - mirror

Optics placed along guide tube. C - hand held second-

My own idea - silly & "unscientific" - but it worked!!!

Alignment on Blazis

VSO-I:	0240	0250	0300
NO	72 -	72 -	72 -
372P	82 -	81 -	82 -
361	90 -	92 -	92 -
LP	95 -	94 -	94 -
1U	96 -	96 -	96 -
My	103 -	102 -	103 -
NV	101 -	101 -	101 -
KS	103 -	103 -	103 -
T	104 -	104 -	103 -
2	89 -	89 -	89 -
6	110 -	110 -	110 -
V 351	90 -	90 -	90 -

370  
36 var =

386

Seeing = G

48 min  
83 max temps °F

Star Party scheduled on Nov. 17 1979  
Siguero West.

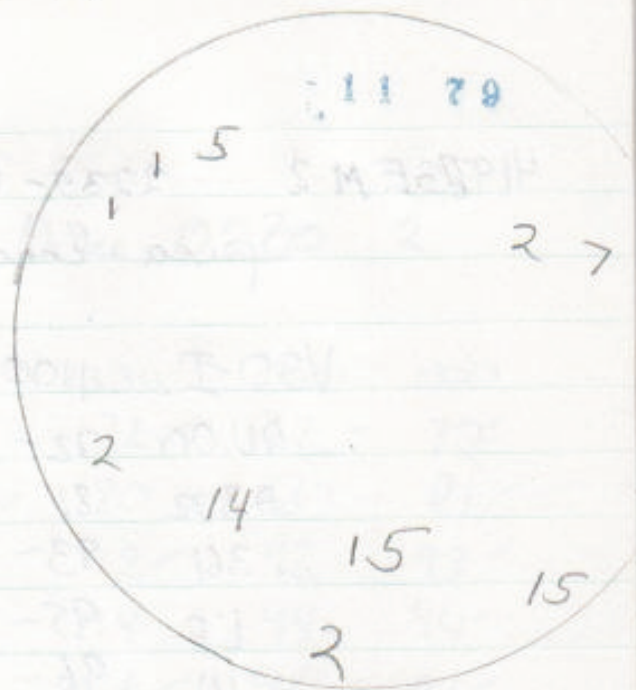
41939. 8/9/1230-1245/3-F-after  
reim / Planimo Financiel  
Plaza / Jarnac II / - /  
~~GN-5~~ SS-2.

G = 10

S = 64

R = 164

Conditions F-P.

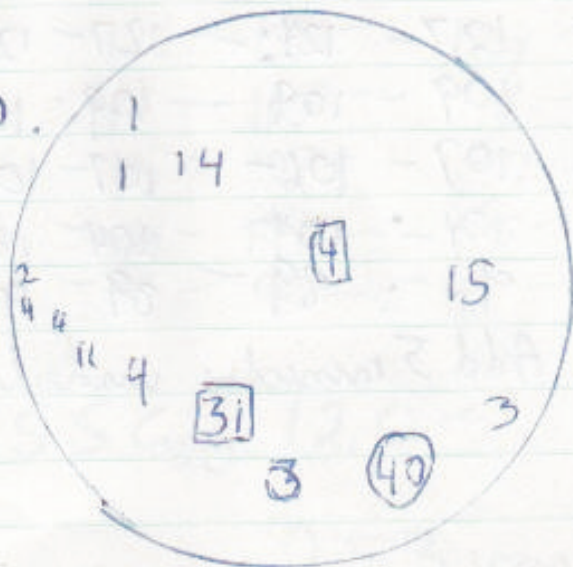


4194E2. 8/9/1815-1900/3-F/JAGates Past West/  
Jarnac II / - / CN-III  
0:30m West ✓

4195M3 ~0100-~0115/2-F/JMB/Minnowbrook/-/  
Polaris Seeing = B. Good-fair. 48 - min  
59 - Max

4196S. 9/10.

9/10.



1200-1215/~~17~~<sup>3</sup>-F/SMB/  
Mira Eta 3/-/SS2.

G 14

S 137.


R 277



4197 EM 2 2235-0225 / 9-fm / JMB / Munnowbrook,  
 Spica-Echo, Pegasus-1

VSO-I:	1100	1140	1150	1200	1210	1220	1230
NU Om	72-	74-	71-	70-	71-	71-	71-
A372	81-	82-	79-	81-	79-	80-	79-
361	93-	94-	94-	94-	94-	92-	93-
LP	95-	95-	95-	95-	95-	95-	95-
WU	96-	96-	96-	96-	96-	96-	97-
MX	103-	103-	103-	103-	103-	103-	103-
NU	98-	99-	99-	98-	98-	98-	99-
KS	104-	103-	103-	103-	102-	103-	103-
T	103-	102-	103-	102-	102-	102-	103-
# 2	<u>89-</u>	<u>89-</u>	<u>89-</u>	<u>89-</u>	<u>89-</u>	<u>89-</u>	<u>90-</u>
HU	118-	118-	119-	120-	118-	118-	119-
AN	123-	123-	123-	126-	125-	124-	123-
AH	13.4-						
V360	130-	<del>127</del>	<del>127</del>				
NP		12.7-	124.3-	127-	126-	124-	124-
#6		109-	109-	109-	108-	109-	108-
RW Aur		107-	106-	107-	107-	106-	106-
TTau		104-	104-	104-	104-	104-	104-
V35 Ori		90-	89-	89-	91-	90-	90-

Add 5 minutes under line


 • Jupiter }  
 • Mars } with Echo



# Seeing-fair

4 11 78

CN-I

1050 40 6 - 16 6 -  
23 56 - 31 6

Dome 0200 2

1240	1250	1300	1310	1320	1330	1340	1350
72	<del>72</del> 72	72	72	71	72	72	72
80	80	80	80	79	80	80	81
84	83	83	83	82	82	82	83
85	84	84	84	84	84	84	84
96	96	96	96	97	96	96	96
103	103	103	103	103	103	103	103
<del>100</del>	100	100	100	98	97	97	98
103	103	103	103	103	104	103	103
103	102	101	103	102	103	102	101
89	<del>89</del> 89	89	89	→ <u>9.12</u>	90	90	90
119	11.9	119	119	120	119	119	119
123	12.3	12.2	123	123	122	123	123

127	123	126	126	124	126	126	126
108	109	111	110	111	112	112	111
105	107	107	107	107	107	107	<del>105</del> 102
104	105	104	104	105	104	105	105
90	90	91	90	91	90	90	91

SS Cysg 12.0-

253 van = 639 this month.

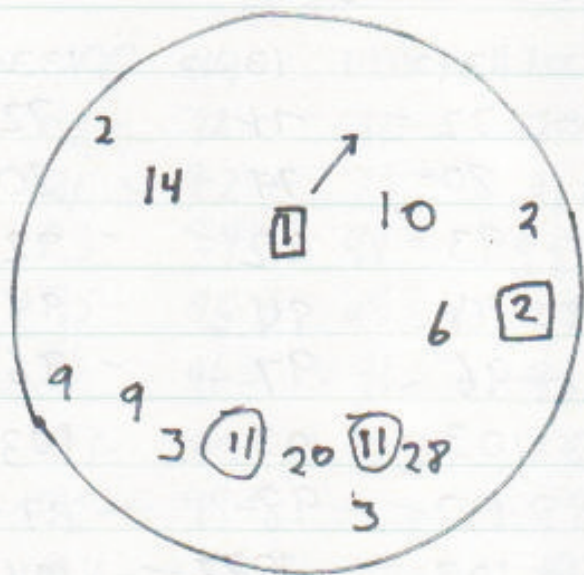


41985. 1700-1730. 19-F / JMB



Mira 3 / Viel  
SS2.

10/11



G 15

S 131

R 281

4199 E2 1815- 2030 / 8-10-f / JMB / Mira 3, Rigel, Mnk, Pegusus, Spica - Echo / Viel

40  
23  
23a  
16  
31

} all 6 ✓

✓ CN 3 01<sup>n</sup> 00<sup>m</sup> W.

< NI.

Test for N-Shine  
for Wilson Mount

2015-2 Done using Rigel to  
sight blazis





Muvia 3. Rigel.

Pegasus

Spica-Echa Minnowbrk

11 79

4200M3

0010 - 0135

110-9

-fm/SMB/

	VSO-I	0020	0030	0040	0050	0100	0110	0120			
NU Ori	72	-	71	-	71	-	72	-	72	-	72
V372	98	-	80	-	80	-	79	-	80	-	80
361	94	-	92	-	92	-	92	-	92	-	92
LP	95	-	93	-	92	-	94	-	94	-	93
10	95	-	97	-	96	-	96	-	96	-	97
MX	103	-	103	-	103	-	103	-	102	-	103
NU	101	-	101	-	49	-	97	-	98	-	97
KS	109	-	103	-	103	-	103	-	104	-	103
T	103	-	103	-	103	-	102	-	102	-	101
#2	108	-	90	-	90	-	89	-	89	-	89
HU	119	-	119	-	119	-	119	-	119	-	119
AN	119	-	121	-	120	-	122	-	121	-	122
NP	129	-	125	-	126	-	126	-	127	-	128
#6	112	-	112	-	11.1	-	11.1	-	11.1	-	11.0
RW Am	108	-	108	-	108	-	108	-	109	-	109
TTau	105	-	104	-	105	-	105	-	104	-	104
V351	89	-	90	-	89	-	90	-	90	-	89

add 5 mins below #2

SS Cyg 12.0 -

AH	12.9	-	129	-	130	-	129	-	129	-	130
V360	12.8	-	131	-	130	-	130	-	131	-	130
NP			123	-	123	-	124	-	125	-	125
MR											119

Seeing - Good to Very good

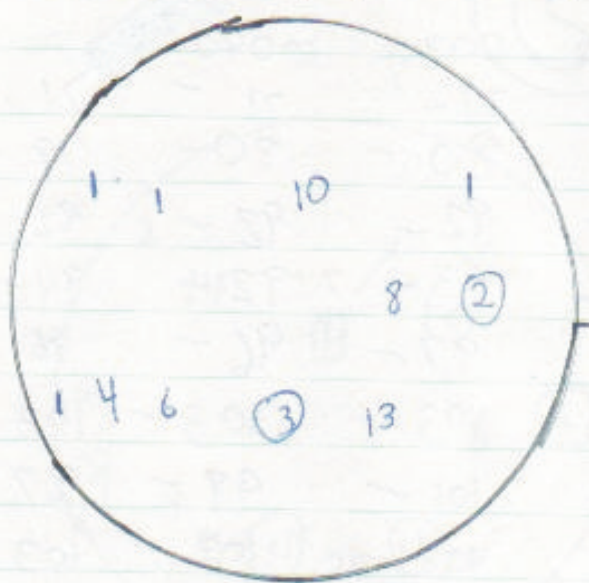
141 var = 780.



42015.

11/12.

1605-1620/3-F | JMB/Mira-3/-/SS 2.



G 11  
 S 50  
 R 160

4202E2.

1820 to 2025/7E 10-F/JMB/Pegasus,  
 Rigel, Mira 3<sup>+</sup>, (Spica - Echo), Minnowbrook /

SS

CN-I:

40

23

23a

16

31

} .6V

, CN-III: 1<sup>h</sup> 30<sup>m</sup>

W + S

Rigel + Pegasus.



4203M3.

~0000-0200 / 10+ f / 5MB / Shirley + friend / <sup>Crowd</sup> /  
 Regel Mndk, Spica, Echo, Regulus, Mira 3/4

	0030	0040	0050	0100	0110	0120
NU Ori	72-	72-	72-	71-	72-	71-
V372	80-	80-	81-	80-	82-	81-
V361	93-	93-	93-	93-	93-	94-
LP	94-	94-	94-	95-	94-	94-
IU	97-	96-	96-	97-	96-	97-
MX	103-	103-	103-	103-	103-	103-
M	100-	100-	102-	101-	100- <sup>⊙</sup>	98-
KS	104-	103-	103-	103-	104-	104-
I	102-	103-	102-	102-	10.1-	97-
#2	90-	90-	89-	90-	90-	89-
HU	118-	119-	119-	118-	120-	120-
AN	123-	121-	123-	122-	121-	123-
NP	127-	127-	125-	127-	127-	128-
AH	130-	129-	129-	130-	129-	129-
V360	131-	131-	131-	131-	131-	131-
NO	127-	127-	127-	128-	128-	12.7-
MR	121-	12.2-	12.2-	122-	123-	12.2-
IY	120.2-	12.0-	12.0-	12.0-	12.0-	119-
#6	11.1-	11.0-	10.9-	10.8-	108-	109-
RWAur	112-	113-	<del>114</del> 11.2-	112-	111-	111-
T Taur	104-	104-	<del>104</del> 10.4-	105-	104-	104-
V351 Ori	90-	90-	91-	92-	90-	9.0-

Seeing:  
 Good

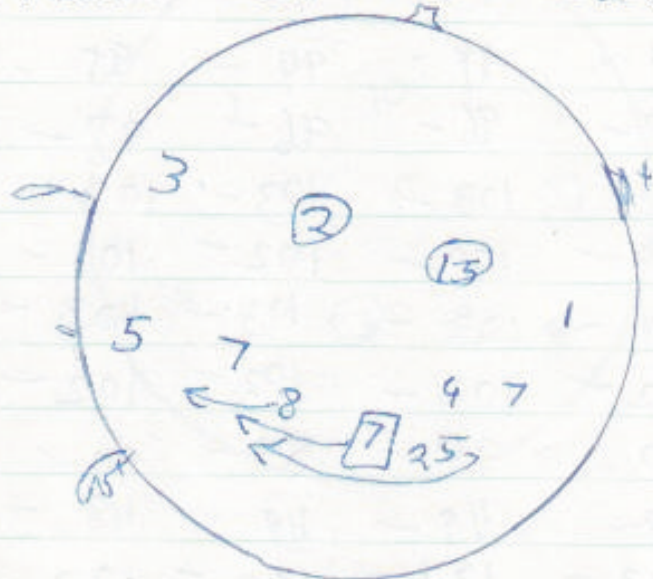
CN 5 Dome 0140 3-  
 SS Lys 12.0-  
 U Gem 12.3-  
 Mira 3.9-  
 132 Onions  
 + 3  
 135 = 915.



