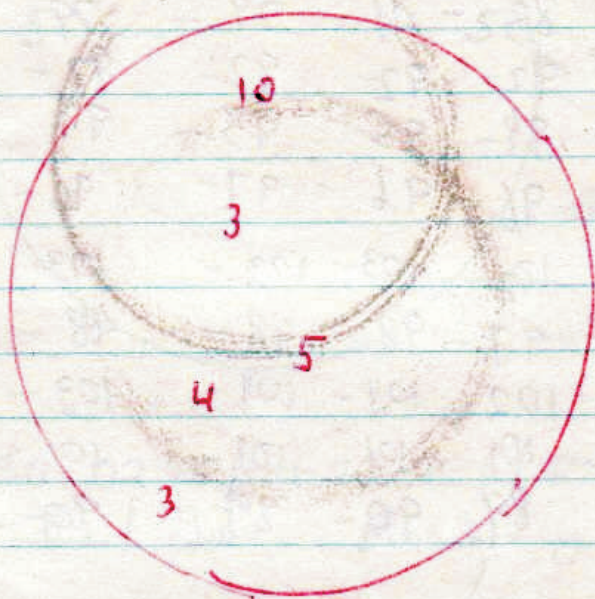


THE IMAGES OF THE DAVID LEVY LOGBOOKS are for personal and research use for non-commercial purposes. The image copyright holders are David and Wendee Levy, Jarnac Observatory, while the copyright for all other material is held by the RASC, unless otherwise indicated. Users are allowed to download or print materials from this website for purposes of research, teaching, and private study, without prior permission provided that the materials are properly credited to the copyright holders, David and Wendee Levy, Jarnac Observatory, and the RASC. All other uses such as commercial or scholarly reproduction, redistribution, publication or transmission requires permission from the copyright holders, and fees may be required. Please contact levylogbooks@rasc.ca to obtain permission, and fees information.

12 79

43245. Dec 20/21/0820-0840/3-F/ Holiday Inn, Van
Buren St, Phoenix/Ganymede /-/ SS2 .



G 5
S 25
R 75

JARNAC OBSERVATORY

LOG TEN

begins Dec 20 1979

4325M2 0025-0200 / 810-F/SM B / Spica-Echo, Satarum, Maliki

Vice | 0040 0050 0100 0110 0120.

NU 71- 71- 71- 71- 71-

V382 83- 81- 79- 79- 81-

361 92- 92- 92- 92- 92-

LP 94- 95- 95- 95- 94-

IU 96- 96- 97- 96- 96-

MX 102- 103- 103- 103- 102-

NV 97- 98- 98- 98- 98-

KS 102- 104- 104- 103- 103-

T 101- 101- 101- 101- 101-

2 89- 90- 89 90- 90-

HU 119- 118- 119- 119- 118-

IY 123- 121- 122- 121- 121-

AN 118- 118- ~~121~~119- 118- 119-

MR 121- 119- 120- 120- 121-

NP 127- 125- 126- 127- 126-

AH 130- 130- ~~129~~131- 130- 130-

V360 128- 128- 129- 129- 131-

NQ 127- 127- 127- 127- ~~128~~128-

H6 108- 107- 107- 108- 108-

V351 88- 88- 87- 88- 87-

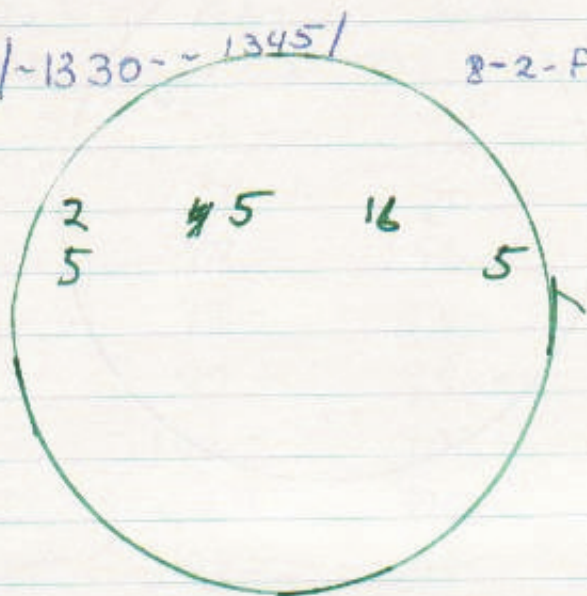
T 105- 105- 105- 104- ~~105~~104-

AT 132- 133- 133- 133-

$$22 \times 5 = 110 - 1 = 109 \text{ van} = 1254$$

12 79

43265 21/22/-1330-~1345/ 8-2-F/JMB/Granysmaekle/-/
SS 2.



G 5

S 33

R 83

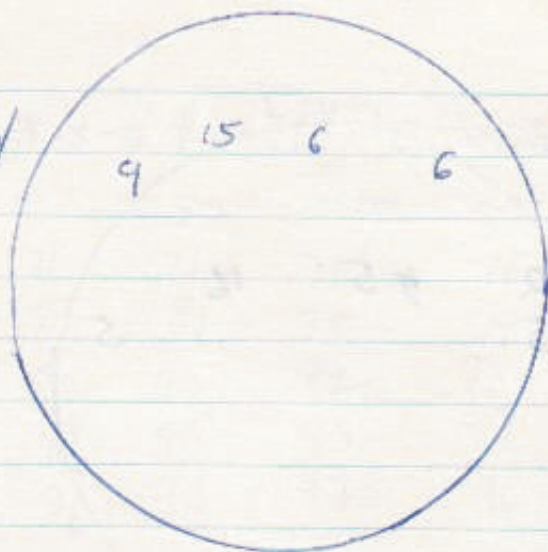
*4327M2 0130-0245/8-f 10-3-f/JMB/Voyager, Saturn &
(Spica) | - Vic | Im First Light

for
VOYAGER

first object: Jupiter
excellent telescope!

also, test for new 20m Erfle.

432.85. 22/23/1130-1150/



3-F/5MB/Voyager/

Via/SS 2:

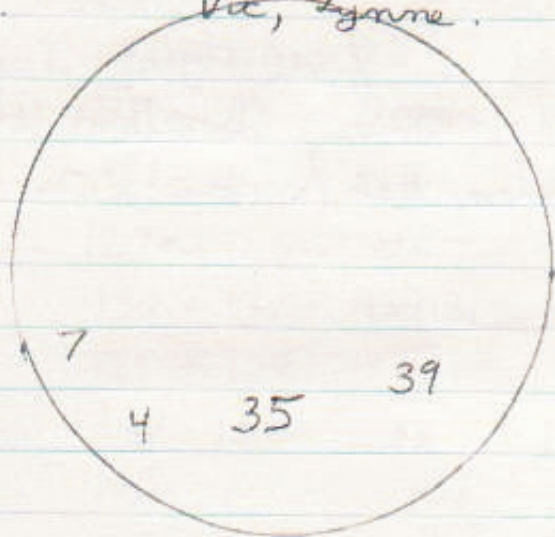
G 4

S 36

R 76

432.7M2

0300-0315 ~ 2-B-F/5MF/Voyager 1-1 Jupiter

433.05. 23/24/1525-1550/9-F/5MB/Mira 3 and Surveyor 2/-/
Sunspot-II. Via, Lyone.

G-E

G 4

S 85

R 125

.12 79

	1980	1980	1950 2000	2000	2070
On: NU	72 -	72 -	72 -	71 -	73 -
V372	79 -	78 -	80 -	79 -	80 -
V361	92 -	92 -	92 -	92 -	92 -
LP	94 -	93 -	94 -	94 -	93 -
U	96 -	97 -	95 -	96 -	96 -
MX	103 -	103 -	102 -	103 -	102 -
NU	98 -	98 -	100 -	98 -	98 99 -
KS	104 -	103 -	103 -	102 -	9 103 -
T	101 -	101 -	102 -	100 -	10 101 -
2	89 -	89 -	88 -	89 -	89 -
HU	119 -	119 -	120 -	119 -	119 -
Y	121 -	122 -	122 -	121 -	121 - *
AN	118 -	117 -	118 -	118 -	119 -
MR	119 -	119 -	120 -	121 -	121 -
NP	122 -	124 -	123 -	124 -	126 -
AH	133 -	133 -	133 -	134 -	135 -
V360	129 -	130 -	130 -	131 -	130 129 -
NP	127 -	126 -	127 -	127 -	127 -
#6	108 107 -	107 -	107 -	107 -	107 -
V351	88 -	87 -	87 -	88 -	88 -
T Tauri	101 -	103 -	103 -	103 -	104 -

105 Wm = 1359.

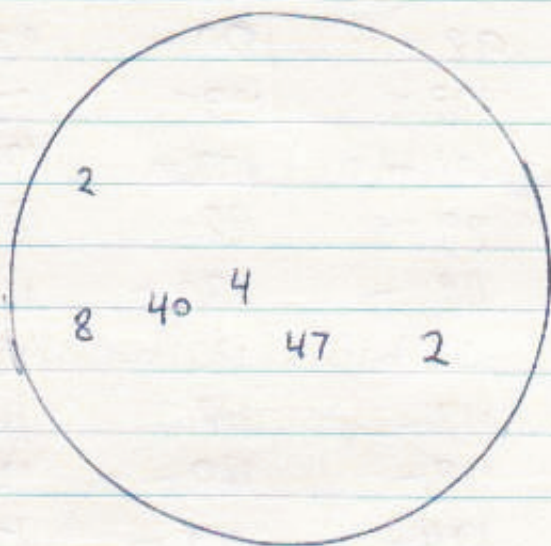
433 IE2 1830-2035 / 8-9-F / 5MB / Minnowbrook,
Saturn, Spica, Echo, Pegasus 1-1

✓ CN-III Oh 30^m W.

24/25

43325

~1600-~1615 / 8-3-F / SMB / Surveyor ? / - / SS2:



F 6
S 103
R 163

4833M2

0040-1410/10-3-F/ JMB/ Spica, Echo, Pegasus (M₄7s) 1-1

VSO-I: Extremely surprised for the clear break.

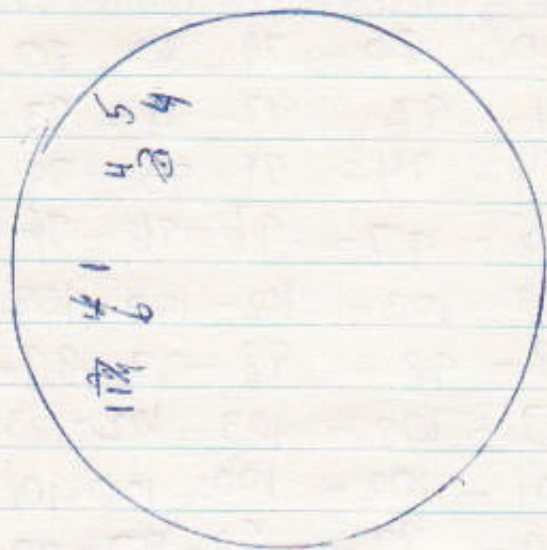
	1250	1300	1310	1320	1330	1340	1350
NO	71-	71-	71-	71-	71-	71-	71-
V372	79-	80-	80-	79-	80-	80-	81-
361	92-	91-	92-	92-	91-	93-	94-
LP	93-	94-	94-	94-	93-	94-	94-
1U	95-	95-	97-	96-	96-	96-	97-
MX	103-	103-	103-	102-	103-	102-	103-
NV	99-	98-	98-	98-	97-	99-	98-
KS	103-	103-	102-	103-	102-	103-	103-
T	101-	101-	102-	100-	100-	101-	100-
2	90-	89-	89-	90-	90-	90-	89-
HO	120-	118-	118-	118-	118-	119-	119-
1Y	121-	121-	122-	122-	122-	121-	122-
AN	119-	119-	119-	119-	119-	119-	119-
MR	121-	120-	121-	120-	120-	120-	119-
NP	123-	123-	123-	123-	123-	123-	123-
AH	13.6 ₂ -	13.7 ₂ -	13.7 ₂ -	13.6 ₀ -	13.8-		13.5-
V360	129-	128-	129-	130-	130-	12.9 ₀ -	130-
NQ	127-	128-	127-	127-	127-	127-	127-
6	108-	107-	107-	107-	107-	107-	108-
V351	88-	88-	90-	89-	89 ₀ -	89-	90-
T	105-	104-	104-	105-	105-	105-	104-
AI	13.2-	13.4-	13.5-	13.4-	13.4-	13.4 ₀ -	13.4-

$$\begin{array}{r}
 1 \\
 22 \\
 \times 7 \\
 \hline
 154 \\
 - 1 \\
 \hline
 153 \\
 \hline
 153 \text{ v} = 153
 \end{array}$$

8

25/26

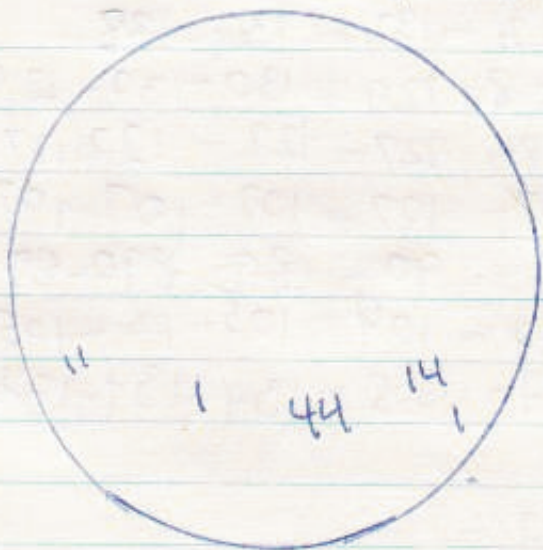
43349 1310-1329 2-f/5MB/Voyager1-SS2.