12/13

4204S. 1510-1630/10-F/ JMB/ Mira 3+others/-/

SS-2. Surveyor-II also outperforms Mira on Sun. But Mira is better than before, though not as good, probably as Surveyor, with a 10mm flossal.



G = 11  
S = 84  
R = 194.

4205E2 15: 1730-1815 / F-10 and town / - / - / CN-5  
Twt Hz n,

4206E3 2030-2055 / 7750 Oakwood / 7-F / Equus /  
- / VSO-I. M57.

W Cyg 66 -  
R XYL 68 -  
SS Cyg 12, 02 -

3000. 918

101:11 79

4207E. ~~F~~ 120035-0155 / 10-F/3MB/ Mnbk,  
Pego, Sp-Echol / - / USO-F:

	0050	0100	0110	0120	0130	0140
NU	72 -	72 -	71 -	72 -	72 -	71 -
V372	82 -	81 -	80 -	81 -	81 -	80 -
361	943 -	942 -	92 -	92 -	92 -	92 -
LP	94 -	94 -	94 -	94 -	95 -	94 -
16	96 -	96 -	96 -	96 -	96 -	96 -
MX	103 -	103 -	103 -	1082 -	102 -	105 -
UV	98 -	98 -	97 -	10098 -	97 -	98 -
KS	104 -	104 -	103 -	103 -	103 -	103 -
T	100 -	100 -	100 -	100 -	99 -	99 -
#2	89 -	90 -	90 -	89 -	89 -	90 -
HU	<del>121</del> 118 <sup>9</sup> -	119 -	118 -	119 -	118 -	118 -
IY	121 -	122 -	121 -	121 -	120 -	120 -
AN	122 -	123 -	122 -	121 -	<del>120</del> 119 -	120 -
NP	128 -	125 -	127 -	127 -	127 -	127 -
AH	130 -	133 -	134 -	134 -	135 -	136 -
V360	130 -	131 -	131 -	130 -	132 -	131 -
ND	127 -	128 -	128 -	128 -	127 -	127 -
MR	119 -	122 -	121 -	124 -	123 -	123 -
#6	107 -	106 -	107 -	106 -	107 -	107 -
RWA <sub>ur</sub>	114 -	916 / -	105 111 -	111 -	109 -	113
T <sub>low</sub>	105 -	104 -	105 -	104 -	104 -	104
V3510 <sub>m</sub>	91 -	90 -	89 -	90 -	91 -	91 -

22  
132 var = 1050

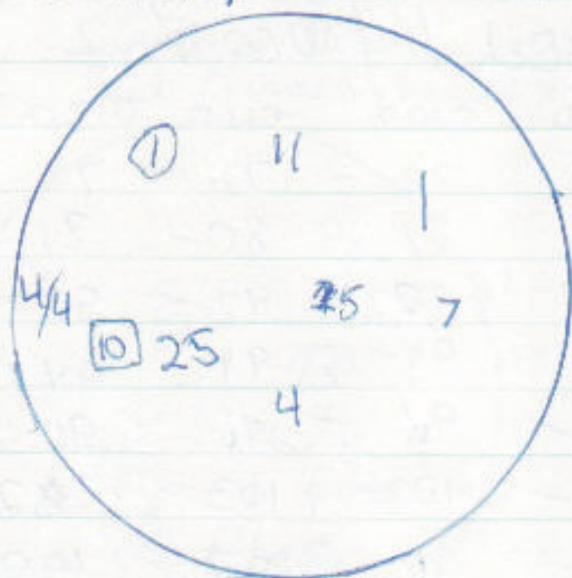


4208S.

13/14.

10-30-1120 / 10-F / 3MB / Minnowbrook

remounting P  
+ Mira 3-1  
SS-2.



G 10  
S 72  
R 172

(4210M3)

	0150	0200	0210		0155	0205	0215
NU	71	72	71	HU	120	119	119
U372	81	81	82	LY	121	121	120
V361	92	92	93	AN	117	119	120
LP	94	94	94	NP	127	127	125
LU	96	97	96	AH	129	129	129
MP	103	102	103	V360	131	130	131
NU	99	98	101	MR	127	126	126
KS	104	103	102	#6	123	123	123
T	98	101	101	RWA	107	107	106
2	90	90	89	TTax	107	108	108
				V3510	104	104	105
					89	90	89

2 Cam 11.7 -

22  
43  
66  
11  
67.

67 var = 11.7. CN3 0.15 m/s  
w/peg.



4209 E2. 2000-2100/7-f/Steward Observatory:  
① 21" + ② 5" telescopes; Flandrau Planetarium  
Observatory; ③ 16" Telescope. / Charles Fassel  
+ Frank, + others / ① MIS, 2. ③ MS7, 27,  
Σ 2816+19, ③ M45.

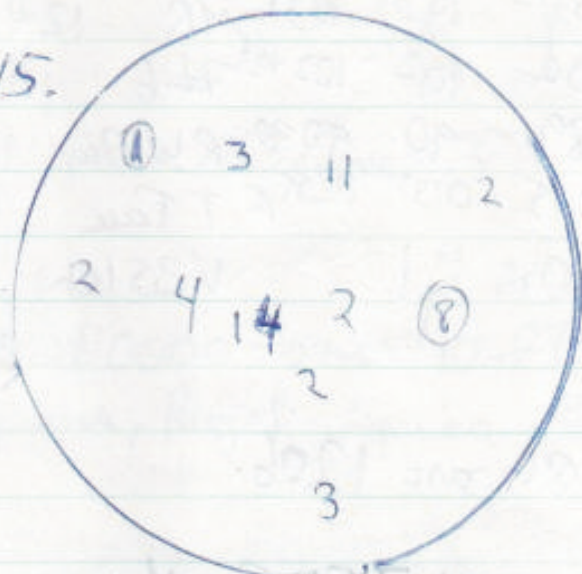
4210 M3. 000030-0225/10+-f/JMB/ Mnbk,  
Spica, Echo, Pegasus / Charles/  
CN-III, USD-I:

← SEE RECORD ON OPPOSITE PAGE.  
(Several meteors, Leonid, several sporadics)

4211 M4. 0500-0600/9-f/JMB/ Peg (others) / - / CN-3.

✓ CN-III: 0h 30m E. w/Peg.

4212 S. 14/15.



0835-1130 / 3-f/  
JMB/Mira 3/others/  
G: 11  
S: 52  
R: 162

+ laying concrete for

SATURN



4213 E.P. 2 ~1815-~1820 / 7-F / Tucodon / Charles (-)

Venus.

4214 M3. 0000-0325 / 10+ - F / JMB / Pegasus,  
 + Minnowbrook, Spica-Echo / Charles  
 JCN III Ori 35m. S. NGC.

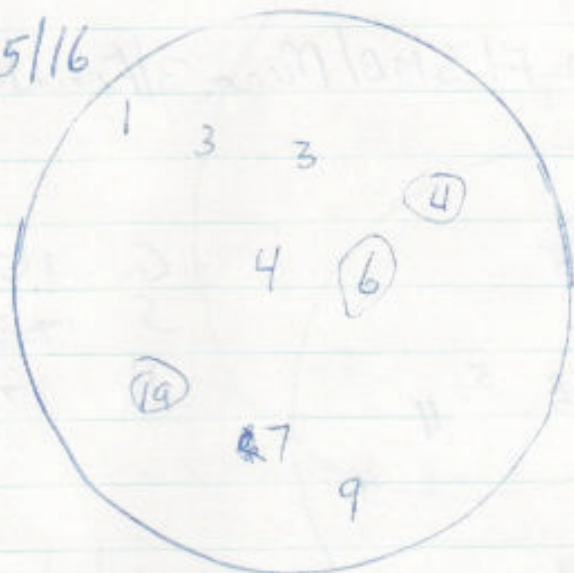
VSO-I:

#	0145	0155	0205	0215	0150 0200 0155	0200	0220
NU	72	71	71	72	HU	118	118 - 118+19
V372	81	80	81	80	1Y	120	121 - 122 121
V361	94	94	93	93	AN	120	120 - 122 122
LP	95	94	94	94	NP	127	125 - 123 125
IU	96	97	96	97	AH	129	129 - 129 124
MX	103	103	102	103	V360	131	130 - 130 130
NU	99	100	100	100	10	127	127 - 128 126
KS	103	103	103	103	MR	124	124 - 124 124
T	100	102	102	103	#6	107	107 - 107 107
#2	89	90	90	90	RW Aug	103	103 - 103 103
	0145	0155	0205	0215	T Tau	104	104 - 104 104
	2 Ori 101				V351 Ori	89	89 - 89 89
						0150	0200 0210 0220

25/89

89 var = 1206.

4215S. 15/16



1300-1315/8 3-F/JMB/  
Mira 3/-/SS-2.

G 9  
S 56  
R 136

4216S.  
~~425E2.~~

H 15/16/1830-2000/10-F/JMB/Munnawbrook,  
Pegasus, Rigel, (Spica-Echo) 1-1/CN-III  
1000m. ✓

CN-I: 16  
31  
23a } all 6 1745 ✓  
16  
40

CN 5 Deme 3 1930 ✓

103  
104

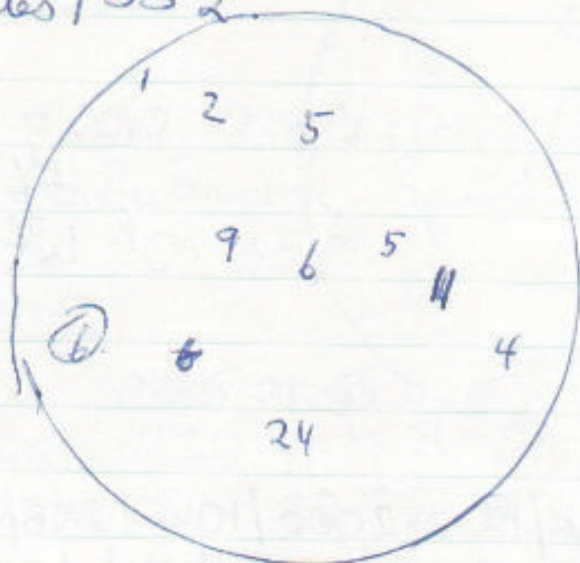
4217  
~~426M3~~

t 0000-0245/10-F/JMB/Munnawbrook,  
Pegasus, Rigel, Spica-Echo 1-1/CN-III 0h45m NE.  
Rosette Nebula.



4218

~~4127S.~~ 16117 | 1300-1315 | 10-F | SMB | Mira 3 / Frank + Charles / SS 2



G	10
S	<del>732</del> 73
R	173

4219E p2

~~4128E2~~

~2340-2350 | 9-10 F | dirt road near Prescott /  
- / Charles / G. Test for sky conditions.

4220EM3

\* ~~4129EM3~~

2355 to 0110 | 10-F | Prescott National Forest, entrance of road to Willow Springs Project Area / Jarnac II and Little Joe / Charles /

CN-5. Dome 2: (partial) ✓

1 CN-III: ~~Dome~~ 1' 00" S. (W of Orion)

no objects.