G = 5
 S = 27
 R = 77

25/26 night was cloudy

43355. 26/27 ~1300-~1330/3-f/5MB/Surveyor 2/Vic/SS2.



G 5
 S 71
 R 121

4836M2. Another surprise - clearing / 100-0215 / 3-10 / -f / ⁹
 JMB / Spica - Eald - / VSO-I:

	120	130	140	150	0200	
V3M0	72 -	72 -	71 -	71 -	72 -	CN 5 - Dome 2.5
V372	81 -	81 -	81 -	80 -	80 -	
V361	92 -	92 -	92 -	93 -	93 -	
LP	93 -	93 -	95 -	95 -	94 -	
U	96 -	97 -	96 -	97 -	97 -	
MX	103 -	102 -	103 -	103 -	103 -	
NV	98 -	97 -	97 -	97 -	98 -	
KS	103 -	102 -	103 -	101 -	101 -	
T	99 -	98 -	99 -	98 -	98 -	
2	88 -	90 -	90 -	90 -	89 -	

HU	118 -	117 -	119 -	121 -	120 -	
IY	120 -	121 -	121 -	123 -	123 -	
AN	118 -	119 -	120 -	118 -	118 -	
MR	120 -	122 -	121 -	121 -	121 -	
NP	123 -	124 -	125 -	123 -	123 -	
AH	129 -	129 -	131 -	130 -	129 130 -	
V360	131 -	130 -	130 -	131 -	130 130 129 128 129 -	
NQ	125 -	126 -	127 -	127 -	127 -	
6	106 -	107 -	107 -	106 -	107 -	
V351	87 -	87 -	88 -	88 -	89 -	
AI			135 -	135 -		

102 var = 16 14 .

43375 27/28/

~1300-

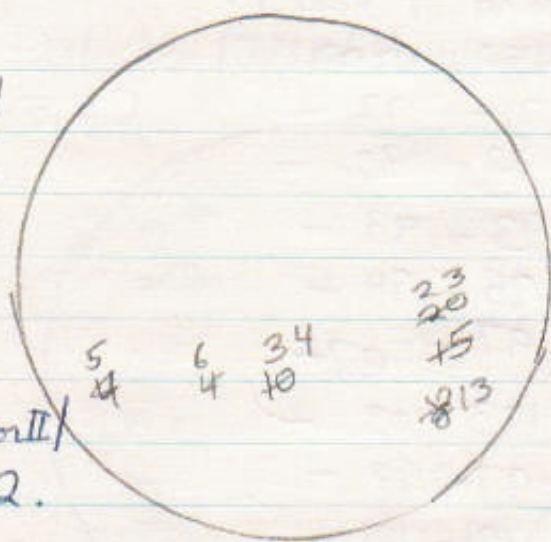
~1330/

3-f/

JMB/

Surveyor II/

-/SS-2.



G 5

G-Econd.

S 81

R 131

43382. 1815-1930/3-F^m/JMB/ Saturn's finder, M Minnowbrook,
A. Spica-Echo, Syncom -II, Amalthea, Pegasus-1/

CN-I: 40-23-6 at 1900/

J CN-III 0130^m W.

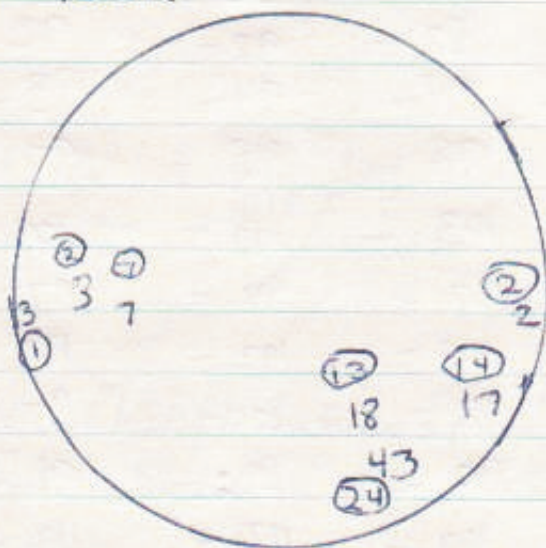
	239	0240	0250	0300	0310
NU0672	71 -	71 -	71 -	71 -	72 -
V37281	80 -	80 -	80 -	82 -	81 -
V36193	92 -	92 -	92 -	92 -	93 -
LP 95	94 -	94 -	94 -	93 -	94 -
IU 98	98 -	98 -	98 -	97 -	97 -
MY 103	103 -	103 -	103 -	103 -	102 -
NU 97	97 -	97 -	97 -	97 -	98 -
KS 103	102 -	102 -	102 -	102 -	103 -
T 97	98 -	100 -	97 ✓	97 -	97 -
2 89	90 -	89.2 -	91 -	90 -	90 -
HU 120	119 -	118 -	119 -	120 -	120 -
IY 123	123 -	122 -	121 -	121 -	121 -
AN 119	118 -	117 -	119 -	119 -	119 -
MR 121	120 -	120 -	121 -	120 -	120 -
NP 125	124 -	126 -	123 -	126 -	126 -
AH 129	128 -	129 -	131 ✓	129 -	129 -
V360129	129 -	130 -	129 -	129 -	129 -
AI 134	133 -	132 -	133 -	132 -	132 -
NQ 127	128 -	127 -	127 -	127 -	127 -
Van AM6	107 -	107 -	107 -	107 -	107 -
V351	88 -	88 -	88 -	89 -	89 -

4339M3. 0215-0335/9-6-F - very damp! / JMB / (Saturn) (Mabk)
Echo, Spica, Syncom II, Amalthea Pegasus.

CN-5. Dome 2.

VSO-I : = V5var = 1719

43405. 28/29/1510 ~ - 1530 ~ / 9-f / JMB / Surveyor II,
Voyager / -1552.



with Surveyor

G 7

S 93

R 163

with Voyager
(circled nos.)

G 7

S 6563

R 133

434152. 1615-1700 / 9-f / JMF, B / Surveyor II,
Alphecca, Saturn, Minnowbrook (Pgs, Sp-Echo)
Duane Richards / Moon. View of MMT. Sun.

4342E3. 1825-1930 / 7-fm / JMB / see above, Pegasus
as main inst. | - | CN-I: 16 31 40 23 23a
5 5 6 5 4 ✓

✓ CN-III: 0h 20m SW.

4343E4. ~ 2015-2035 ~ / 7-6-3-fm / JMB / See above | - |
Eyepiece test.

12 79

4344M5. 0115 to 0300 / 8-Fm / SMB / -Pegasus, Spicat Echob, etc /
- / VSO-I:

	130	140	150	200	210	220	230
NUON	71-	71-	72-	73-	73-	72-	74-
V372	80-	81-	80-	82-	80-	80-	82-
V361	91-	91-	90-	90-	90-	90-	90-
LP	94-	93-	94-	93-	93-	93-	93-
LU	98-	96-	96-	97-	97-	97-	96-
MX	102-	103-	103-	103-	103-	102-	103-
NU	98-	97-	98-	98-	100-	100-	101-
KS	103-	104-	103-	103-	102-	103-	102-
T	101-	100-	99-	98-	101-	100-	98-
Z	90-	90-	90-	90-	89-	89-	88-
HU	120-	119-	120-	119-	120-	119-	119-
LY	121-	124-	123-	122-	122-	123-	123-
AN	119-	117-	117-	119-	120-	119-	119-
MR	119-	119-	119-	120-	119-	119-	119-
NP	123-	123-	124-	124-	126-	125-	123-
V360	129-	128-	130 ₁ -	131 ₁ -	130 ₂ -	129-	129-
NO	126-	127-	126 ₁ -	126 ₂ -	126-	126-	127-
6	107-	107-	107-	107-	107-	107-	107-
V351	89-	91-	90-	89-	89-	90-	90-
TTow	104-	104-	105-	105-	104-	104-	104-
					RWAur		109-

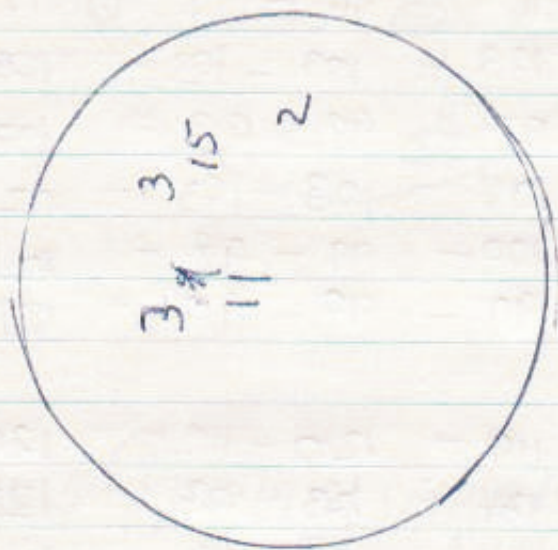
141024 = 1260 1859 previous
errors
corrected

29/30.

43455. ~1330-1345[~]/2-F/JMB/Voyager etl-/attempt at SS2.

434652. ~1630-1700[~]/2-3-F/JMB/Voyager|-/SS2 attempt.

*434753. 1705-1735/2-F/ven of JMB/VOYAGER|-/



G 5
S 34
R 84.

SS2 reading obtained as sun peered through clouds just before sunset.
Beautiful sunset seen through Voyager.

12 79

#4348 E 1055 PM to 1245 am / 7 fm / JMB / Minnow
brook, Saturn, Spica - Echo, ~~the~~ Procyonae / - / USO-I:

	1100	1110	1120	1130	1140	1150	1200	1210	1220
Or: NU	71-	71-	71-	72-	72-	71-	71-	71-	71-
V372	79-	79-	79-	78-	79-	80-	80-	80-	80-
V361	91-	90-	92-	91-	90-	90-	92-	90-	90-
LP	95-	93-	94-	94-	94-	94-	94-	94-	94-
10	96-	97-	96-	96-	96-	96-	96-	97-	96-
Mx	100-	102-	103-	101-	102-	103-	102-	102-	102-
NU	100-	102-	102-	101-	102-	101-	101-	102-	102-
KS	103-	103-	103-	103-	103-	102-	103-	103-	103-
T	101-	101-	101-	100-	101-	100-	102-	101-	101-
2	89-	89-	89-	88-	89-	89-	89-	89-	89-
40	119-	119-	118-	120-	120-	119-	119-	120-	119-
AM	119-	118-	119-	119-	120-	119-	118-	120-	120-
MR	119-	119-	118-	118-	118-	117-	117-	118-	119-
6	107-	106-	106-	106-	106-	106-	107-	107-	106-
V351	88-	89-	90-	90-	89-	88-	90-	88-	89-
MTTau	10.3-	10.4-	10.4-	10.4-	10.3x10.4-	10.3-	10.3-	10.4-	

$$\begin{array}{r} 16 \overline{) 19} \\ \underline{16} \\ 3 \end{array}$$

$$\begin{array}{r} 5 \\ 16 \\ 9 \\ .24 \end{array}$$

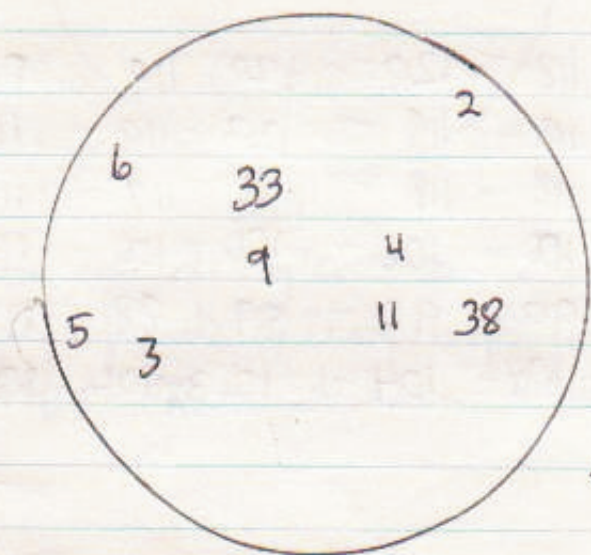
1239
144 var = 2003 reached
this month.