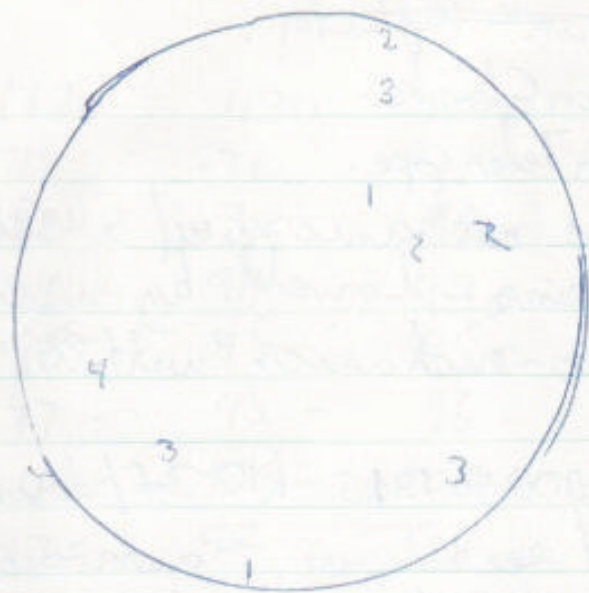
Mira = 43.8' Ivan = 1207.

4221MP4

~~4130MP4.~~

0140-0145 | 7-F | auto-rest motel, Prescott /  
- / general. Same general site as 4052 M.

Peter 4pm.



11 79

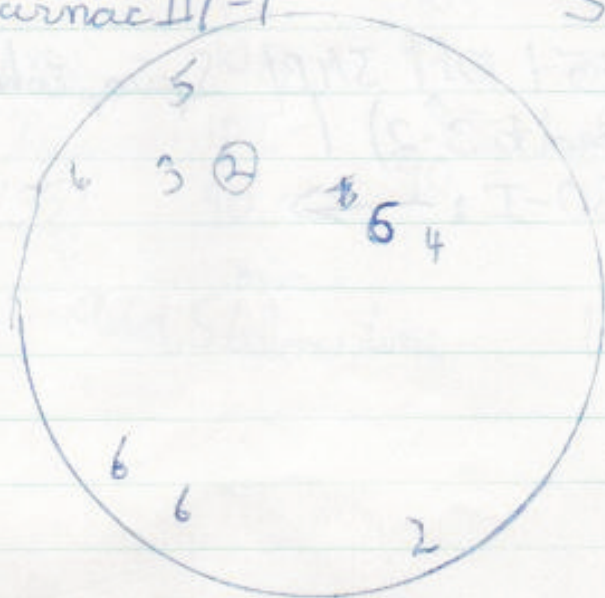
$G = 9$   
 $S = 21$   
 $R = 111.$

poor condition

4222S.  
~~4231S.~~ 17/18/0930-0945/2-F/ Auto-rest motel/  
 Jarmac II/-/SS2.

4223E2 1840-1855/2-1-F/ Roadway Inn, Flagstaff/  
 Vestal/-/CN-I: Area 40-4. ✓ View of Denali + Altair.  
 € . more humans in less space travelling faster  
 for fewer reasons  
 - from "Film Australia": leisure

4224S. 18/19/0915-0930/3-F/Roadway Inn, Flagstaff/  
 Jarmac II/-/SS-2.



$G = 9$   
 $S = 40$   
 $R = 130$



- 24" ~~Morgan~~ Reflector.  
 24" Alvan Clark.  
 24" Morgan Telescope.  
 31" Astro-mechanics; w/ 5" Celestron finder  
 72" Perkins - Lowell by Warner + Swasey  
 42" Astro-mechanics with 4" Alvan Clark  
 finder

422552

2 1000 to 1305 110-3f / Lowell Observatory,  
 2 stations / see above, + astroscan / David  
 DuRoi, Charles + Frank / observations  
 Secondary changing on 42". Sun view  
 w/ Sarnac II. USNO Dome for 60" inch  
 Very slick structure! (View of Sun w/ Vesta here)  
 Dome for 40 R/C (possibly the 1<sup>st</sup>) and silver  
 dome for 24?"

<sup>26</sup>  
 4230E3.

# 2000-2200 / 8-f / betw. Phoenix + Tucson /  
 Sarnac II / Frank + Charles / general obs. through  
 closed window w/ Sarnac II: M45, Hyades,  
 field of T Tau, M42.

4227E4

2300-0015 / 10f / JMB / Spica, Echo, Pegasus  
 (conditions dropped to 3<sup>↑</sup>-2) /  
 VSO-I: →



	1120	1130	1140	1150	1200
NO	72-	71-	71-	71-	71-
V372	82-	81-	80-	81-	81-
V361	94-	93-	93-	92-	92-
HLP	95-	95-	95-	95-	95-
LU	97-	95-	96-	96-	96-
MX	103-	103-	103-	102-	102
NV	97-	98-	98-	97-	99-
KS	103-	103-	103-	103-	103-
T	102-	102-	103-	104-	102
2	90-	89-	89-	90-	90-
HU	118-	118-	11.8-	118-	118-
IY	122-	122-	12.1-	122-	12.1-
AN	120-	11.9-	12.0-	11.8-	11.9-
NP	126-	126-	127-	126-	126
AH	129-	128-	129-	13.0-	129-
V360	134-	131-	13.1-	13.1-	13.1-
NQ	127-	123-	12.6-	12.6-	12.7-
MR	125.3-	122-	12.2-	12.2-	12.3-
#6	10.6-	105-	10.5-	10.6-	10.5-
RW Am	108-	9108-	104.08-	10.8-	10.8-
T Tau	102-	103-	104-	10.4-	10.4-
V351	90-	90-	90-	8.9-	8.9-

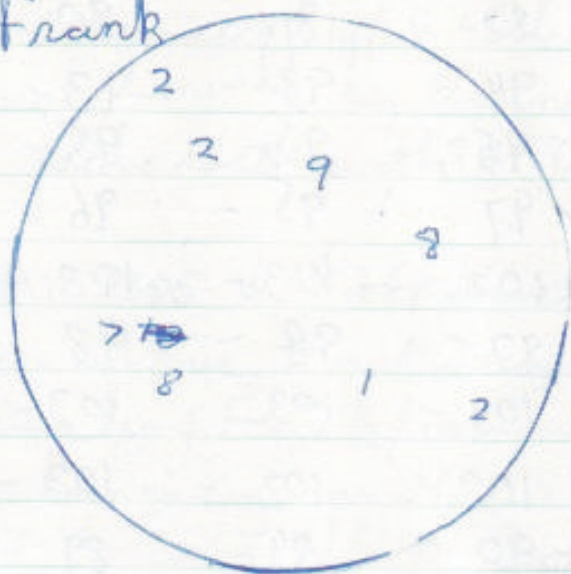
mins.  
add 5 below line, 110v = 1317.



19/20/ 4197.

\*42285.

~~2030-0830~~-1200 13-F/JMB/ Mira 3/#Vic,  
Charles, Frank



G = 8  
S = 39  
R = 119

SS-II:

Saturn setting up.

4229E2

~~1200-1815-1900~~/3-f/JMB/(Saturn) <sup>Rigel</sup>  
Minnowbrook I - Charles / <sup>Pegase</sup>

↓ CN-3 0h 10m

4230M3

2345-0245

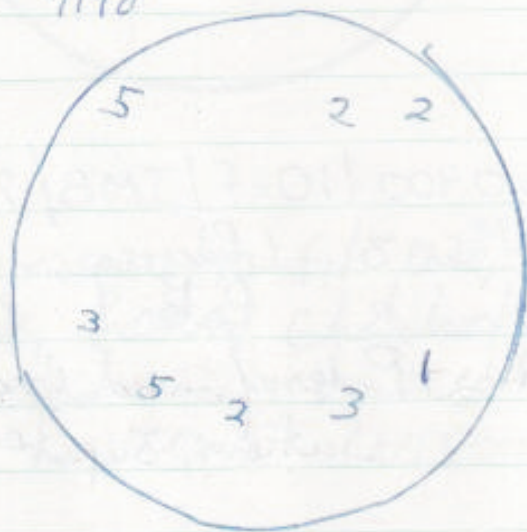
CN 3 0h 35m ✓

\*42315. 0945-1100/10-F/3MB/Saturn/Charles/  
Aligning Saturn.

423252 0100-0115<sup>13</sup>/<sub>15</sub>/10-F/3~~MB~~ Downtown/20x80/Peter, Charles, Frank/Sun

\*423393 140220-0235<sup>14</sup>/10-F/Shopping mall in  
Tucson/Anna GANYMEDE FIRST LIGHT/  
Peter, Charles, Frank/ SS 2:

20/21 4198



G 8  
S 23  
R 103

\*42345E4. 1645-1845/10-F/Mt Lemmon: 1. Catalina  
Observing Station of LPL Mt Lemmon Obser-  
vatory #2, Windy Point Vista, very  
appropriately named. 3. 1 stop below  
W. P. Vista. GANYMEDE FIRST  
LIGHT (AGAIN) / Charles, Frank, Peter/  
Sunset. Moon + Venus. CN-I: 5<sup>Dome</sup>  
40-23-23a-16-31 all 6 ✓  
Db Cl with Ganymede. Excellent optics  
Mt Lemmon not quite as dark as Corona site



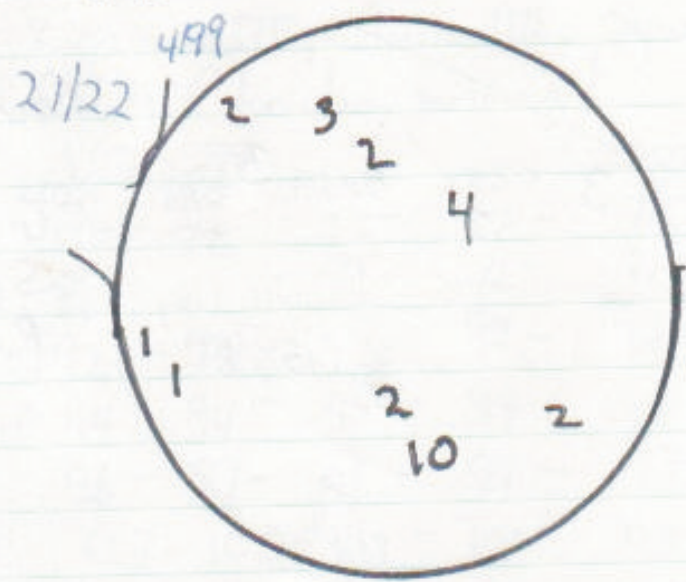
4235E5 20030-2130/7-F/Steward Observatory  
+ Planetarium / 21", 15" and 16" Telescopes/  
Frank, Charles and Peter. Greg + others/  
X And, Db Cl, NGC-663.

Lovely telescopes.

4235E6<sup>M</sup> 2345 to 0400 / 10-F / JMB / 9 Saturn,  
Ganymede, Mira 3. (Pegasus, Spica-Echo) /  
Charles, Frank, Peter / Alignment of  
Saturn's optics. Peter found Ceres + Juno but  
not Vesta. Saturn, Jupiter, M42.

42375<sup>2</sup>

1200 - 1215 / 10-f / 5MB / ~~Juno~~ Mira 3 /  
Peter / SS2.



G	9
S	27
R	117

4238E2

1830-2030 / 10-f / 5MB / ~~Mira~~ Saturn, Mira 3 /  
Pegasus, Rigel /  
Frank, Peter, Charles / CN-3. 0' m  
Peter found Ceres + Vesta.

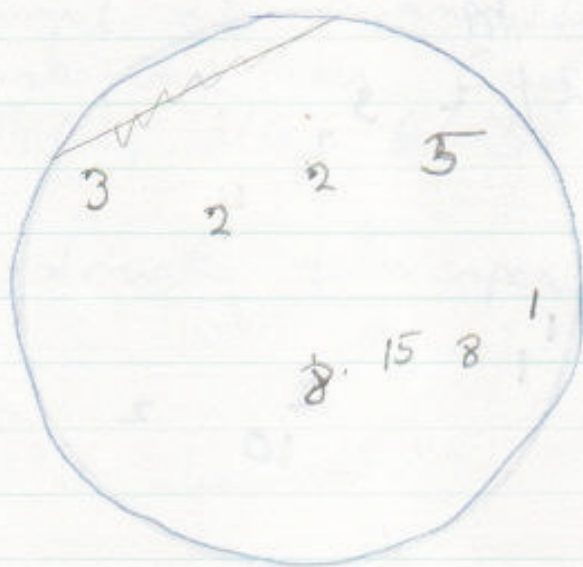
VSO-I: V1500 Cyg (14.4' / var = 1318

4239M3.

0200-0315 / 10-f / 5MB / Saturn, Mira 3,  
Cranyade, Pegasus / Peter, Charles / M42.  
Peter found Juno.