4349M5 0450 to 0635/4½-10-f/5MB/ Pegasus
 (Catherd) - /
 ✓ CN-III: 1h 20^m E.
 M80.

CN-I: 40 23 23a all 6 ✓

USO-I: R G B: 6.0 =
 T G B: 10.5 4-

4350S. 30/31/1345-1405/7-F/5MB/Surveyor 32/-/SS2.



G 9
 S 20 11
 R 20 1

all groups
 should be
 ↓ down a bit

4351EP2 1825-1835/7-fm/Campbell Ave/
 - 1 Jutial Moon just e of Aldebaran. Occ'n. ~ 2 hrs.
 earlier.

4352EM3/2390-0030/7-Fm/5MB/Spica-Echo, etc/-/

17

USO-I:

1150

: 12 79

↑
4352EM3

71 -	1200	72 -	nu Ori
82 -	80 -		V372
91 -	91 -		LPV361
92 -	93 -		H LP
96 -	96 -		A IV
103 -	103 -		MX
98 -	101 -		MV
103 -	1003 -		KS
100 -	100 -		T
100 90 -	989 -		2

bright moon in
Taurus may
have brightened
the estimates
of the starred
variables.
Therefore they are
given : 's.

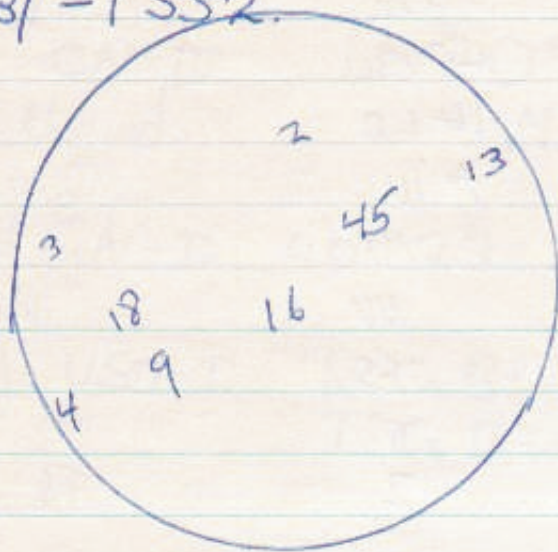
119 -	119 -	HU
121 -	122 -	LY
117 -	118 -	9N
118 -	118 -	MR
123 -	123 -	NP
128* -	127* -	A H*
129* -	129* -	V360*
125* -	123* -	np*
107 -	107 -	6
9121 -	91 -	351

But why just these?
Bright ones
seemed unaffected.
Are these faint
ones bluer?

40 var = 2043

12 79

43535. Dec 31/32/1255-1315 138-F/3MB/Surveyor,
Mira 3/-/SS2.



G 8
S ~~12~~
DAS 110
R 190

435452. 1330-1445/8-3-F/3MB/Mira 3, Surveyor,
Pegasus/Dan Stowell/Sun. No prominences. KPN 0.

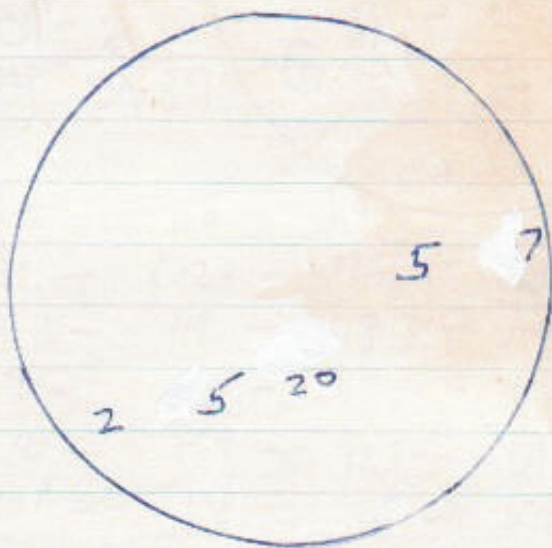
4355E3 191850-1945/6-Fm/3MB/Saturn, Minnowbrook,
Pegasus, Spica, Echo/D. Stowell/Venus, M31,
& UMi, etc, Moon.

4356E4 2240-2330/5-Fm/3MB/Saturn, etc. see above.
plus Syncom and Skylab / - / Mars, Jupiter, Moon, etc.

4357M5 0240v-~0255/4-Fm/3MB/s Saturn (etc) / - /
Lunar halo. Mars, Jupiter + Saturn. No ring.

01 80

MCM LXXX



G	5
S	39
R	89

JANUARY

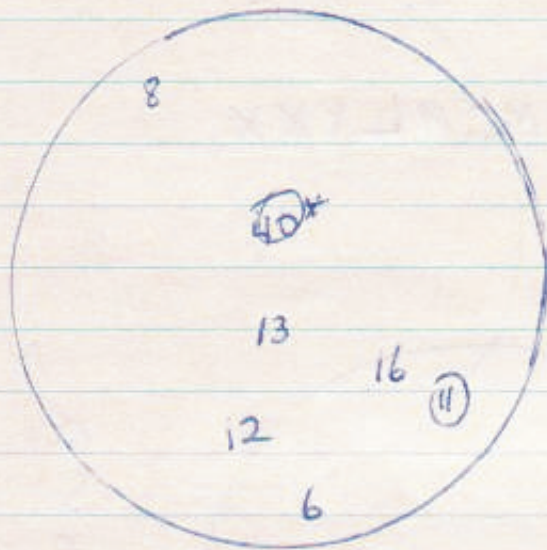
4358S. See above. 1/2 / ~1300-~1315 / 3-F / SMB / Surveyor 2 / - / SS-2.

4359ES2 1700-1720 / 2-F / JF von SMB / - / - / Sunday.
H

4360M 000-0200 / 3-F / SMB / Saturn (Spica, Echo, Pegasus)
Abacus 3, Abacus / - / Moon, Mars, Jupiter, Saturn.
Soft thin ring visible. M42 of course.

2/3

4361S. 1445-1505 / 8-F / JMB / Surveyor II / - / SS2.



* a very complex group
w/ much perumbra
activity.

G	7
S	106
R	176

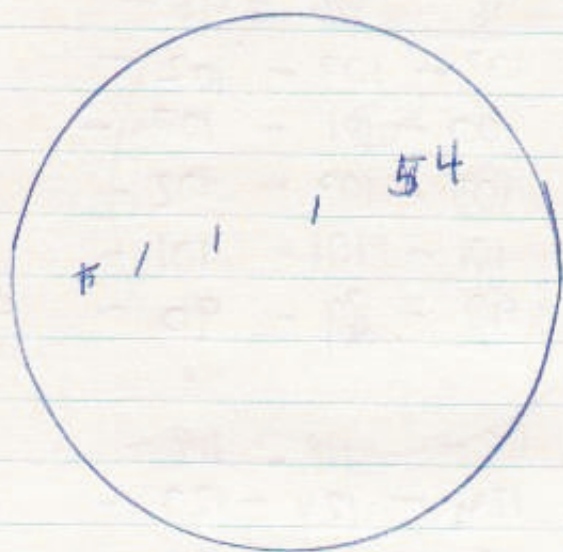
1200 - 1330 / 8-f / JMB / Saturn, Spica - E210,
Pegasus / # Vic / + VSO-I:

	1220	1230	1240	1250 1300	1300	01 1320 ⁸⁰
4362 M2 NU	71-	71-	71-	72-	71-	72-
V372	82 ₀ -	81-	82 ₃ -	80-	81 ₀ -	81-
4364	90-	90-	90-	90-	90-	90-
LP	94-	93-	94-	93-	92-	92-
IU	96-	96-	96-	96-	96-	95-
MX	102-	102-	103-	103-	102-	103-
NU	100-	100-	100-	101-	100-	101-
KS	103-	103-	103-	103-	102-	102-
T	101-	101-	101-	101-	101-	101-
2	89-	89-	90-	89-	90-	90-
HU	118-	118-	119-	119-	119-	119-
IY	124 ₀ -	124-	123 ₀ -	124-	123-	12.5 ₀ -
AN	119 ₀ -	118-	118 ₀ -	119-	120-	119-
MR	117-	116 ₀ -	117 ₀ -	117-	118-	118-
NP	122-	122-	123-	123-	122 ₀ -	121 ₀ -
6	108-	108-	108-	108-	108-	10.9-
V351	91-	91-	91-	91-	89-	90-
T Tan	104-	104-	105-	105-	104-	104-

18x6 = 108 var.

Mars
Jupiter
Saturn: thin ring

43635 3/4/1700-1720/3-F/ El Cen Mall/cam ad astrae
from Puert Photo 1-1 SS: 2.



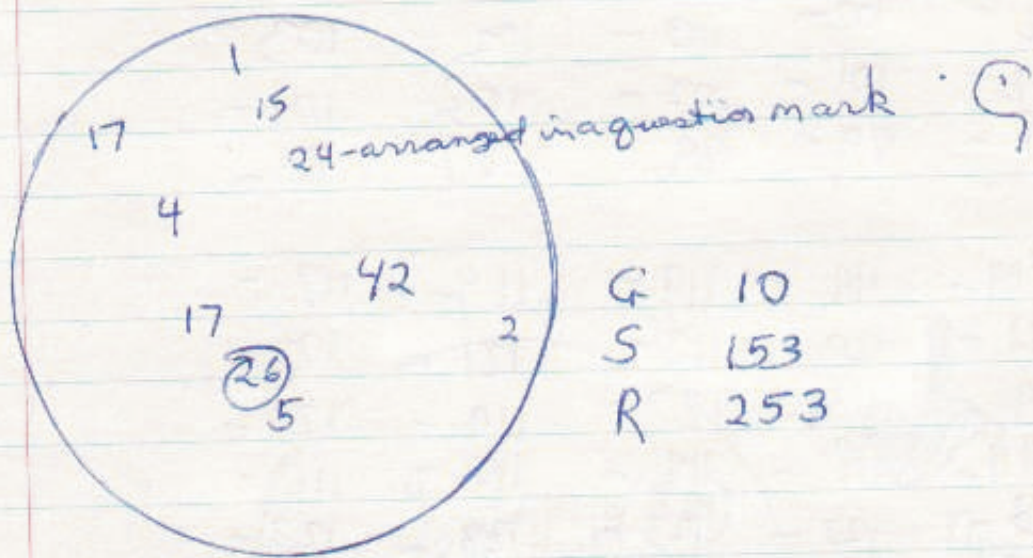
G = 4
S = 8
R = 48

Cond. poor.

4364M2 0130v-~0200/3-F/3MB/Saturn 1-1
Mars, Jupiter, Saturn, Moon. Saturn:

01 80

43655. 4/5/1510-1700 / 8-3-f/5MB/ Surveyor II/
 (Saturn, Minnowbrook, Pegasus, Spica-Echo)/
 Dr. Bok / SSI:



checked by

Paul Bok

4366.E2. 1830-2130/10-7-fm / ^(JMF) SMB / (Surveyor 2; etc) Pegasus,
 (Saturn) Spica - Echo, Minnowbrook. 1 Pr Bet,
 830 840 850 900 910 at first /
 OR No 71- 71- 71- 71- 72- VSO-I:
 V372 80- 81- 80- 80- 80-
 V361 89- 90- 90- 92- 91-
 LP 94- 94- 94- 94- 94- CN-3: -
 10 97- 96- 95- 96- 97- 100m W-
 MX 102- 103- 102- 102- 103-
 NU 101- 102- 101- 101- 102-
 KS 102- 102- 103- 102- 103-
 T 102- 101- 102- 102- 101-
 2 89- 89- 89- 89- 89-

HU 80 119- 119- 119- 119- 118-
 1Y 121- 120- 112- 121- 122-
 AN 117- 119- 120- 119- 120-
 MR 119- 118- 119- 117- 116-
 NP 123- 123- 123- 123- 122-
 nq 123/124- 127- 126- 126- 12.7₃-
~~123~~ 128₃- 128₃- 128- 12.7₃- 12.7₃-
 No 6 128- 129- 128- 107- 107-
 V351 910- 90- 89- 90- 90-
 TTau 10.4- 10.4- 104- 104- 105-

Nova Cygni 1978 12.6: -- 102 var = 210
 SS Cyg 12.0 --

L 01 80

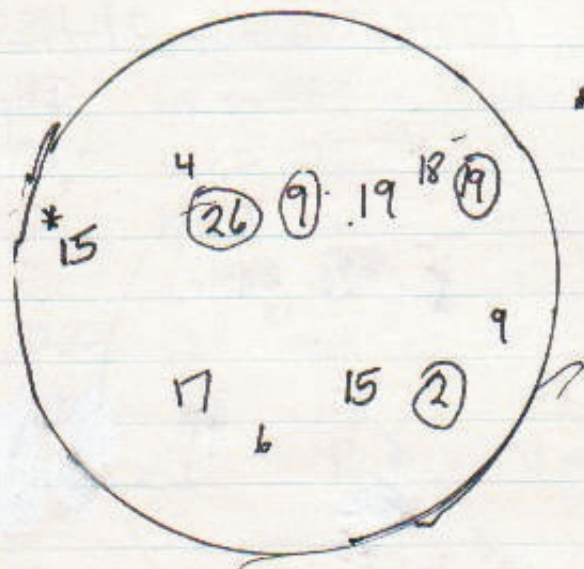
*4367M3.