4200.  
42405 1/22/23/1310-1700 110-f/Kitt Peak/Solaris/Janis's  
telescope



Seeing = G only

G = 8  
S = 44  
R = 124

\*4241 E2 1800-1820/ 7-f/ Gates Pass/ Ganymede/ Peter,  
Charles, Frank. 18:13:30 - Approx Time of  
unexpected Lunar ingress, seen here with  
Ganymede. Successful observation.  
ZC 2724  
CN3 0.05" ✓

40425EM3 2200 to 02 | 10-f | JMB / <sup>11 78</sup> Cosmos II, Munk,   
 Cosmos III, Mira III, Spica, Echo, Saturn /   
 Peter, Charbo, Frankl

	1220	1230	1240	1250	1300	1310	1320	1330	1340
NU	71-	71-	72-	72-	71-	72-	72-	72-	72-
V372	81-	81-	81-	81-	81-	82-	81-	81-	81-
HV361	92-	92-	93-	92-	94-	94-	92-	93-	94-
HLP	94-	94-	95-	94-	95-	94-	94-	95-	94-
IU	96-	97-	96-	97-	97-	97-	97-	96-	97-
MX	103-	103-	103-	103-	103-	102-	103-	103-	103-
NV	97-	97-	97-	98-	99-	99-	100-	99-	98-
KS	103-	104-	103-	102-	103-	103-	103-	103-	103-
T	101-	101-	101-	101-	102-	102-	101-	102-	101-
#2	890-	90-	90-	90-	90-	90-	90-	90-	89-
HU	117-	118-	118-	117-	118-	118-	118-	119-	118-
IY	122-	121-	122-	121-	122-	121-	122-	122-	123-
AN	121-	120-	119-	119-	119-	119-	118-	117-	119-
NP	126-	126-	125-	126-	127-	127-	124-	123-	124-
AH	129-	129-	129-	130-	130-	129-	129-	129-	124-
V360	130-	130-	130-	131-	131-	131-	131-	129-	129-
NP	126-	126-	127-	127-	127-	127-	127-	126-	127-
MR	123-	122-	122-	122-	123-	123-	122-	122-	122-
#6	108-	108-	107-	107-	107-	108-	108-	107-	107-
AI = review	13.8-	13.6-	13.5-	13.4-	13.4-	13.6-	13.6-		13.5-

$$|7^{\circ} \text{vm} = 1497.$$



42435. 4201.

23/24 1120-1150 / 2-f / JMB / Mira 3 / + Vic / SS-2.



Conditions G-F!

G-9

S-38

R-128

424452. ~ 1450-~1550 / 2-f / Santa Rita / (Cransmed) / Peter / View of Mt Hopkins.

4245E3 2045-2200 / 7-f / Flandrau / Group  
128 16" / Peter, Greg, Suzie, others / M45  
Photos w. Peter. also 20x80 bin front.

4246M4 0150 - 0610 / 10-f / JMB / Munrobrook,  
Saturn, A Pegasus, Spica, Echo, Cosmos II,  
Cosmos III,

✓ CN-3 On 45<sup>m</sup> E. + S.  
early pre-dawn.

VSO-I: →

	0220	0230	0240	0250	0300	0310
NU	72 -	71 -	72 -	71 -	72 -	72 -
V372	82 -	81.5 -	82 -	81 -	82 -	82 -
V361	94 -	94 -	94 -	94 -	93 -	94 -
LP	95 -	95 -	95 -	95 -	94 -	94 -
IU	97 -	96 -	96 -	96 -	96 -	96 -
MX	103 -	103 -	103 -	103 -	103 -	103 -
NV	98 -	101 -	100 -	97 -	98 -	99 -
KS	103 -	103 -	103 -	103 -	104 -	103 -
T	101 -	101 -	101 -	101 -	101 -	101.5 -
2	90 -	90 -	90 -	90 -	90 -	90 -
HU	119 - ?	119 - ?	118 -	119 -	119 -	119 -
IV	12.1 -	12.2 -	12.2 -	12.2 -	12.1 -	12.1 -
AN	118.5 -	11.8 -	119 -	118 -	120 -	119 -
NP	127 -	127 -	127 -	127 -	126 -	127 -
AH	130 -	129 -	131 -	130 -	130 -	130 -
V360	13.1 -	13.1 -	130 -	130 -	130 -	131 -
MP	127 -	127 -	128 -	127 -	128 -	127 -
MR	122 -	120.5 -	120 -	119.5 -	121.5 -	120 -
#6	10.7 -	10.8 -	10.8 -	10.7 -	10.7 -	10.7 -
AI - new van	(13.5)	13.6				

$$\begin{array}{r} 5 \\ 19 \\ \times 6 \\ \hline 114 \end{array}$$

$$\frac{114}{5} = 22.8$$

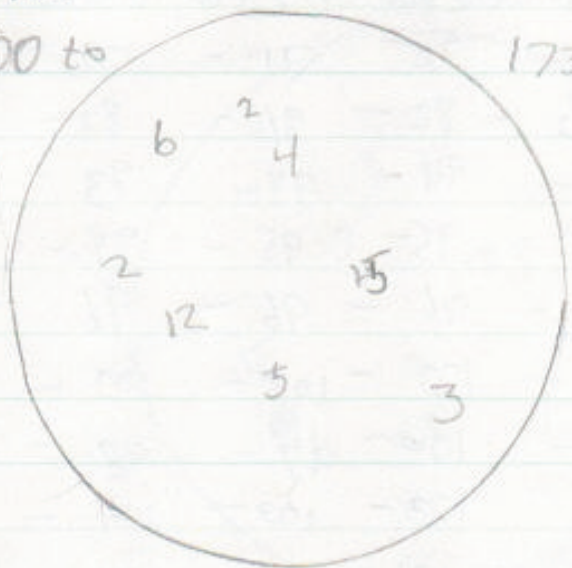
$$22.8 + 13.5 = 36.3$$

$$36.3 + 12.7 = 49.0$$

$$49.0 + 16.3 = 65.3$$



4247S. 24/25 1200 to 1730 10-F/3MB/  
E-G conditions



G 8  
S 49  
R 129

[all available instruments set up in yard.]

4248E2. ~~1830~~ 1730-1745/10-F/3MB/Spica - Echo/Peter)  
View of KPN10

4249E3. 2230 to 2330/8F/3 Oakwood  
Circel, Equus, Mira 3/ Peter, Vic,  
Gerry, friends / M31, D6 cl, M42.

4250M4 0050 to 0630- /10-F/3MB/  
Minnowbrook, Spica, Echo, Cosmos, II+III,  
Mintaka,

CN 3: 0<sup>h</sup> 30<sup>m</sup> S  
0<sup>h</sup> 40<sup>m</sup> WIE

∫ T+L 1<sup>h</sup> 10<sup>m</sup>.

Jan Matter 617-354-0484

11 79

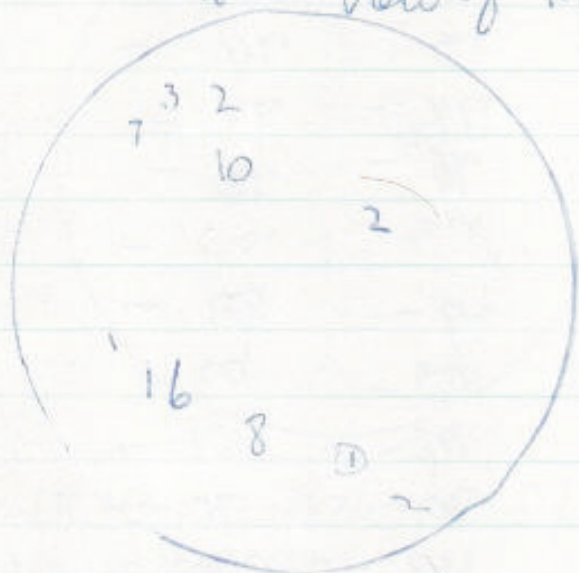
	0420	0430	0440	0450
NV	72 -	72 -	72 -	71 -
V372	81 -	81 -	81 -	82 -
V361	94 -	92 -	93 -	94 -
LP	94 -	94 -	94 -	94 -
UV	96 -	96 -	96 -	96 -
MX	103 -	103 -	103 -	103 -
NV	98 -	97 -	99 -	99 -
KS	103 -	103 -	103 -	103 -
T	101 -	102 -	102 -	101 -
2	90 -	90 -	90 -	90 -
HU	118 -	118 -	118 -	118 -
IY	122 -	121 -	120 -	121 -
AN	119 -	120 -	118 -	119 -
NP	127 -	127 -	128 -	127 -
AH	134 -	134 -	134 -	136 -
V360	134 -	131 -	131 -	130 -
NO	127 -	126 -	127 -	127 -
MR	122 -	121 -	121 -	121 -
#6	108 -	107 -	106 -	106.6x -

79  
4  
76

76 van = 1689 .



4251S. 25/26/1000-1030/10-f/JMB/Cosmos, Mira 1  
-1 SS-2. View of KNO+MMT.



G 10  
S 52  
R 152

4252 EM2 1815-2000/9-fm/JMB/Munnawbrook,  
Pegasus, Spica, Echo, Saturn, Pegasus Cosmos II  
+ III

Saturn's view of moon incredible. Magnificent

✓ CN-3.  $0^h 35^m$  W w/ Pegasus

LPO-I: 20 Pictures of moon w/ Cosmos II.

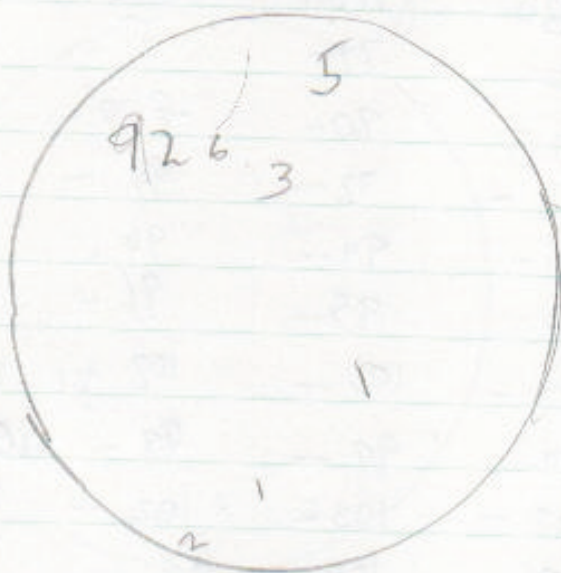
4253E 2300 - 0020 / 9-fl(m) - 10 / JMB / M, S, SE, P / - /

	VSO-I:	1130	1140	1150	1200	1200
NU	72	72	72	71	71	71
V372	79	79	80	879	79	79
V361	93	92	92	94	92	93
HLP	94	94	94	94	94	94
PU	95	96	95	96	96	95
MX	103	103	103	102	103	103
NV	99	99	99	98	101	101
KS	103	102	103	102	102	102
T	100	98	100	98	99	100
2	90	90	90	90	89	89
HO	121	120	119	119	119	120
LY	122	123	121	122	122	122
AN	117	117	119	120	119	119
NP	126	124	123	124	124	123
AH	132	132	131	130	130	132
V360	129	131	132	131	131	131
NP	125	127	123	127	127	128
MR	122	1492.1	125%	121	123	121
H6	106	106	106	107	106	106
T Tau	104	104	104	103	104	105
V351 Ori	89	89	88	88	89	90
RW Aur	105					
SS Cyg	12.1					

128 ~~13~~ van = 1817



4254S. 26/27 | 1140-1155 / 8-f / (SMB) / Mira 3 / - / SS2.



G 8  
S 29  
R 109

4255E2. 1830 to 2000 / 9-fm / JMB + ucn / Saturn,  
Pegasus (S-E-M) | - |

CN 3 0<sup>h</sup>30<sup>m</sup> West ↓

4256EM3 2200 to 0205 / 9-fm / Saturn, ~~my~~  
Minnowbrook, Pegasus, ~~the~~ Spica-Echo.

Alignment improving on Saturn.  
Somewhat Successful!

CN 3 0<sup>h</sup>15<sup>m</sup> Cancer w / Pegasus ↓

VSO-I:

Mira: 0020 4.2

	2330	2340	2350	0000	0010
NU	71-	71-	71-	71-	72-
V372	80-	81-	81-	80-	81-
V361	94-	92-	93-	93-	93-
LP	95-	95-	95-	95-	94-
IU	97-	96-	96-	96-	96-
MY	102-	103-	103-	102-	103-
NU	98-	97-	99-	98-	98-
KS	103-	102-	103-	102-	102-
T	101-	101-	101-	101-	100-
2	90-	89-	90-	90-	90-
HO	119-	119-	119-	119-	119-
IV	122-	121-	122-	122-	121-
AN	117-	118-	117-	117-	117-
Npy AH	<del>123-</del>	<del>125-</del>	<del>124-</del>	<del>127-</del>	<del>127-</del>
	132-	132-	133-	132-	131-
V360	131-	131-	131-	130-	131-
NP	128-	128-	127-	126-	1287-
MR	119-	119-	119-	119-	119-
#6	107-	108-	107-	107-	107-
T Tau	104-	103-	103-	103-	104-
V351	<del>108-</del>	89-	88-	89-	87-
Moon	-12,36721 4159: visual estimate				

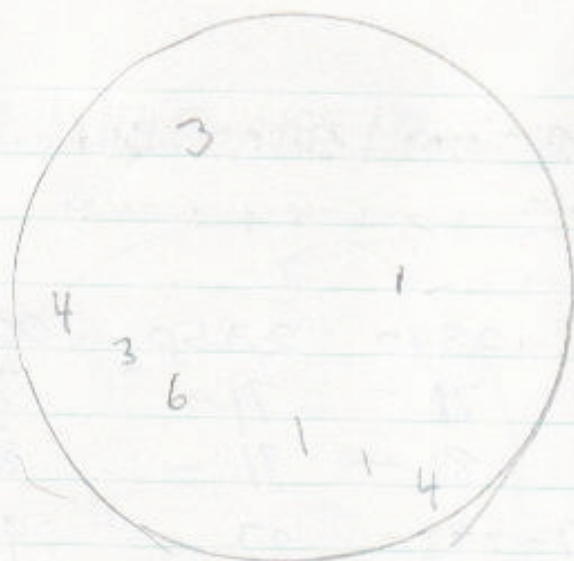
RWAur 10.84-  
108vars 1925.

10.8-

of full moon brightness  
3 weeks ago (from memory  
of sighting).



4257S.



0 Nov 27/28/  
 1100-1120/10-f/  
 JMB/Mira 3/-/  
 SS 2.  
 G 8  
 S 23  
 R 103

4258E2

1750-1900 / 8-f(m) / JMB / Minnowbrook  
 Pegasus, Spica - Echo, Saturn Kf. Regel (-)

~~CAT~~

CN-3: 0h 30m ✓

4259E3

2030-2043 / 8-fm / JMB / Vesta,  
 Ceres / - / CMI

40

23

23a

16

31

all 6 ✓

4260EM4 2300-0010 / 8-Fm / JMD /  
 Mnltr, Pegasus, Rigel, Spica, Eclp,  
 Saturn / - Victor / Moon. Photos of w  
 w / Saturn.

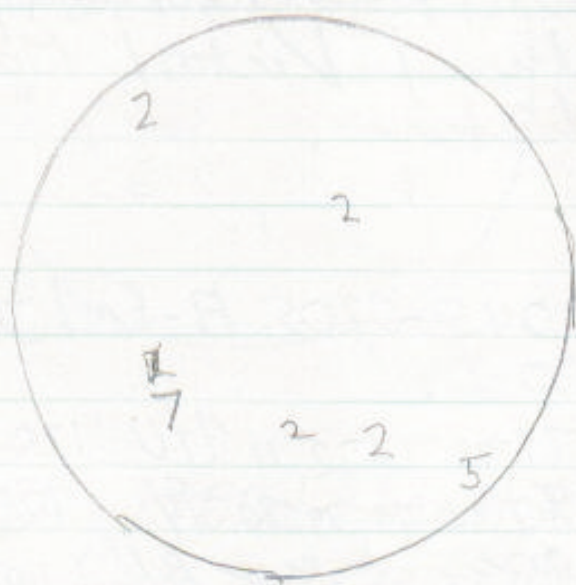
4261M5. 0045-0205. 19-Fm / JMR / see above /  
 - / VSO-I:

NU	71-72-71-72-71	11U	120-119-119-119-119-
V372	80-80-79-79-80-79	TV	123-122-121-121-121-
V361	93-92-93-92-93	AN	119-118-118-118-117-
HLP	94-94-95-93-94-NP		124-124-124-123-123-
IU	96-96-97-96-97	AH	133-135-135-135-135-
MY	102-103-103-103-102	V360	131-131-131-130-131-
NV	98-100-100-100-100	TV	127-127-126-127-127-
KS	103-102-102-101-102	MR	119-118-117-117-119-
T	100-101-101-101-101	#6	107-107-106-106-107-
2	89-89-90-89-90	V351	89-90-89-90-90-
	0100 0110 2030 40		0105 15 25 35 45

100 var = 2025.



4262S. 28/29/1130-1150/10-F/3MB/Mira 3/-/SS2.



G 6  
S 22  
P 82

4263EP2. 1850-1900/7-fri/Bart Bok's house/-/  
Dr. Bok / view of gibbous moon.

4264E3 2020-2035/8-Fri/3MB/Murren-  
brook, Ceres - /CN-I.

40

23

23a

16

31

Derme 2.5 ✓

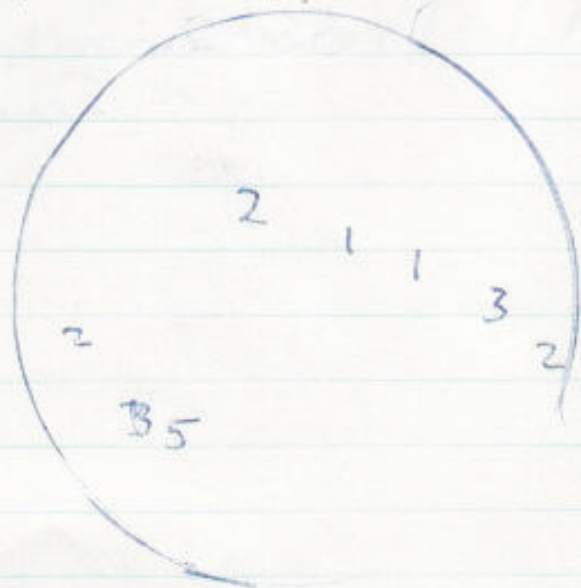
all 6 ✓

4265.EM4 2330-0100N / 3-F / JMB / Minnowbrook,  
Saturn, Spica-Echo / Boulder, uncorrected /  
Moon, M42.

NV	72-72-	72-
V372	81-79-	80-
V361	92-92-	93-
LP	93-93-	93-
10	95-96-	96-
MY	103-102-	102-
NV	98-100-	100-
K5	102-103-	103-
T	103-102-	103-
2	89-89-	89-
	1225	1235
		1245

30 var = 2055

4265S. 29/30 / 1100-1115 / 9-F / JMB / Mira 31- / SS2.



G 7  
S 16  
R 86



4267SE2 ~ 2 | 30 ~ 2 | 45 | 3<sup>8</sup> - Fri / JMB / Eves (Saturn  
+ Minnowbrook | - | CN-I:

40 6

23 6 ✓

16 6

31 6

~~Dome 2-5~~

4268M3 ~ 0030 ~ 0100 | 7 - Fri / JMB / Saturn,  
Rigel, Minnowbrook | - | Moon, Jupiter

Algol at minimum!

4269S. 30 | 31 | ~ 1005 - 1030 | 8 - Fri / JMB |

Mira 3 | - |

SS-2.:

See opposite page.

4269 S-concd



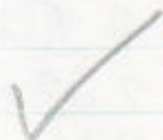
11 79

G	6
S	18
R	78

4270 EP2 2120-2130/8-7fm/SMB/Coras/-/

CN-I

40	6
23	5
16	6
31	6



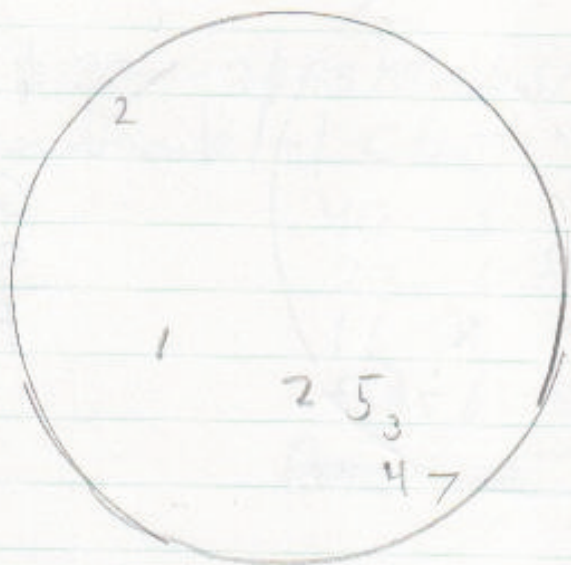
4271 M. 0035-0105 18<sup>m</sup>f/SMB/Batelgense,  
Saturn, Minnowbrook / - / Meron, 2, ♂.

avoid of test  
margin



DECEMBER 1979

4272S. 1/2



1610 to 1625

10 F / 3 M B /

Mira 3 / - /

SS 2

G 7

S 24

R 94

4273E2. 1810-1900 19-fm / 3 M B / Rigel, Saturn, Minnowbrook, Hercules / - / Venus

- Test shots
- 1 5 sec
  - 2 3 sec
  - 3 several
  - 4 several
  - 5 several
  - 6 1/8?
  - 7 1/15
  - 8 1/30
  - 9 1/60
  - 10 5 sec
  - 11 ~~5 sec~~  
1 sec
  - 12 ~ 10 sec

Test for Venus Program

CN-3. 0h 10m W ↓

CN-I: 40 3 /

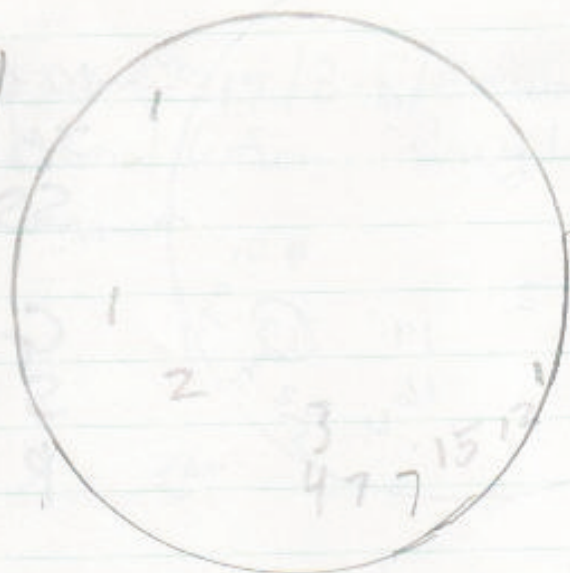
23 all 6

23a Dome R. 5

16

} all readings taken + WCG 6.8

4274S # 2/31



1105-1120/70-F1  
JMB/Mira 3)  
-/SS-2.

G 9  
S 53  
R 143

4275E2

1820-1840/7-Fm | JMB/Rigel, Ceres/-/

CN-3 O<sup>n</sup> 10m W.V

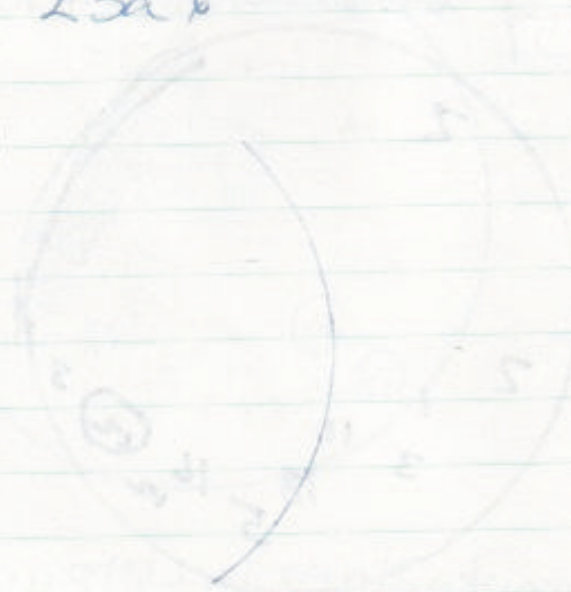
CN-1 31 6

16 6

40 6

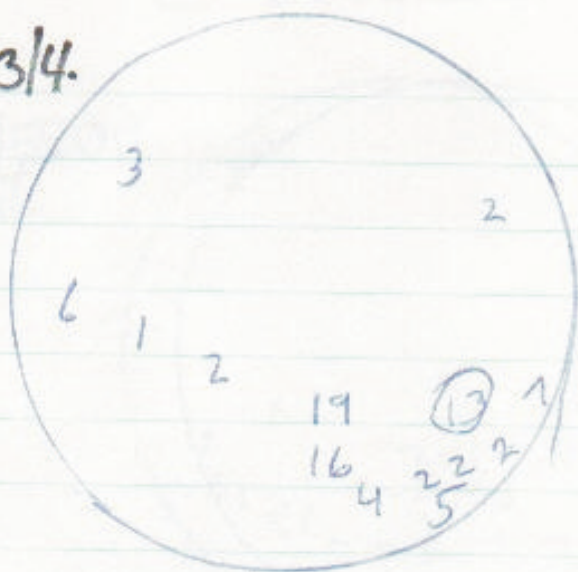
23 6

23a 6





4276S. 3/4.