0140-0215/3-f (high cl) m/ JMB/ Saturn,
 Minnowbrook, Spica (Echo), Pegasus + finder,
 M. OM1 Camera 1-1 Saturn, Mars, Jupiter.
 ? rings.

0200 CN-I: New Area, No. 101. to 5th mag!

4368S.

516 10000-0020_m/3-f/JMB/ Surveyor 2/-/ SS2.



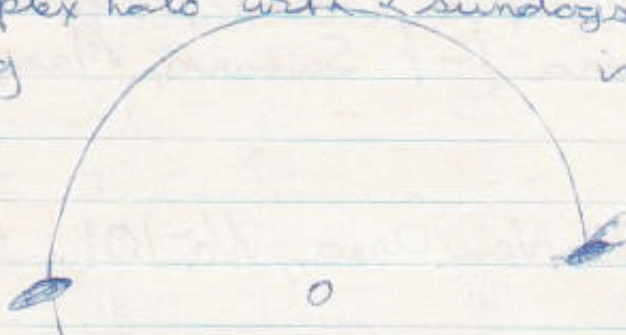
This is a drawing
 of the complex penumbral
 group I've been
 reporting.
 (cf 43615.)
 At Bare penumbral
 spots only, it seems.

G 12
 S 159
 R 279

436952

1670-1730 / 3-f / 5MB / Ricoh camera / - /

E1 Complex halo with 2 sundogs appearing & differing in intensity at different times.



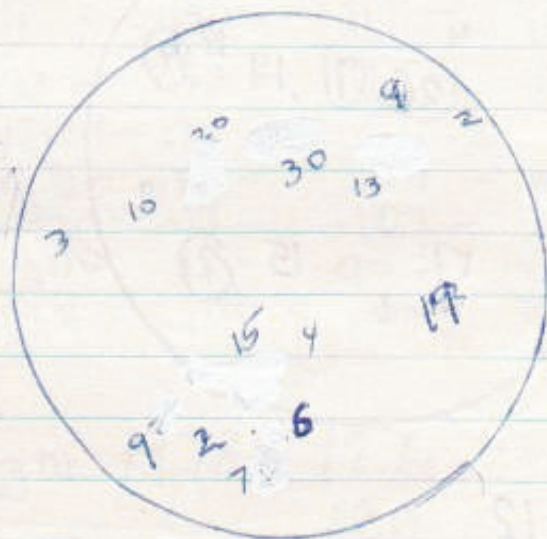
4370M

~0200-0230 / 3-f / 5MB / Pegasus, Olympus, Minnowbrook, MA Saturn / - / Moon, Mars, Jupiter, Saturn w/ trace of ring, maybe.

43715

6/7 / 0000-0030 / 5MB / Surveyor 2 / - / SS-II / 3-2-f

Clearings provided chance for "G" readings



G 14

S 149

R 289

Jun 6/7/ +02200 - 0100^{3 to} / 3-F / JMB / Spica-Echo, 27
 Olympus, Syncom III, / - / USO-I:

1120 1130 1140 1150 1200 01 80

437294

Ori:NU8	72 -	71 -	71 -	71 -	71 -
V372	80 -	81 -	81 -	82 -	82 -
V361	92 -	92 -	92 -	92 -	91 -
LP	96 -	95 -	93 -	95 -	94 -
IU	96 -	96 -	96 -	97 -	96 -
MX	103 -	102 -	102 -	103 -	103 -
NV	101 -	99 -	100 -	98 -	98 -
KS	103 -	103 -	103 -	102 -	103 -
T	101 -	100 -	98 -	98 -	98 -
#2	90 -	89 -	90 -	89 -	100 -

HU	118 -	119 -	118 -	118 -	119 -
IY	122 -	122 -	121 -	121 -	122 -
AN	118 -	118 -	117 -	118 -	117 -
MR	119 -	119 -	119 -	119 -	119 -
NP	123 -	125 -	126 -	127 -	127 -
V360	129 -	128 -	131 -	129 129 -	121 -
AH	131 -	131 -	131 -	131 -	132 -
np	123 -	124 -	125 -	124 -	123 -
#6	108 -	108 -	108 -	108 -	108 -
V351	91 -	91 -	91 -	91 -	90 -

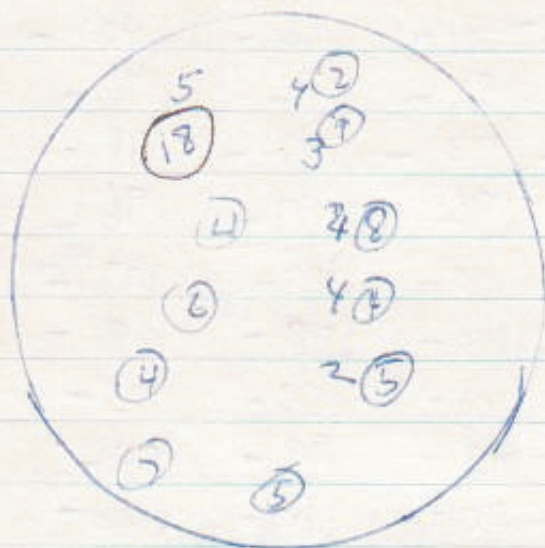
Syncom III first light. M42. Redwork.

100var = 310

CNS Dome?

43735

7/8/1220+245/2-F/JMB/Vejur/-/SS2



G 6

S 22

R 82

for 437352:

G 11

S 72

R 182

Also:

437432.

~1330 to ~1400/3-F/JMB/Vejur/-/ See
 circled no's numbers above for new & more
 accurate reading for today.

437523

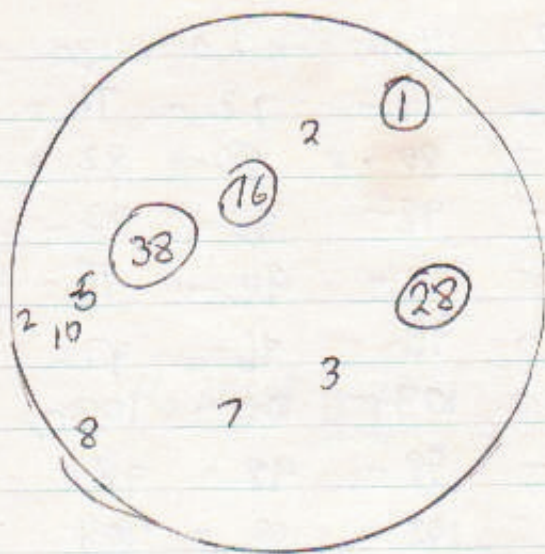
1930-2100/3-2-F/JMB/Little Joe, Syncom III/Vic/
 Test. Syncom III has marginally brighter &
 fuller image than Little Joe.

43762

8/9/1115 ~ ~ ~ ~ ~ 1145/3-F/JMB/Surveyor 2/-/SS2.

See p. 297.

01 80



G 11
S 120
R 230

* 4377E2 1835 to 1920 / 8-9-F / Duane's house /
16-inch reflector, Newtonian f/4 / - Duane /
M31, M42.

VSO-I:

SS Cygni 11.9 -
V1500
Cygni 14.9 -

2 var = 3/2

4378^FM3 See p. 30. / 2245-0015 / 10-3-1-F / JMB /
(Saturn), Minnowbrook, Pegasus, Spica, Echo /
- / 5 VSO-I:

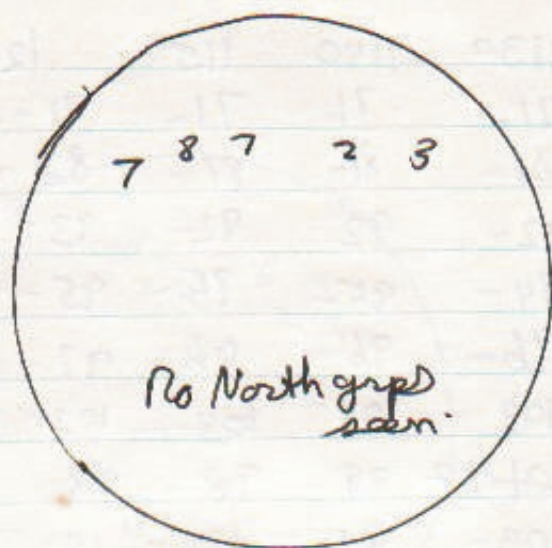
Jupiter:
Saturn:
Mars.

	1100	1110	1120	1130	1140
NU Ori	71 -	71 -	72 -	71 -	71 -
V1372	79 -	80 -	80 -	82 -	81 -
V361	93 -	92 -	92 -	93 -	92 -
LP	94 -	93 -	94 -	95 -	95 -
IU	95 -	96 -	96 -	97 -	97 -
MX	103 -	103 -	103 -	103 -	102 -
NU	98 -	99 -	98 -	98 -	98 -
KS	102 -	102 -	102 -	104 -	102 -
T	90/100 -	101 -	101 -	99 -	98 -
2	90 -	89 -	89 -	90 -	90 -

HU	117 -	118 -	117 -	117 -	117 -
IY	121 -	121 -	121 -	121 -	121 -
AN	119 -	120 -	119 -	119 -	119 -
MPMR	120 -	121 -	121 -	120 -	119 -
NP	126 -	127 -	126 -	127 -	126 -
AH	129 134 - 129	134	133 -	133 -	133 -
V360	129 -	129 -	129 -	130 -	129 -
NP	125 -	126 -	126 -	126 -	126 -
#6	107 -	107 -	107 -	107 -	107 -
V351	91 -	90 -	91 -	90 -	90 -

$$100 \text{ var} = 412$$

01 80



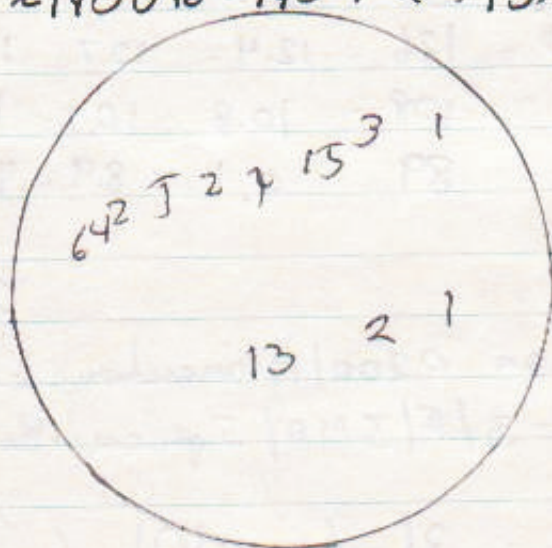
G 5
S 27
R 77

43795. 9/10/1215-1230/1-F/JMB/Voyager/-/
SS 2. This reading obtained through a 5 or
10 sec or 15 second lighting of cloud. Will be
done again if weather improves.

P.S. It didn't.

Night of 9/10 cloudy.

43805. 10/11/ ~1400 to ~1430/ 2-F/JMB/Voyager/-/SS 2:



G 12
S 58
R 178

	1120	1130	1140	1150	1200	1210	1220	1230	1240	1250
On: NU	71-	71-	71-	71-	71-	71-72-	72-	71-	71-	
V372	82-	81-	81-	81-	82-	81-82-	83-	82-	82-	
V361	92-	92-	92-	92-	93-	93-94-	93-	92-	92-	
LP	94-	94-	95-	95-	95-	94-95-	95-	95-	95-	
10	96-	96-	96-	96-	97-	96-97-	96-	96-	97-	
MY	103-	103-	103-	103-	103-	103-103-	102-	103-	102-	
NU	98-	101-98	98-	98-	98-	98-	99-	98-	98-	98-
KS	102-	103-	101-	102-	102-	102-101-	103-	102-	102-	
T	103-	102-	101-	101-	102-	101-101-	102-	102-	101-	
2	89-	88-	89-	89-	89-	90-	89-	89-	89-	90-
HU	118-	118-	117-	118-	118-	117-118-	119-	119-	118-	
1Y	122-	121-	121-	121-	121-	120-120-	121-	121-	121-	
AN	119-	119-	119-	119-	120-	120-	119-120-	119-	118-	
MR	120-	122-	121-	120-	121-	121-	120-121-	121-	121-	
NP	124-	126-	123-	127-	123-	124-124-	124-	123-124-	124-	
A4	129-134-	134-	135-	133-	132-	131- 132	¹³¹⁻¹³¹⁻	132-	130-	
V360	129-	129-	130-	130-	130-	129-129-	129- ¹²⁶	130-	129-	
N9	126-	125-	126-	124-	127-	126-	127- 124	124-	124-	
#6	107-	108-	108-	10.8-	10.7-	107-	108-	108-	107-107	
V351	89-	91-	89-	9.1-	8.9-	9.1-	90-	91-	90-	91-

200 Var = 612

*4381 EM2.