1200-1220/8-F/  
JMB/Mira 3/-/  
SS2.

G 13  
S ~~84~~ 84  
R 214

4277E2. 1945-2000/3-Fm/JMB/Ceres/-/

CN-I:

40 23 23a 16 31 all 6.

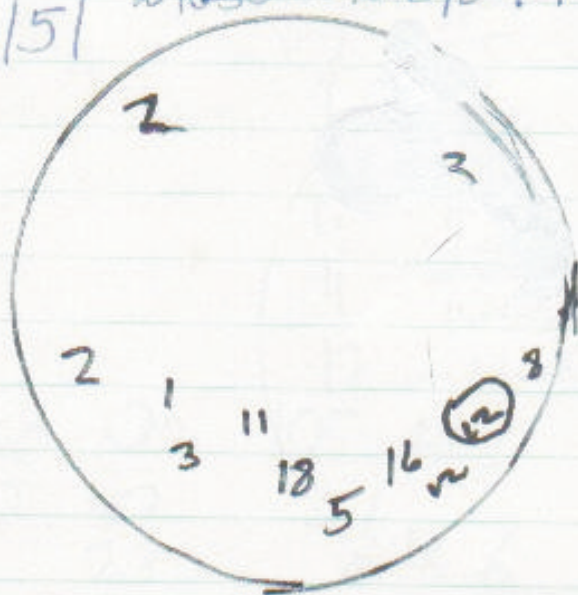
4278M3

0325-0340/6-f/JMB/full v moon/  
Saturn, Minnowbrook/Moon.

4279S.

4/5/

~~1030-1045~~ 1100-1115/8-F/JMB/Mira 3/-/SS2.



G 12  
S 92  
R 212.

4280. EQ. 2130-2215 / 8-fm / Steward / Greg + David / +  
21" reflector / Orion. "Bright" (~12.4) star  
in trapezium. Moon.

18  
121

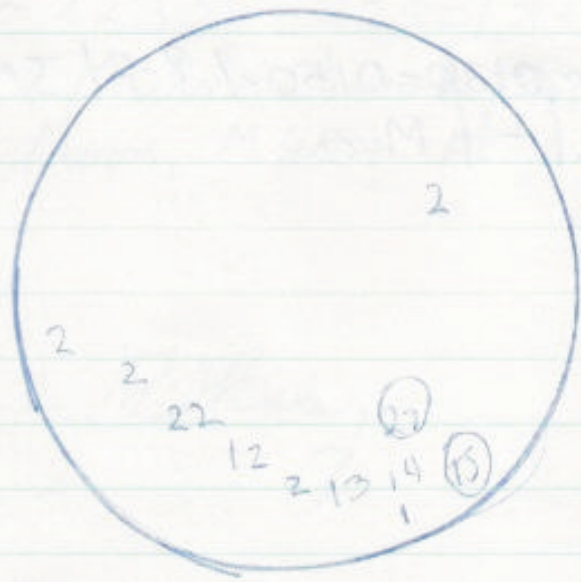


Mira 4.3v low

ET

4281 M3. 0000~ - 0030~ / 7-fm / JMB / - /  
Minnowbrook, Saturn /  
Alignment.

4282 S. 5/6 / ~ 1115 - ~ 1130 / 8-fm / JMB / Mira 3 / - /  
SS 2.



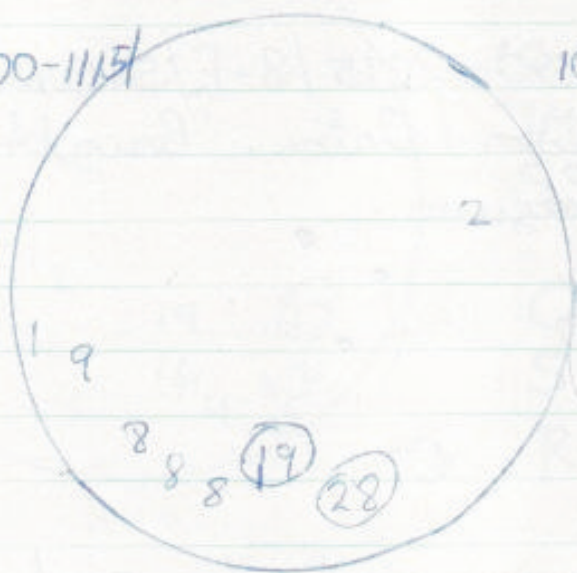
G 11  
S 112  
R 222

\*4283 M2 0100-0145 / 8-fm / JMB / Saturn + Minnowbrook /  
Jupiter: shadow of moon. M42. Mars. Moon.  
Saturn in best alignment yet! Moon spectacular.



4284S. 6/7/1100-1115

10-F/JMB/Mira 3/-)



SS2

G 7

S 81

R 151

4285S2.

1550-1615/Dr. Blechta's Science Class

Rm 308, Ed. Bldg, U of A/GANYMEDE

(+ Minkaka + Mercury + Alphecca) / ~35

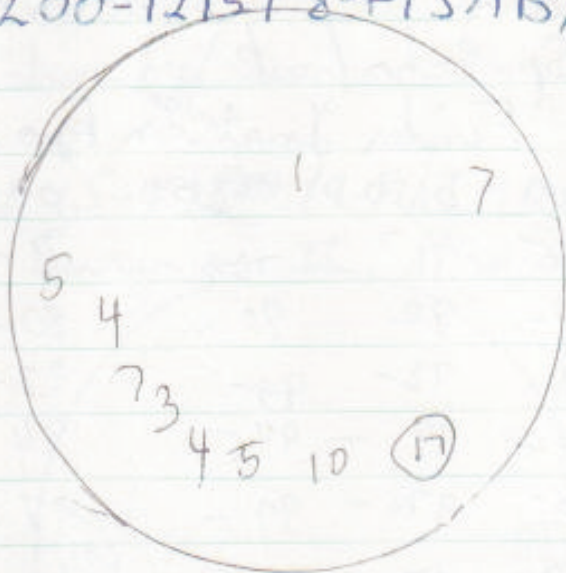
people / Sun proj. on ceiling.

4286M3

~0130-0150~ / 8-F/JMB/Saturn,

Minkaka / - / Moon.

4287S. 7/8/ 1200-1215/ 8-F/ JMB/ Mira 3/ -/ SS 2.



G 10  
S 63  
R 163

4288E2 ~2030-~2045/ ~~8~~ 9 1/2-F/ JMB/  
Saturn + Minnowbrook / Pr. Richard Wilby /  
Db Cl, Polaris.

4289E3 ~2230-~2250/ 8-Fm/ JMB/  
Saturn + Minnowbrook, Spica + Echo / R.  
Wilby / Moon, M42. A 1

Richard Wilby



4290M.4

0020-0245<sup>hr</sup> / 8-fm / 15MB / ← Saturn,  
Mnlk, Sp-Echo / - /Finder Inst. <sup>called</sup> on Pgo (Saturn)

	0140	0150	0200	0210	0220
NU	71-	71-	71-	71-	71-
V372	80-	82	80-	80-	81-
V361	92-	92-	93-	92-	92-
LP	94-	94-	94-	94-	93-
10	96-	97-	97-	97-	98-
Mx	103-	102-	103-	103-	102-
NU	99-	100-	97-	100-	98-
KS	103-	104-	93-	93-	94-
T	101-	101-	100-	101-	101-
2	89-	90-	90-	90-	89-
HO	120-	120-	120-	120-	120-
1Y	122-	122-	122-	121-	122-
AN	118-	117-	117-	118-	118-
AHNP	122-	123-	124-	123-	124-
AH	129-130-131	131-	131-	131-	132-
V360	129-130	130-	129-	130-	130-
NP	126-	124-	127-	127-	127-
MR	116-	117-	116-	118-	118-
#6	106-	106-	106-	107-	108-
V351	92-	91-	91-	91-	91-

100 var. = 101





\*4293E3. 1820-2320 19 1/2 - F / JMB / Amalthea,  
 Minnowbrook, Mira 3, Saturn, Pegasus,  
 Spica, - Echo /

✓  
 ~2000 11.7 = CN 3. ~~0~~ 1<sup>h</sup> 00<sup>m</sup> W4NW  
 SS Cyg CN-I: 40-6

WCyg 6.5 - 2115 11.9 - 23-6 16 6  
 21230 120 - 23a-6 31 6

	660	667	674	681	688	694	701	708	715	722
	850	900	910	920	930	940	950	1000	1010	1020
NU	71	71	71	71	71	71	72	71	72	72
V372	81	81	80	81	80	80	81	80	80	81
V361	93	93	93	92	92	92	92	92	92	92
LP	94	95	95	94	94	94	95	94	94	94
IU	96	97	97	96	96	96	96	96	96	96
MX	102	102	102	102	102	102	102	103	103	103
NU	99	99	100	99	99	101	98	98	100	99
KS	103	103	103	102	103	103	102	104	102	102
T	103	102	104	103	103	102	103	103	102	101
2	90	90	90	90	89	89	88	88	89	89
HU	119	120	120	119	120	120	120	119	120	119
IY	121	120	119	120	121	122	119	119	121	120
AN	118	118	118	118	119	119	117	119	118	118
NP	126	124	124	124	123	123	123	124	124	126
AH	132	133	132	132	131	132	130	133	132	132
V360	130	130	129	129	129	130	129	129	130	129
NP	119	127	127	127	127	126	126	127	126	125
MR	119	120	119	120	121	121	123	119	119	119
#	108	108	102	107	107	109	108	108	108	107
V351	89	89	89	89	89	89	89	88	90	90

204 var = 304  
 (305)

Leo Box 196 Sharlot Lake

KOH<sup>L1270</sup> 2PO

4294M4.

0030-0115 / 7-F / JMB / Saturn, Miancault,  
Amalthea, Mira 3 / - / Moon, Jupiter, Mars  
(Pgs, Sp-Echo.)

EAL 198

EOE

---

[4293E3 conc'd.]

Photos of Orion with Hercules on  
Mira 3.

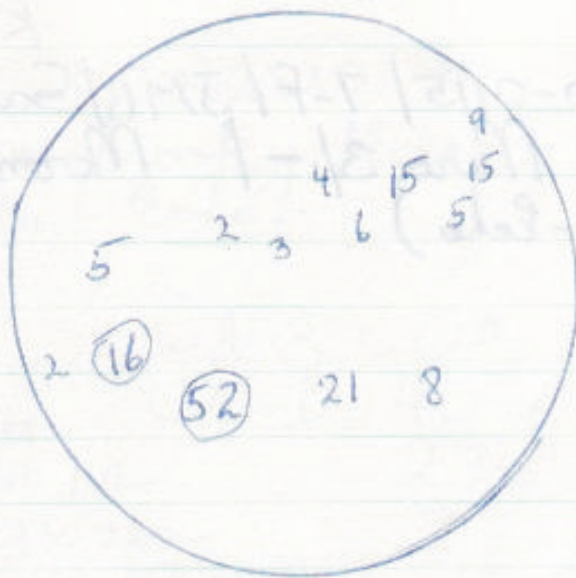
several at 1-5 mins.

Amalthea's	Then:	10secs
variables:		5secs
Nova Val 9.3 9.4		2.5secs
S Per 9.4		1.25secs
		0.5secs.

Nebulosity in M45.  
seen w. Amalthea.

[Test 2 for Venus shots]





Excellent cond.

G 14  
S ~~121~~ 163  
R 303

42955. 9/10/1600- 1700/6-F/JMB/4 Surveyor II/-/SS2.

4296E2 + 1815-2055/10-F/JMB/Saturn,  
Mnbk, Pgo, Sp, Echo/-/

SS cyyg 120-

6/ var = 365.

CN-I: 40 - 6

23 - 6

642 648 23 - 6656

825 835 845

NU	72	72	72	HU	830	840	850
V372	81	80	80	IY	119	120	119
361	92	92	92	AN	120	121	119
LP	94	93	94	NP	123	124	122
IU	96	96	97	AH	133	128/32	133
MX	102	102	101	V360	130	128	128
NU	98	98	98	Np	127	127	127
KS	102	102	102	MR	120	122	120
T	103	103	103	#6	108	108	108
2	89	89	89	V351	89	90	91

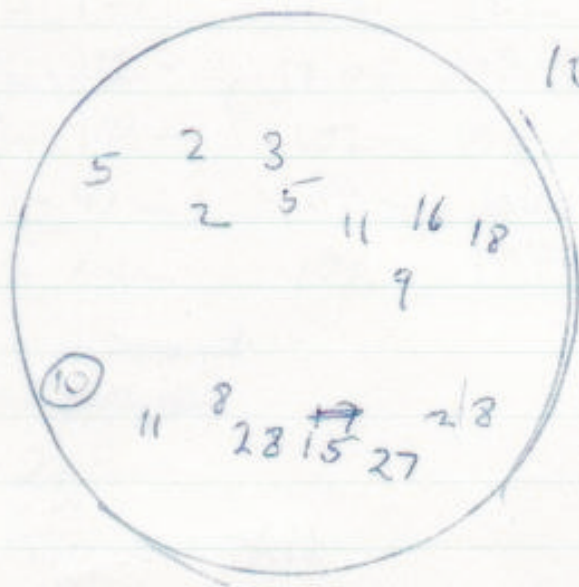
No  
CN 32

4297MB.