2310 to 20 0200 | miraculous clearing, so

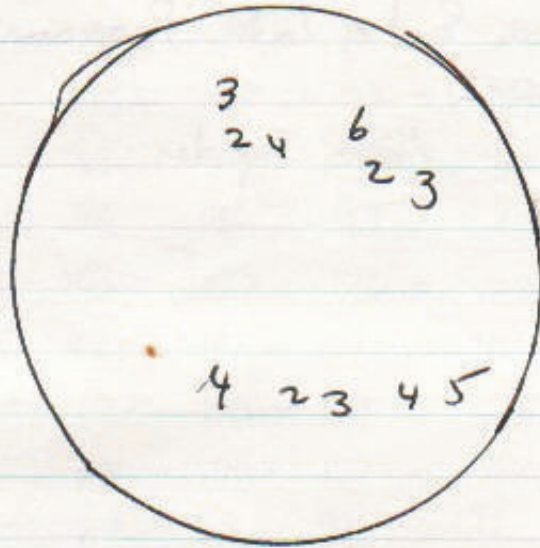
3-10-8-10-3/F/SMB/Spica-Echo, Maia | -/

VSO -I:

CN-I: 31-6, 101, 6.

Inaugural session + 1st light for Maia!

01 80



G 11
S 38
R ✓ 148

43825 11/12/1430-1450/1-1.5-f/JMB/Voyager1-SS2.

4383M. 071230
 NU 71-
 V37282-
 V361 92-
 LP 94-
 IU 96-
 MY 102-
 NU 98-
 KS 101-
 T 9100-
 Z 90-

0030-0330 intermittent 3-9-f / SMB /
 Spica-Echo, later Pegasus / Smokey. /
 USO-I:

Mars, Jupiter.

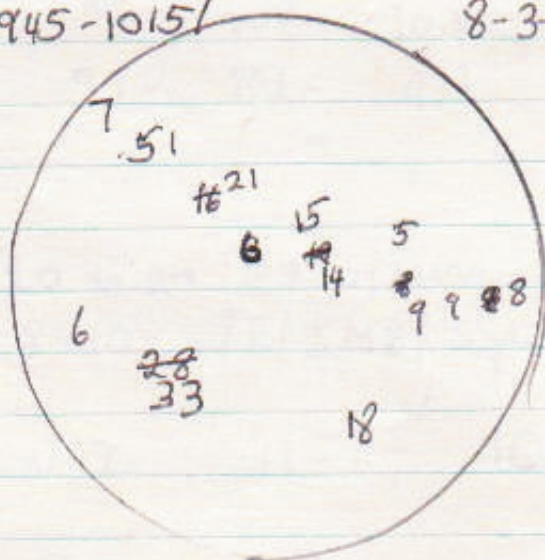
15 var. = 627

0305
 HU 118-
 CY 12.1:-
 AN 11.8:-
 MR 11.9:-
 NP 12.4:-

CNS Dome? ✓

43845. 12/13/0945-1015/

8-3-f / SMB / Surveyor 1-1
 SS2.



G 13
 S 202
 F 332

+4385E2 / 1820-2230 / 8 3-10-1-F / JMB / Syncom III,
 Spica-Echo / - /

: 81 80

	2050	2100	2110	2120	2130	2140	2150	2200	2210	2220
NU	71	71	71	72	71	72	72	72	71	72
V372	80	79	79	78	79	79	80	79	79	81
361	92	94	93	93	94	94	94	94	94	
LP	94	95	95	94	95	96	95	95	95	
U	96	96	96	96	97	97	97	97	97	
Mx	102	102	103	103	102	103	102	103	103	
NU	99	99	98	97	98	98	97	97	10.05	
KS	103	103	103	103	104	104	103	103	10.3	
T	102	101	101	100	100	100	101	100	100	
Z	90	89	89	89	91	91	91	91	90	
HU	119	117	118	118	118	118	118	118		
LY	123	121	120	122	120	120	121	121		
AN	117	118	119	119	119	118	118	119		
MR	120	120	121	120	120	121	121	120		
NP	123	126	126	127	127	126	126	125		
AH	135	135	135	136	134	133	134	132		
V360	129	129	129	129	129	128	127	128		
NP	127	127	127	127	127	126	126	125		
6	102	108	107	107	107	108	107	108	107	
VSI	90	90	90	90	91	91	89	90	89	
AI	133	136								

SSCyg 12.1 =

Nova Cyg 78 12.5 =

✓ CN-III. 2100m W.

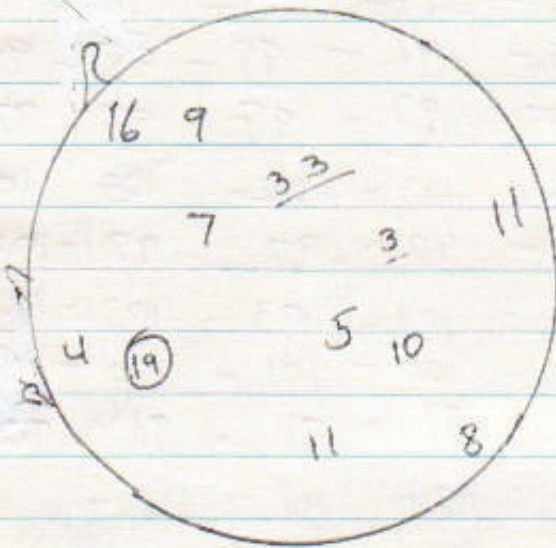
CN-I: 40 5 ✓
 16 6 ✓
 31 6 ✓

The Real "first light"
 for Syncom III.

178 van = 805

13/4

43865. 1435-1530 / 10-3-F / 3MB / Surveyor 2 / - /
SS-2.



G 12
S 136
R 256

The sun is
"kind of" disorganized
today - no clear
N-S alignment

01 80

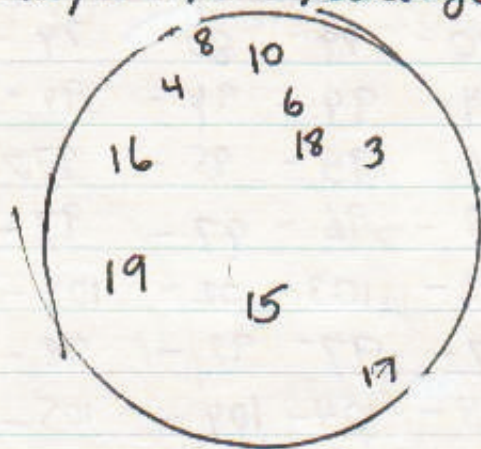
	800	810	820	830	840	850
NUONI	72 -	71 -	72 -	71 -	72 -	72 -
V372	78 -	80 -	79 -	80 -	79 -	79 -
V361	93 -	94 -	94 -	94 -	94 -	93 -
LP	94 -	96 -	95 -	95 -	97 -	96 -
W	97 -	97 -	96 -	97 -	97 -	97 -
MX	103 -	102 -	103 -	102 -	103 -	102 -
NV	98 -	97 -	97 -	97 -	98 -	98 -
KS	103 -	104 -	104 -	104 -	105 -	104 -
T	99 -	99 -	101 -	100 -	101 -	100 -
Z	91 -	91 -	90 -	91 -	91 -	90 -
HU	89 119 -	118 -	118 -	119 -	118 -	118 -
LY	120 -	120 -	120 -	120 -	121 -	121 -
AN	119 -	119 -	119 -	118 -	119 -	118 -
AMPYR	122 -	120 -	119 -	119 -	120 -	119 -
MNP	126 -	125 -	123 -	126 -	127 -	126 -
AH	135 -	135 -	134 -	135 -	134 -	134 -
V360	129 -	131 -	130 -	130 -	130 -	130 -
ND	126 -	127 -	126 -	126 -	126 -	125 -
#6	107 -	107 -	108 -	107 -	108 -	108 -
V351	90 -	90 -	90 -	90 -	90 -	90 -

$$122 \text{ ver} = 927$$

SS Cyg 12.1 - -
 N Cyg 78 12.8 =

EN3: 14 00m

43885. 14/15. / 1025-1045 / 3-F / JMB / Surveyor 2 / - / SS2.



G	10
S	116
R	216

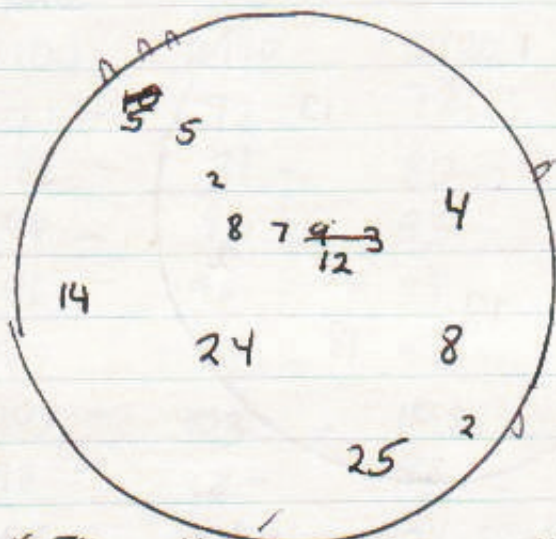
-rain-

4389EP2 2200-2210 / 3-F / JMB / - / - / general.

4390M3. 0030-0100 / 3-F / JMB / - / Saturn / - / Mars,
Jupiter, Saturn.

15/16.

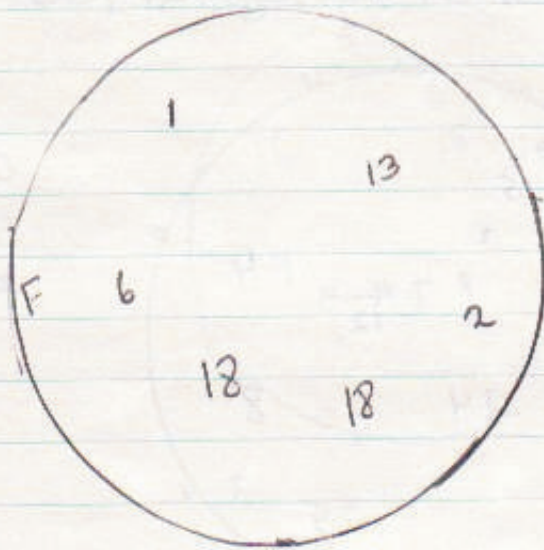
43915. $\approx 1100 - \approx 1140 / 3 - f / 3MB /$ Surveyor 2 / - / SS-2.



G = 12
S = 116
R = 236

4392EM2. 1040 1050 1100 1110 1120

NU	71-	71-	71-	71-	71-	✓ CN3 1400m
V372	82-	81-	82-	81-	80-	
V361	94-	94-	93-	94-	94-	2230 to 0100 /
LP	95-	95-	95-	95-	94-	10-f / 3MB /
W	96-	97-	96-	97-	96-	Echo, Spica,
MX	103-	103-	103-	102-	103-	Syncom III /
MV	98-	98-	98-	98-	100-	- /
KS	102-	103-	103-	102-	103-	VSO-I, ↗ CN-3.
T	101-	100-	99-	97-	99-	
#2	89-	90-	89-	89-	90-	
HU	119-	119-	118-	118-	118-	
IY	121-	122-	121-	121-	122-	
AN	120-	120-	120-	118 ✓	119-	
MR	120-	119-	120-	120-	120-	
NP	124-	123-	124-	123-	125-	
PH	130-	131-	130-	131-	131-	
V360	129-	131-	131-	130-	131-	
np	1027-	127-	128-	126-	126-	100 variables = 1027.
#6	108-	107-	108-	108-	108-	
V351	91-	90-	88-	90-	91-	



Cond: G

G	6
S	58
R	118

43235. 16/17/1145-1200/8 10 f/3 MB/Surveyor 2/-/SS2.

*4394E2 16/17/1800 1830-2000/10-, -f/J South CN3
side | Syncom III | - | CN-III: 1^h00^m W. ✓

SS Cys 8.8 ✓

first to inform
AAUSO of this!

01 80

4395 E3. 2040-2145 / 10-, f/5MB/Spica, Echo / - /
VSO-I.

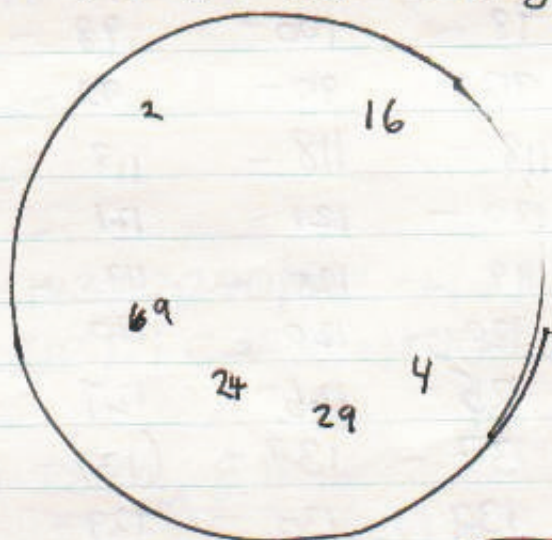
	2050	2100	2110	2120	2130
VNU	71 -	71 -	72 -	72 -	73 -
V372	81 -	81 -	81 -	80 -	81 -
361	93 -	94 -	93 -	93 -	94 -
LP	95 -	96 -	96 -	95 -	96 -
IU	96 -	97 -	97 -	97 -	97 -
MX	103 -	103 -	103 -	102 -	103 -
MV	97 -	98 -	98 -	98 -	98 -
KS	103 -	103 -	103 -	104 -	103 -
T	98 -	98 -	100 -	98 -	98 -
2	92 -	90 -	90 -	90 -	90 -
HU	118 -	118 -	118 -	118 -	117 -
IY	120 -	120 -	121 -	121 -	120 -
AN	118 -	119 -	120 -	119 -	119 -
MR	121 -	120 -	120 -	120 -	121 -
KSNP	126 -	125 -	126 -	127 -	126 -
AH	136 -	137 -	137 -	(137 -	(137 -
V360	130 -	130 -	130 -	129 -	129 -
NP	125 -	127 -	127 -	127 -	126 -
#3	108 -	107 -	107 -	107 -	108 -
V351	89 -	91 -	90 -	90 -	90 -

↑
SSGy 8.9 - 100 var = 1127

43965M4. 2330-0000 / 10-F / JMB / (Echo, Spica, Mubte) /
Saturn / - / Mars, Jupiter, Saturn. No ring.

4397M5. 0500-0610 / 10-F / S. CN3 site / Syncom 3 / - /
CN-3: 0h 50m. ✓

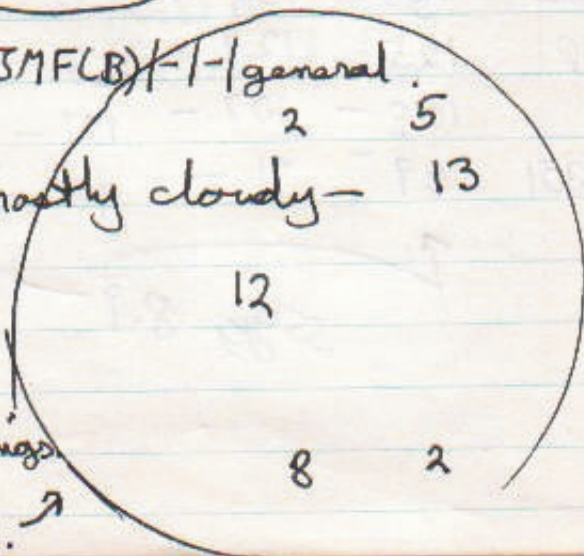
4398S. 17/18. 0050-0130 / 3-f / JMB / Surveyor / - / SS-2



G 6
S 84
R 144

4399EP2. ~ ²¹1930 - ~ ²¹1940 ~ ~ ~ / 2-f / JMF(LB) / - / - / general.

- This night was mostly cloudy -



G 6
S 24
R 100

4400S. 18/19. 0²⁵1230-1245 / U of A /
Vger / - / SS 2. contingency readings.

4401S2. 1650-1705 / U of A / Vger / →
• Jacqueline Elliott / - / SS-2.

0010
0000

	2210	2220	2230	2320	2330	2340	2350	0020
NU	71 -	71 -	71 -	72 -	71 -	71 -	71 -	71 -
V372	81 -	81 -	80 -	82 -	82 -	81 -	82 -	80 -
361	95 -	94 -	93 -	92 -	94 -	93 -	94 -	94 -
LP	95 -	95 -	96 -	96 -	95 -	95 -	95 -	94 -
10	97 -	96 -	96 -	97 -	96 -	97 -	97 -	96 -
MX	103 -	103 -	103 -	102 -	102 -	103 -	103 -	103 -
NU	97 -	100 -	100 -	98 -	99 -	98 -	98 -	97 -
KS	101 -	101 -	102 -	102 -	103 -	103 -	102 -	102 -
T	102 -	101 -	100 -	101 -	100 -	100 -	100 -	98 -
2	90 -	91 -	89 -	90 -	89 -	90 -	89 -	89 -
HU	117 -	118 -	117 ¹¹⁵	118 -	118 -	118 -	117 -	118 -
14	120 -	120 -	119 -	120 -	121 -	121 -	120 -	121 -
AN	119 -	120 -	118 -	119 -	120 -	120 -	119 -	118 -
MR	120 -	120 -	119 -	120 -	121 -	121 -	121 -	119 -
NP	126 -	127 -	126 -	126 -	126 -	125 -	127 -	127 -
VAH	133 ¹³⁵	135 -	134 -	134 -	135 -	133 -	134 -	134 -
V310	128 -	129 -	129 -	129 -	129 -	128 -	128 -	129 -
NP	124 -	124 -	124 -	127 -	124 -	125 -	126 -	127 -
#6	108 -	108 -	108 -	109 -	108 -	108 -	107 -	108 -
V351	9.0 -	9.0 -	9.0 -	9.1 -	9.0 -	9.0 -	9.0 -	8.9 -

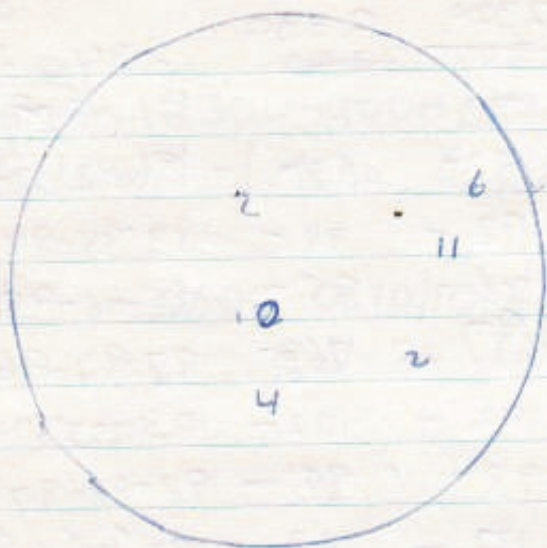
↑
2317

4402EM3.

2100-0030 int / TO-3-f / JMB /
 Saturn, Mnbk, Echo + Spica /
 Howard, Vic / USO-I.
 M42.

2 Ori 1.1 -
 η Gem 3.4 -
 γ Cas 2.5 -

203 ver: 1330



G 6
S 35
R 95

44035. 19/20h/200 to ~1215/3-f/SMB/Vgen/-/SS 2.

44044EP2. 1930~--1940/2-f/SMB/-/general.

4405M3. 0040-0200/210-3-f/SMB/Echo and Spica)

-/ VSO-I:										
	0100	0110	0120	0130	0140	0105	0115	0125	0135	0145
NU	72-	72-	71-	71-	71-	HU	118-	118-	118-	117-119-
V372	81-	80-	82-	81-	82-	1Y	122-	123-	122-	122-122-
V361	93-	94-	93-	94-	93-	AN	120-	120-	120-	119-119-
HLP	95-	94-	95-	95-	95-	NPR	121-	119-	121-	120-120-
10	96-	95-	96-	97-	97-	NP	125-	124-	126-	126-125-
MX	103-	102-	103-	103-	103-	AH	131-	131-	132-	133-131-
NV	98-	98-	98-	98-	98-	V360	128-	130-	130-	130-129-
KS	102-	10.2-	103-	102-	102-	NQ	124-	124-	125-	124-124-
T	101-	10.0-	100-	102-	98-	AH#6	108-	108-	108-	108-107-
2	90-	9.0-	90-	90-	90-	V351	90-	90-	90-	90-89-

♂_{1,4,7} of Echo & Spica

100 Var =
1430

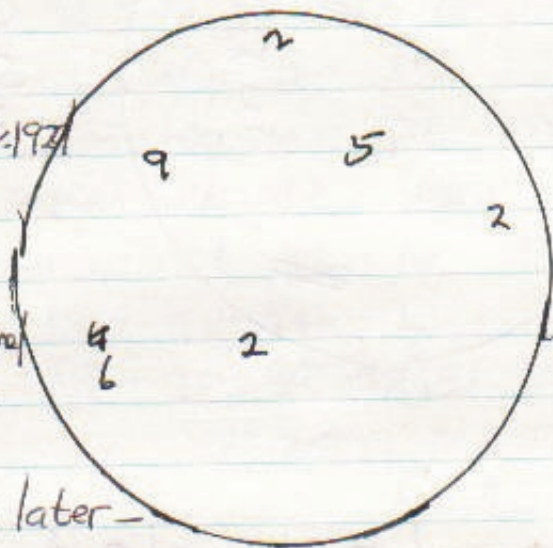
01 80

20/21

44065 1000-1015/3-F/3MB/\$ Voyager/-ISS2.

4407EP2 ~1915-~1921

9-F/Wof
Tucson/
-Jacqueline
general.



G = 6
S = 26
R = 86

-cloudy later-

See p 46. → 700 710 720 730 740 750 705 715 725 735 745 755

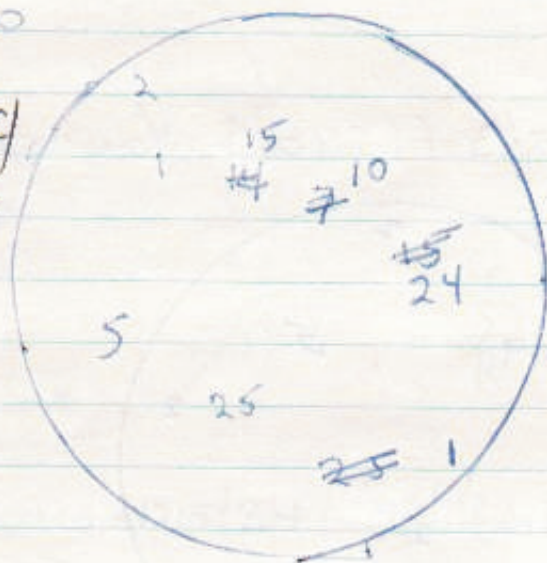
NV	71	72	71	71	71	71	HU	118	119	118	118	119	118
V3R	79	80	80	80	79	80	X	12.12	120	120	121	120	121
V36	95	94	93	93	94	94	AN	12.02	119	119	119	119	119
LP	96	96	96	95	95	96	MR	12.12	121	120	120	120	120
U	96	97	97	97	97	97	NP	12.4	124	125	126	124	124.5
MX	103	102	103	103	103	103	AT	13.5	136	13.31	135	134	134.3
NV	99	99	100	99	100	98	V30	129	130	130	130	131	130
ES	103	103	102	101	104	103	NP	126	125	127	127	125	126
T	98	98	98	98	98	100	6	108	108	108	108	108	108
2	100	100	100	90	90	90	V35	189	89	91	90	89	89

TTan
SSCyg 92- 125 var =
WCyg 5.9- 153.55

- 1/1/0/5 - contingency sample during haze at 1500.
1500-1530

44085.

21/22/3-f/
JMB/SUR-
VEYOR-II/
-1SS-2.



E cond.

1520~

G=8

S=83

R=163

4409E2.

1900-2000 | 3-f | JMB | Echo SPICA | - |
VSO-I. For results, please see p. 45.

From almost all clouds, the sky became
pt d around 7 to enable these observations
to be made.

4410E3.

2240-2335 | 3-10-f | JMB | Echo, Spica |
- | VSO-I,

- Sky clears just as I am about to
go inside - so - see p 47.