0115-0150		18-f/5MB/see 4296E2)	
-		-	
847		854	
VSO-I:	0120	0130	0125 0135
NU	71 -	71 -	HU 120 - 119 -
V372	79 -	79 -	IY 120 - 121 -
361	92 -	92 -	AN 119 - 117 -
LP	95 -	94 -	NP 125 - 126 -
IU	96 -	97 -	AH 132 - 131 -
MX	102 -	102 -	V360 130 - 129 -
NU	98 -	98 -	ND 126 - 127 -
KS	104 -	104 -	MR 119 - 118 -
T	103 -	103 -	#6 108 - 107 -
2	90 -	89 -	V351 91 90 -

40 van = 405.

42985. 10/111



1010-1030/10-f/5MB/  
~~Area~~ Surveyor 2/1

SS 2  
 G 17.  
 S 198  
 R 368



Elaine 886-0568.

Gerry's office 297-2206.

4299E2.

1820-2000 / 10-f / JMB / Spica,  
Echo, Saturn, Minnowbrook, Rigel, Pegasi - /  
SS cys 12.0 = 1.000 = 406.

CN-I: 405 23-5 23<sub>a</sub> 5 at 1950.

✓ CN-III 1<sup>h</sup> 00<sup>m</sup> SW

4300E3. 2230 to 0030 / 10-3-f /

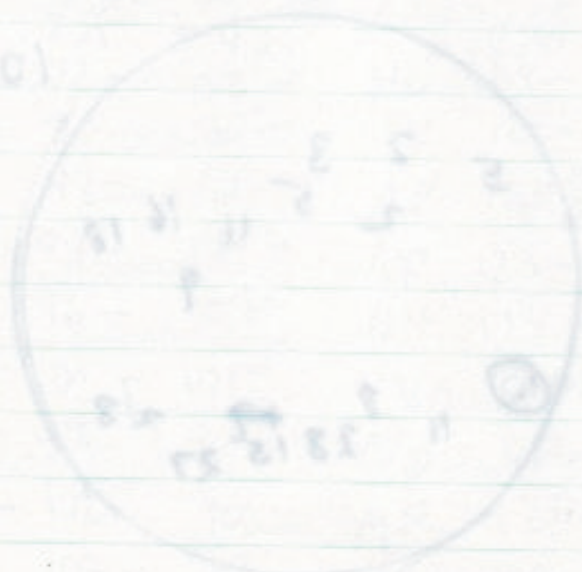
JMB / see above / - /

VSO-I: see opposite

4301M4 0130-

above / - /

VSO-I: See opposite.



4300 EM3

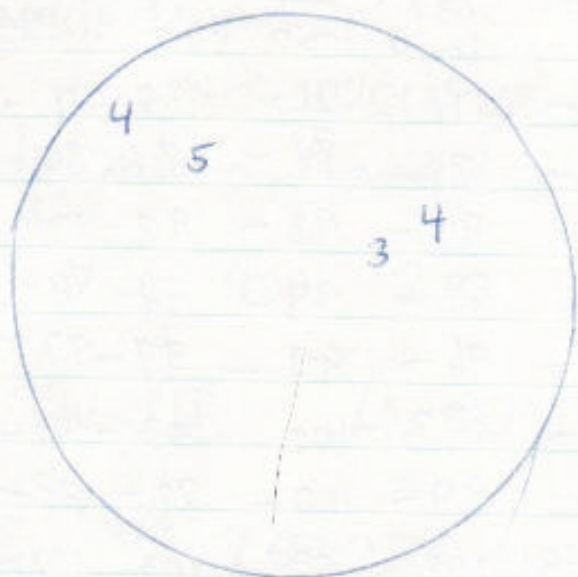
12 70 4301M 4.

	743 1050	750 1100	757 1110	771 <del>764</del> 1130	778 1140	785 <del>1150</del> 1150	854 1330	861 1340	868 1350	875 1400
NU Ori	72 -	71 -	71 -	71 -	72 -	71 -	71 -	71 -	71 -	72 -
V372	80 -	80 -	81 -	81 -	81 -	80 -	80 -	80 -	82 -	81 -
V361	91 -	92 -	93 -	92 -	92 -	92 -	92 -	92 -	92 -	90 -
LP	94 -	94 -	94 -	94 -	94 -	94 -	93 -	93 -	92 -	93 -
IU	97 -	96 -	96 -	97 -	97 -	97 -	97 -	96 -	96 -	97 -
MX	103 -	103 -	103 -	102 -	103 -	101 -	102 -	102 -	102 -	102 -
NU	100 -	99 -	90 -	90 -	89 -	89 -	88 -	88 -	88 -	88 -
KS	102 -	102 -	102 -	102 -	103 -	102 -	103 -	104 -	104 -	103 -
T	103 -	103 -	103 -	104 -	104 -	104 -	103 -	103 -	103 -	103 -
2	89 -	89 -	<del>89</del> 90 -	90 -	90 -	89 -	89 -	89 -	89 -	89 -

HU	119 -	118 -	118 -	118 -	118 -	117 -	118 -	117 -	117 -	117 -
IV	122 -	119 -	122	119 -	120 -	120 -	119 -	121 -	120 -	121 -
AN	120 -	119 -	119 -	120 -	117	118 -	117 -	117 -	117 -	119 -
NP	124 -	124 -	123 -	123 -	118	123	123 -	123	124	123
AH	132 -	132 -	130 -	133 -	133 -	131 -	132 -	131 -	130	131
V360	129 -	128 -	129 -	129 -	127 -	129 -	128 -	128 -	129	128
NP	127 -	127 -	127 -	127 -	126 -	125 -	125 -	125 -	125	128
MR	118 -	118 -	120 -	118 -	118 -	119 -	118 -	118 -	118 -	119 -
#6	107 -	108 -	107 -	108 -	107 -	107 -	108 -	107 -	107	107
V351	90 -	91 -	89 -	104	91 -	90 -	109	109	91	91
T Tau	104 -	104 -	104 -	104 -	105 -	104 -	104 -	104 -	104	104

12 ~~count~~  
 Hours  
 $\frac{11}{10}$   
 $\frac{21}{\times 10}$   
 210 vars = 616





G 4  
S 16  
R 56

Very poor.

4302S. Dec. 11/12 | 1035-1100 | 2-F | JMB |  
Surveyor-2 | - | SS-II.

4303E2 1900-1920 | 2-F | JMB | Minnowbrook I  
- | 2 UM<sub>i</sub>.

4304E3 2120-2135 | 2-F | JMB | Pegasus  
- | VSO-I: SS Cyg 8 11.5 -  
Ivar = 617.

find out for Elaine when they're coming

12 79

05M4

0215-0330 18-F1 JMB/Spica-Echo

.3-

	0230	40	50	0300	0310
NU	72-	71-	71-	71-	71-
V372	82-	81-	82-	82-	81-
361	92-	92-	91-	91-	91-
LP	94-	93-	94-	94-	94-
IU	97-	97-	97-	97-	97-
MX	103-	103-	102-	102-	102-
NU	97-	97-	98-	98-	100-
KS	104-	104-	104-	<del>103</del> 103-	104-
T	103-	103-	103-	104-	103-
Q	890-	90-	90-	<del>90</del> 90-	90-

HU	<del>118</del> 118-	118-	118-	118-	119-
IV	123-	123-	122-	121-	123-
AN	119-	117-	119-	119-	119-
MR	118-	117-	118-	118-	119-
NP	122-	125-	124-	125-	124-
AH	<del>131</del> 131-	131-	<del>129</del> 131-	132-	131-
V360	130-	129-	130-	130-	130-
NP	127-	127-	127-	127-	127-
#6	108-	107-	107-	107-	108-
V351	91-	90-	89-	91-	90-
Tan	103-	104-	104-	104-	<del>103</del> 103-

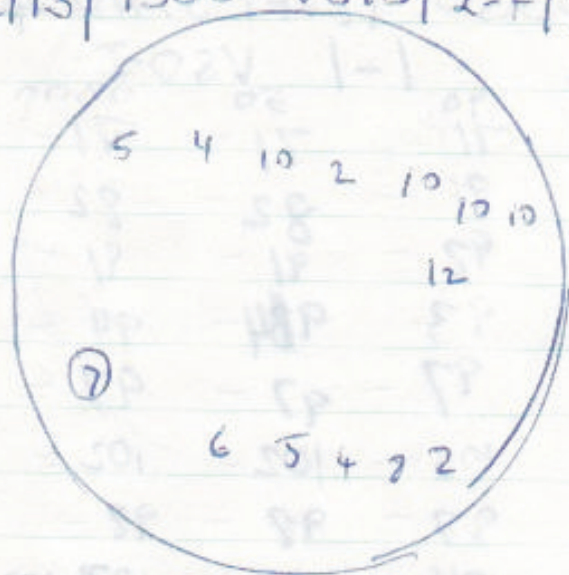
Some cloud problem  $2\frac{1}{2}$   
 but spectacular moon-cloud play of light



4306S.

12/13/1300-1315/2-F/3MB/Surveyor 2/-/SS2.

Per condition.



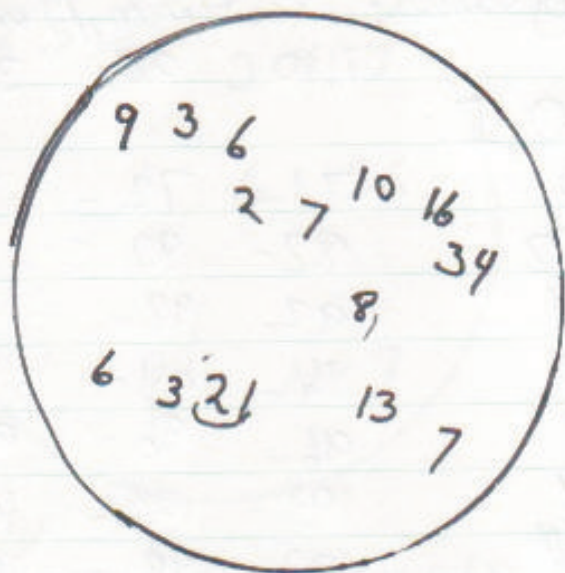
G 14  
 S 95  
 R 235

4307 M2

1400-1415/3-F/3MB/-/Munnöwbrook/

General.

43085. 13/14 / 1115-1130 / 10-f / JMB / Surveyor 2/H  
SS 2.



G 14  
S 145  
R 285

4309E2

1830-2000 / ~~8-F~~ 10-F / JMB /

Pegasus, others / - / -

VSO-I: SS Cyg 8.7-

✓ CN3 - ③ 1<sup>h</sup> 00<sup>m</sup> SW.

1401 =  
723



over 32 meters this season

43105. 2250-0100 <sup>10</sup>18-f/5MB/Spruca-Echo  
Pegasus, Saturn, Minnowbrook/-/

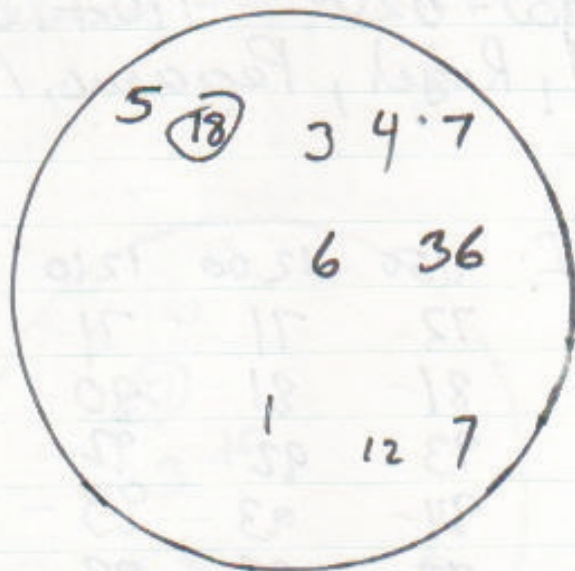
1110 20 30 40 50.

VSO-I:

VNU	71-	72-	71-	71-	72-
V372	82-	80-	82-	81-	81-
361	92-	92-	92-	92-	92-
LP	94-	94-	94-	94-	94-
10	96-	96-	97-	96-	96-
MY	103-	103-	102-	102-	103-
NU	100-	99-	99-	98-	100-
KS	104-	104-	104-	103-	103-
T	103-	106-	107-	108-	109-
Z	90-	90-	90	90-	89-
HU	118-	119-	118-	119-	119-
LY	120-	120-	120	120	121-
AN	116-	117-	116-	117-	118-
MR	119-	118 <sub>0</sub> -	119-	120-	120-
NP	124-	125-	123-	126-	124-
AH	132 <sub>0</sub> -	132 <sub>0</sub> -	131 <sub>0</sub> -	131-	133-
V360	130 <sub>0</sub> -	129 <sub>0</sub> -	129 <sub>0</sub> -	129-	130-
NO	127-	127-	128-	128-	128-
#6	108-	107-	107-	106-	107-
V351	87-	87-	87-	88-	89-
Tlan	105-	105-	104-	105-	105-

21

105 van = 829 (828)



G 10  
S 99  
R 199

14/15

43115. 1300-1315/10-F/3MB/Surveyor/-/  
SS-2.

4312E2 1830-2000/10-F/3MB/Pegasus etc/  
-| CN3 ~~043~~  
| 400m SW ✓



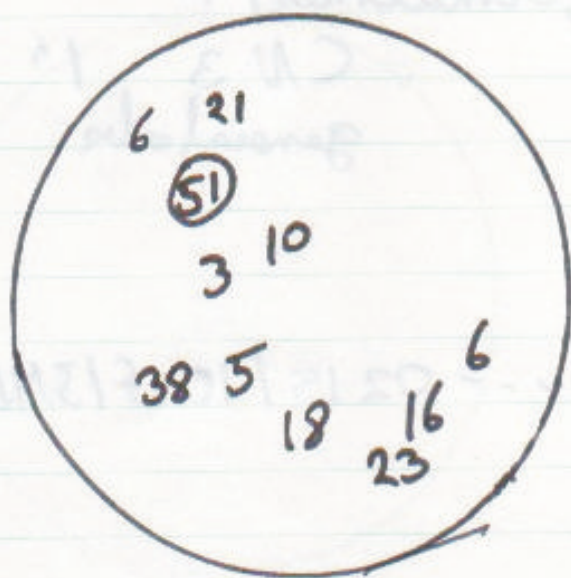
4313EM3. 11435 → 0200 110-f/3MB/Spica-  
 Epher, Rigel, Pegasus, Mnk, Saturn/  
 -1\$

VSO-I:	1150	1200	1210	1220	1230
NU	72-	71-	71-	71-	72-
VB672	81-	81-	80-	80-	80-
V361	93-	92-	92-	93-	92-
LP	94-	93-	93-	94-	94-
IU	97-	97-	97-	97-	96-
MX	103-	103-	103-	103-	103-
NU	97-	97-	97-	97-	96-
KS	104-	104-	103-	103-	102-
T	108-	108-	107-	108-	108-
2	90-	91-	91-	90-	90-
HU	119-	119-	117-	118-	119-
IY	122-	121-	120-	123-	120-
AN	119-	120-	120-	120-	118-
MR	120-	122-	121-	121-	120-
NP	128-	125-	127-	127-	127-
AH	1302-	131-	131-	131-	131-
Vs60	130-	128-	128-	130-	129-
NP	126-	125-	127-	127-	127-
6	107-	108-	108-	107-	107-
351	87-	88-	88-	87-	88-
Tan	104-	105-	105-	104-	104-

105 vane 934.

1231 Geminid - 7 to - 9,

9 meteors.



G	11.
S	197
R	307

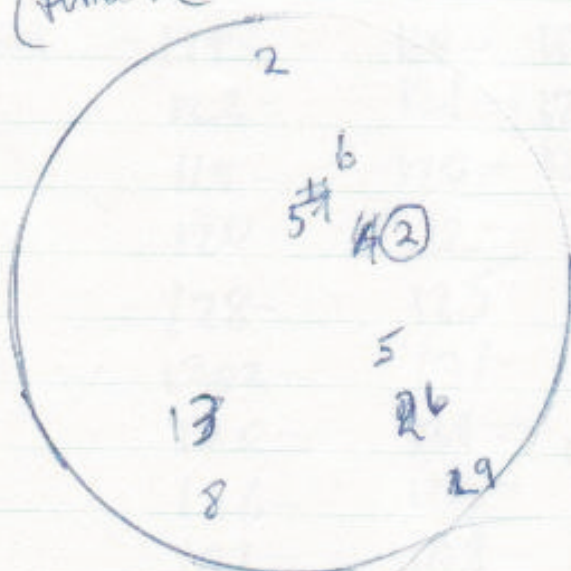
43145. 15/16/1520-1535/8-f/3MB/Surveyor 2/  
-/SS-2.



4315EMR 1850-0025/8-10-f/Saguaro Monument  
 West/TAAA/8"rl, 6"folded refr,  
 6"Meade refl, f 8"celestron, binoculars,  
 Rigel, Amalthea/✓  
 ✓ CN 3 1' 00" SW.  
 general obs.

4316M3 0200~--0215/10-f/3MB/-/-/general

4317S 16/17 (times?) (nn 1200 - nn 1215 nn)  
 3-f/3MB/Surveyor 2/-/  
 SS 2 F-P  
 G 9  
 S 565756  
 P 146

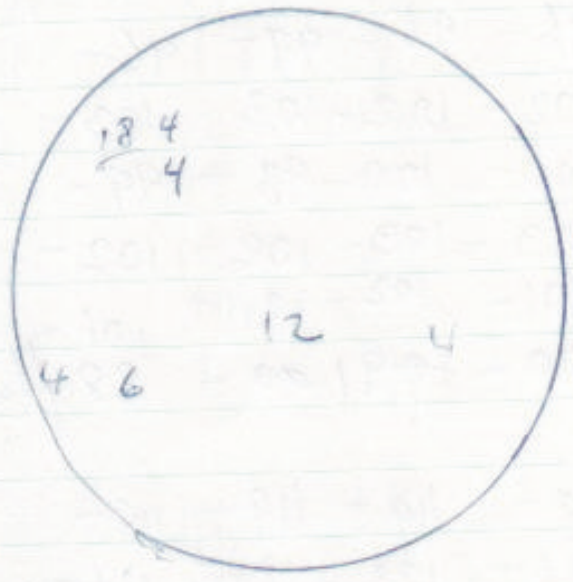


43188EM2 0100~--0115/8-2-3-f/3MB/-/Ganymede/  
 general.

43195.

17/18. CN III Day.  
Pegasus 1-1 SS2.

1150-1210 / 8-F / 5MB/



G 7  
S1 52  
R 122

\*4320AN2

~~18/19~~ 17/18 / 1815-0630 / 10-F / 5MB/

Saturn, Minnowbrook, Little Joe, Spica,  
Echo, Pegasus, Rigel

- |        |            |         |  |
|--------|------------|---------|--|
| Part 1 | 1815-2000  | CN 3    | 1 <sup>h</sup> 00 <sup>m</sup> SW.                             |
| 2      | 2030-2055  | 40-6    | on CN-1  |
| 3      | 2155-2345  | VSO-I:  | 6 Orion runs   |
| 4      | 0055-01405 | VSO-I:  | 4 Orion runs   |
| 5      | ~0255-0415 | Saturn. | CN-3 1 <sup>h</sup> 00 <sup>m</sup> S                          |
| 6      | 0455-0630  | CN 3.   | 1 <sup>h</sup> 00 <sup>m</sup> E.<br>+ between Pollux + Castor |

Total CN-3: 3<sup>h</sup> 00<sup>m</sup> . w/Pegasus ✓  
First view of Saturn w/ backlit(?) rings faintly  
visible. With Saturn the Telescope.



#4320AN2.

	1030	40	50	1100	10	20
NU	72-	71-	72-	72-	71-	72-
V372	79-	79-	81-	79-	80-	80-
V381	92-	92-	92-	92-	93-	92-
LP	94-	94-	93-	93-	94-	94-
10	95-	95-	96-	96-	97-	96-
MX	102-	102-	102-	102-	103-	103-
NV	98-	100-	100-	100-	98-	99-
KS	102-	103-	103-	103-	102-	102-
T	101-	103-	101-	102-	101-	101-
2	89-	90-	90-	<del>91</del> -90-	88	flickering? -

HU	119-	118-	118-	119-	119-	119-
IY	121-	121-	121-	122-	122-	121-
AN	120-	119-	120-	120-	119-	120-
MR	121-	121-	121-	123-	122-	121-
NP	123-	124-	127-	125-	123-	123-
AH	<del>128</del> 130-	129-	129-	130-	130-	131-
V360	128-	128-	128-	129-	128-	130-
NP	126-	125-	126-	127-	127-	127-
6	108-	108-	107-	107-	106-	107-
351	88-	88-	88-	88-	88-	87-
T Tur	103-	104-	104-	104-	104-	103-

SSCyg 9.3 at 19<sup>19</sup>50~~2050~~.  
2050-

\*4320AN2

12 79

0110	0120	0130	0140.
71 -	71 -	72 -	72 -
82 -	82 -	82 -	82 -
92 -	92 -	92 -	92 -
94 -	93 -	94 -	95 -
96 -	97 -	97 -	96 -
102 -	102 -	102 -	103 -
98 -	98 -	98 -	98 -
102 -	103 -	103 -	102 -
101 -	100 -	100 -	100 -
90 -	89 -	90 -	91 -

CN 3's

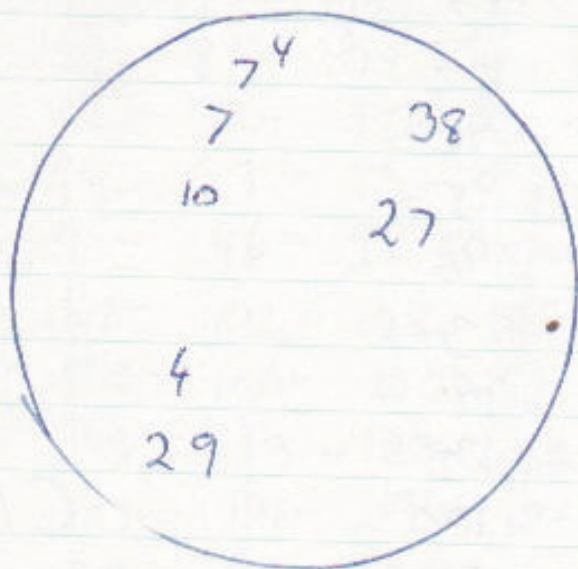
14<sup>th</sup> anniversary session

119 -	120 -	119 -	119 -
122 -	122 -	127 -	123 -
120 -	119 -	117 -	119 -
121 -	120 -	119 -	119 -
126 -	126 -	126 -	127 -
130	130 -	129 ✓ -	129 ✓ -
130 -	130 ✓ -	130 ✓ -	130 ✓ -
127 -	127 -	128 -	127 -
106 -	106 -	106 -	107 -
88 -	88 -	88 -	90 -
104 -	104 -	104 -	104 -

$$\begin{array}{r}
 21 \\
 \times 10 \\
 \hline
 210 \text{ van} + 1 = 211 \text{ van} = 1145
 \end{array}$$



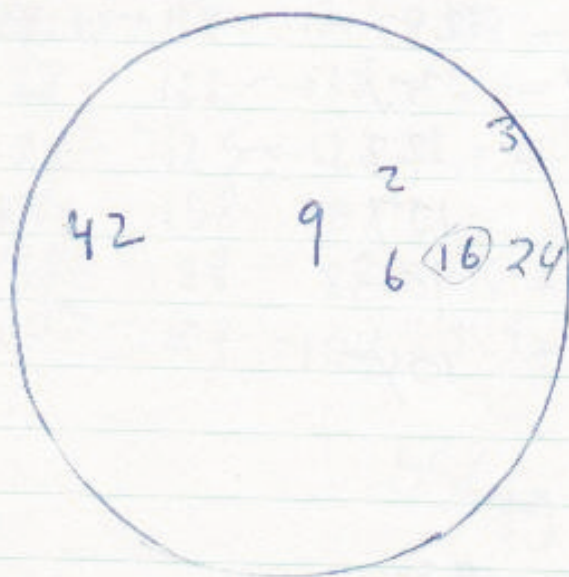
4321S. 18/19 | 1300-1315 | 10-F | JMB | Surveyor | - | SS 2



G 8  
S 126  
R 206  
E condition

The night of the 18 and the 19th was cloudy.

4322S. 1130-1145 | 19/20 | 8-7-F | JMB | Surveyor | - | SS-2



G 7  
S 102  
R 172

Cond. E.

4323EM. 21-2355-0015 n/5-4<sup>3</sup>-F | Holiday Inn,  
Phoenix / Ganymede | - | Capella