01 80

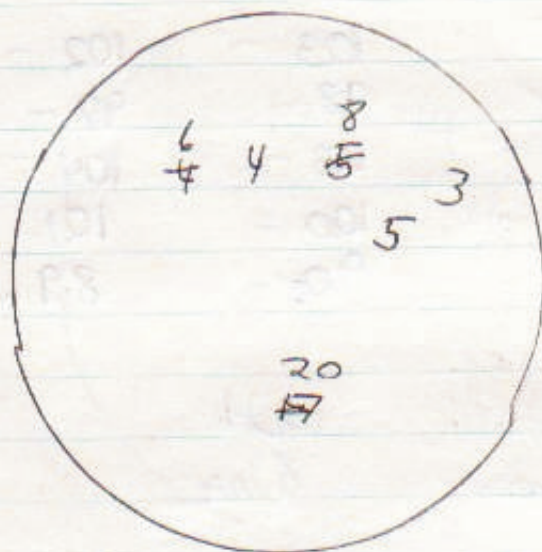
	1050	1100	1110	1120		1055	1105	1115	1125
DU	71-	71-	72-	71-	HU	117-	118-	118-	117-
V372	80-	82-	82-	82-	11	120-	122-	121-	121-
V361	93-	94-	93-	93-	AN	118-	119-	119-	119-
LP	96-	95-	95-	95-	MR	120-	119-	120-	119-
10	97-	96-	96-	96-	NP	125-	126-	123-	124-
MX	102-	102-	102-	102-	AH	134-	134-	134-	135-
NV	98-	100-	97-	98-	V360	131-	130-	130-	130-
KS	104-	103-	103-	103-	NP	126-	124-	124-	125-
1	100-	100-	98-	99-	6	108-	108-	108-	108-
2	89-	89-	90-	90-	V351	90-	89-	89-	1089-

Rubber

12.2 - TT Time

10.5-105- 105

84 vars = 1639.



Good cond.

G 6
S 46
R 106

4411S 22/23/ ~1300-~1315/ 3-f/ JMB/ ~~A~~ Voyager.
- | SS 2.

4412E2 10.18.55 1915 / 7f / Ajo Way, just W of
 Tucson / Ganymede / - / VSO-I:
 SS Cyg 9.3: -

4413E3 2140-2245 / 7f / Steward Observatory /
 James m., 21" rd / w / 8" rr / Greg, Ray White,
 others

VSO-I: M42

	950	1005	1030
NOOfi	79 72 -	72 -	71 -
V372	94 79 -	79 -	81 -
V361	95 94 -	94 -	95 -
HLLP	95 -	95 -	96 -
10	96 -	98 -	97 -
MX	102 -	103 -	102 -
NV	98 -	98 -	98 -
KS	10.3 -	103 -	104 -
J	103 -	100 -	101 -
2	9.0 -	9.0 -	8.9 -

with
James

with
8" rr

with
James

30 Jan = 1669

01 80

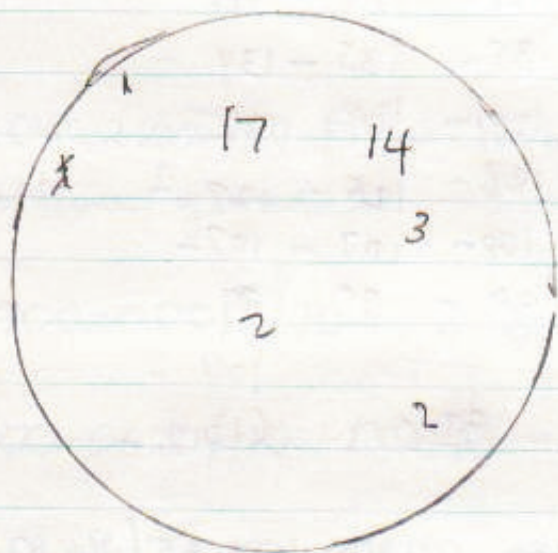
4414E4. 2330-0000/10-F/JMB/ Maia/-/
 CN-I: Area 102 4th mag. Test.
 with newly arrived erecting prism.
 Stunning performance for such a telescope.

4415M5. 0500 to 0620/10-F/JMB/
 Maia, Pegasus/-)

CN-III: 1h 00m E. ✓
 several clusters in Sco region

CN-I:

40	6 ^v	0610.
23	6 ^v	↓
23a	6 ^v	



G	6
S	39
R	99

4416S. 23/24/ Wed/ ~~1700-18~~ ~ 1630-1700 ~ /10-F/JMB/
 Surveyor/-/SS2.

	1150	1200	1210	1220	1230
NUOH	72-	72-	72-	71-	72-
372	81-	82-	81-	81-	82-
361	94-	95-	94-	95-	94-
LP	96-	96-	96-	96-	95-
1U	97-	97-	96-	97-	97-
MX	103-	103-	103-	102-	103-
NV	98-	98-	97-	97-	97-
KS	104-	103-	103-	104-	103-
T	99-	98-	98-	98-	98-
2	89-	90-	89-	90-	90-
HU-KS	118-	120-	118-	118-	119-
IF	121-	121-	121-	122-	122-
AN	119-	119-	118-	119-	119-
MR	119-	121-	120-	120-	120-
NP	124-	125-	125-	125-	126-
AH	131-	132-	135-	135-	134-
V360	129-	129-	129-	129-	129-
NP	124-	126-	126-	125-	127-
6	108-	108-	108-	107-	107-
V351	90-	89-	89-	89-	89-
			TT car	104-	
			AI Ori	13.4-	

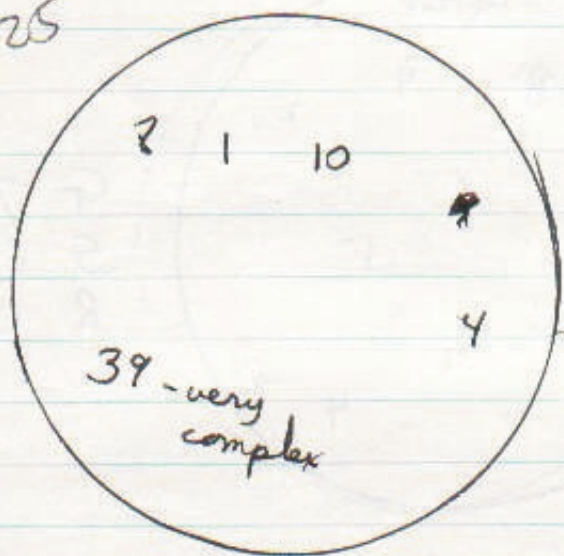
447E2. TWed/1900 to 2340-0135/8-10-F/3MB/

Echo, Spica, Maia | - | ~~SS-2~~. VSO-I. 103 var

Also, VC Van 7.7' + use of
Maia w/ Edmund
28 Kellner!
= 177.

01 80

24/25



G	5
S	62
R	112

4418S. Thursday / nm 1400-1430nm / 10-f / JMB / Surveyor 2 / - /
SS2. _{24/25}

4419 E2. ~2040-2100nm / 7-f / Westward Look Resort / - /
Nancy Bethune / general.

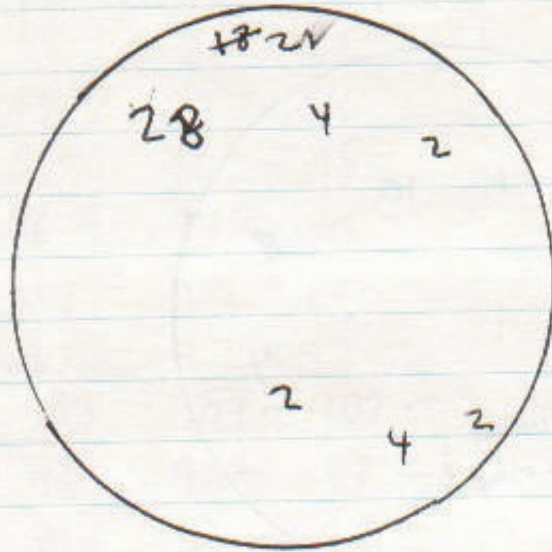
4420 E3 2300-0000^{int} / 10-f / JMB / - / - / general.

4421 M4. 0500-0620 / 10-f / JMB / - / - / Syncom III / - /

CN-III: 0h 55^m. E. ✓

CN-I: 40' 23" 23^a - 6

1620



G 7
S 63
R 133

44215. 25/26/ 1610-1630/10-f/SMB/Surveyor 1-/
SS2.

4423E2. 1900-2000/ 7-f/South CN3 side + vicinity/-
Syncom III/ - One den on road/

CN3 0h 35m. -
~~GN~~

4424M3. 0500-0630/10-f/SMB/ Pegasus 1-1

CN-I

40 }
23 } 6 ✓
23a }

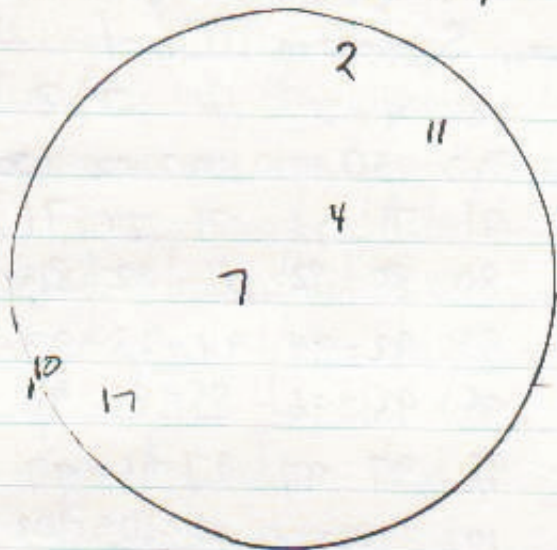
CN3 1h 00m. -

VSO-I: RAB 6.1 ✓ 2 var 1774
TAB 10.2 ✓

26/27

01 80

44255. 12:30-1245 / 8-10-f / JMB / Surveyor / - / SS-2.



G	6
S	51
R	111.

442652. ~1500-1515~ / 10-f / JMB / Surveyor / Jacqueline Elliott / Sun.

*4427E3 1830-2330. / 8-fm/JMB(Surveyed), Miria,
Echo-Spica, Syncom III / - /

	1	2	3	4	5	6	7	8	9	10	11
	710	730	740	750	1010	1020	1030	1050	1100	110	1120
NO	72-	71-	71-	71	72	71-	71-	71-	71-	71-	71-
V372	81-	79-	80-	80-	82-	81-	82-	81-	81-	80-	82-
V361	93-	94-	93-	92-	94	94	93-	93-	93-	93-	92-
LP	95-	95-	95-	95-	96-	95-	95-	96-	95-	95-	95-
W	96-	96-	96-	97	97	97	96-	97	96	97-	97-
MY	103-	103-	102-	102-	102	103-	103-	102	102-	102-	102-
VV	101-	101-	101-	101-	101-	101-	101	102	102	102-	102-
KS	103-	102-	103	102-	103-	102-	102-	103-	103	103	103-
T	102-	102-	100-	102-	101-	101-	101	102-	103	102-	102-
E 2	89-	89-	89-	89-	88-	89	89-	89-	89	89-	89-
HO	118-	119-	119-	118-							
W	121-	122-	122-	122-							
AN	120-	118-	118-	119-							
MR	119-	118-	119-	118-							
NP	123-	123-	123-	123-							
AH											
V360											
NP	125-	124-	124-	125-							
6	108-	108-	108-	108-		108-	108-	109-			
351	89-	89-	90-	90-		90-	90-	89-	89-	89-	89-

CN III 04 5^m W.

15/Jan = 1925

01 80

VSO-I: see p 54.

CN-III: see p. 54.

LPO-I: first of the Venus photographs. 5 sec.
Camera on Saturn's pier.LPO-I: occ'n. of Aldebaran. Not timed
but observed successfully through
Saturn. Very dramatic disappearance
of a light bulb-like star. Ingress
spectacular - did not wait for egress on
bright side.R Approach photographed through
Mira 3 and Olympus.

LPO-I: Mars + Jupiter photo.

4428M4. 0455-0530/3-f/3MB/Syncom III, Spica
(Echo, etc)/-/CN3: 0^h 10^m ✓

VSO-I: TAB 10.0 -

RGB 6.1 -

2 var = 1927

27/28

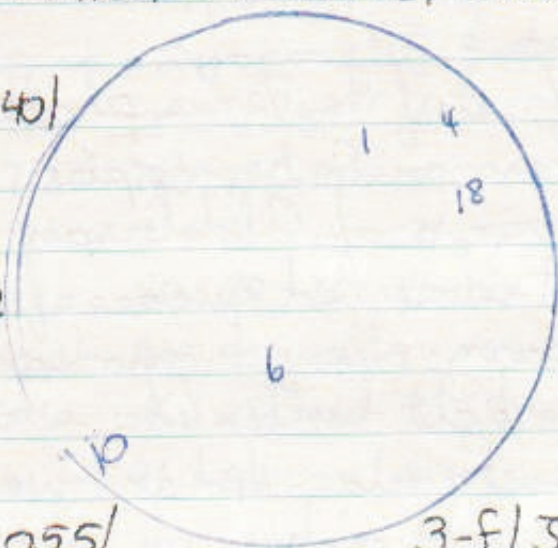
44295. ~1400-1415 / 3-F / JMB / Surveyor II / - / SS2

4430E2. ~1830-1840 /

3-F / JMB /

Spica / - / Dr.

Levi / KPNB



G 5

S 39

R 89

*4431E3 2040-2055 /

1010 1020 1030

NV 71 - 71 - 72

37281 - 81 - 82 -

361 92 - 94 - 92 -

LP 94 - 95 - 95 -

10 96 - 96 - 97 -

MX 102 - 103 - 102

NV 100 - 100 - 102 -

KS 104 - 103 - 103 -

T 101 - 103 - 102 -

2 92 - 89 - 89 -

3-F / JMB / Ursa Major II,
Dschubba / - / first
light for these 2
instruments.

30 vers = 1957.

*4432E4 2200-2240 / 3-2-F / JMB / Spica, Echo,
first light for Ursa Major II / - / VSO-I.

01 80

RGB6061-

TGB 10.1-

VBoo 8.0-

3 var = 1958. 1960.

4433M5 0500-0620/3-2-f/ JMB/ Pegasus/ funder/-/

CN-I: 40 23 23a 6 ✓

CN-III 0h 50^m E, cloud-hopping -

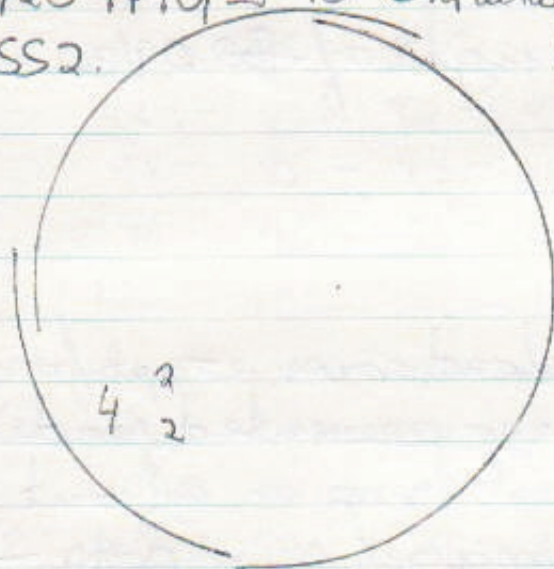
VSO-I: see above.

4434S 28/29/19⁰⁷25-19⁰⁷40/I-10 entrance, S Side Wilmat/
Vgenl - 1SS2.Conditions: 2-f,
(Poor)
↓

G 3

S 8

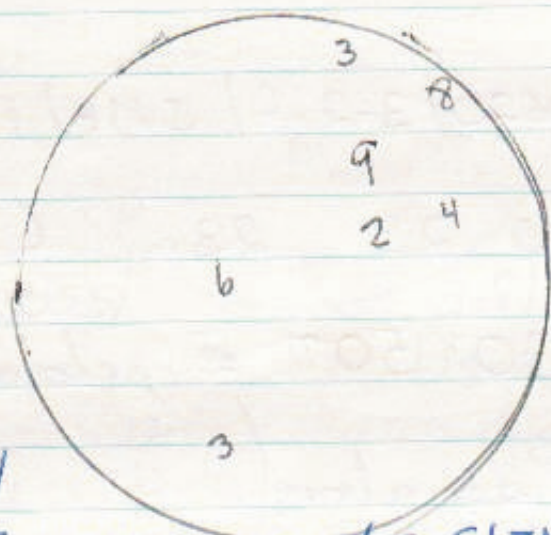
R 38



Contingency Reading

- The night of 28/29 was cloudy, except for the start. -

4435E. 1830-1900/3-f/7750 Oakwood/Billy/general-Venus.



G	7
S	35
R	105

4436S.

29/30/

~~29~~ ~ 1330-~1345/3-f/3MB/Surveyor/-/SS-2. windy.

- The night of ~~29/30~~ 29/30 was cloudy. -

- Total cloud cover except for a few minutes of haze prevented reading for first time in about 9 1/6 uninterrupted readings of sunspots -

- Night of 30/31 completely cloudy -



G 5
S 49
R 90

31/32
4437S. 30/31 // 1140v - v 1200/2-F/SMB/ - actually
drizzling during reading - / - / S Vger
SS 2. - cleared at ~ 0055. So;

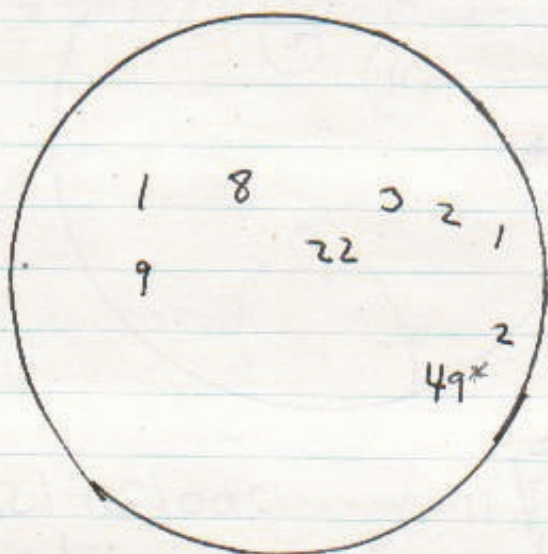
0100-0210/4-fm/SMB/ Pegasus / - / VSO-I.

4438M2.

	110	120	130	140	150	200
NV	71-	71-	72-	72-	72-	71-
V372	81-	81-	81-	82-	82-	81-
V361	90-	92:-	93-	93-	91-	92-
LP	94-	94-	95-	94-	94-	94 - 72 var:
U	96-	96-	96-	96-	96-	96-
MX	102-	102-	102-	102-	103-	103 - <u>2032</u>
NV	101-	101-	102-	102-	102-	101-
KS	104-	103-	104-	104-	104-	104-
T	102-	102-	101-	102-	103-	103-
2	988-	89-	89-	89-	88-	89-

t
V351 96- 90- 89- 89- 89- 89-
T Tau 105- 104- 104- 104- 104- 104-

FEBRUARY



F
G 9
S 97
R 187

44395 1/2 | 1450-1515/9-F | Vail School | Vger, Tasco rr | Michael Genie
+ ~30 children, 6th gr, + Dan. Stowell | Sun.

44402. See chart above. ~1600-~1615/10-F | JMB | Surveyor |
- | SS2.

4441E3. 1900-2005/6 fm | JMB, earlier S. CN3 site | Syncom
- |

CN3 0430m =

Venus photo. w/ Hercules.

4442M4. ~0130-~0200/6-7 fm | JMB | Saturn | - |

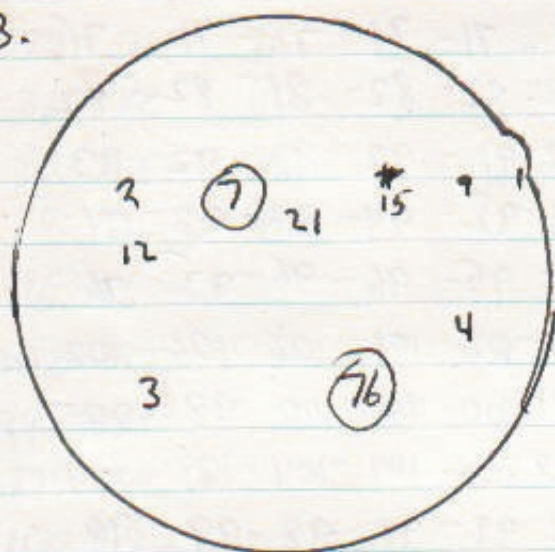
Mars: Polar Cap + other surface detail

Jupiter One moon very close to planet, casted shadow on disk.

Saturn: no ring spread.
Moon.

L 02 80

44435. 2/3.



G 10
S 150
R 250

1125-1140/10-f/5MB/Surveyor 1-1SS2.

44445

1745-0345 110-f-8fm/KAVO: 24-36 Schmidt
, Granymade/ Green flash effects.

Search for Comet Bradfield.

Successful. Photos through Schmidt.

5 min 10 min Blue + 5 min 10 min

5 min 15 min Red. 15 min 2 min

through 4" finder and

Olympus.

NU	2100	19
V372	71	72
V381	82	81
LP	94	94
LD	95	95
LD	96	97
MX	102	102
NU	100	98
KS	103	103
T	101	102
2	89	90

} with Granymade.

9" refr. ginder scope, Kitt Peak Wt S Obs.

	920	930	940	950	1000	1010	1020	1030	1040	1050
AU Ori	71-	71-	71-	72-	71-	71-	71-	71-	71-	71-
V372	82-	81-	82-	82-	82-	82-	82-	81-	82-	82-
V361	92-	92-	92-	92-	92-	91-	92-	92-	92-	93-
LP	94-	95-	95-	95-	93-	95-	94-	94-	93-	94-
IU	96-	96-	96-	95-	95-	95-	96-	96-	95-	96-
MX	102-	102-	102-	102-	102-	102-	102-	102-	102-	102-
NV	98-	97-	97-	98-	99-	100-	98-	100-	98-	98-
KS	104-	103-	103-	104-	103-	103-	104-	104-	104-	104-
T	98-	98-	98-	98-	98-	99-	98-	98-	99-	98-
#2	90-	90-	89-	89-	90-	89-	90-	90-	90-	89-
HU	117-	117-	119-	119-	118-	118-	118-	119-	118-	118-
LY	123-	121-	121-	123-	123-	122-	121-	123-	122-	123-
AN	119-	119-	117-	117-	117-	117-	118-	117-	117-	117-
MR	119-	116-	116-	118-	117-	116-	116-	116-	117-	118-
NP	123-	123-	122-	123-	125-	133-	123-	124-	123-	124-
AH	129-	132-	132-	134-	134-	133-	132-	132-	132-	132-
V360	129-	130-	129-	130-	129-	131-	130-	129-	129-	129-
NP	124-	124-	123-	124-	124-	124-	124-	125-	125-	125-
#6	10.8-	10.9-	10.8-	10.8-	10.8-	10.9-	10.9-	10.8-	10.8-	10.8-
V351.						9.0-	9.0-	9.0-	9.0-	9.0-

02 80

w. Ganymede.

1100 1110 1120 1130 1140 ✓
 71 - 71 - 72 - 71 - 71 -
 82 - 82 - 81 - 82 - 80 -
 92 - 93 - 93 - 92 - 93 -
 94 - 95 - 94 - 94 - 94 -
 96 - 96 - 96 - 96 - 96 -
 102 - 103 - 102 - 102 -
 98 - 97 - 99 - 100 -
 103 - 104 - 104 - 104 -
 99 - 98 - 100 - 99 -
 89 - 89 - 89 - 90 -
 117 - 119 - 119 - 119 -
 122 - 122 - 122 - 123 -
 117 - 117 - 117 - 116 -
 116 - 117 - 117 - 117 -
 123 - 124 - 123 - 122 -
 132 - 134 - 134 - 134 -
 129 - 130 - 131 - 131 -
 125 - 124 - 124 - 124 -
 108 - 108 - 108 - 108 -
 9.0 - 9.0 - ~~9.0~~ - 9.0 -
 89 -

Δ Ori 0.9 -
 η Gem 3.7 -

30/100
 tonight.

Ganymede saw, in one field, satellites of
 two planets: $\Theta + \gamma$. ~ 0000.

(CNS DOME 2.5 0000?)

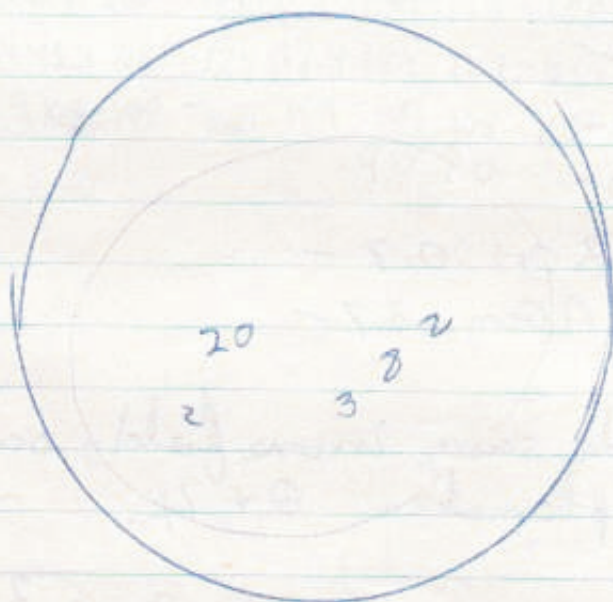
44455. 3/4/1600-~1615/ Parking Lot, USA/
Granymede / 2-f / no reading on SS2.

4446E2 ~2345-0000 / 3-f / 3MB / Granymede / - / mcom.

4447B. 1350-1405 / 9-f / Reynolds School / Vger / -
~ 30 children / Sim.

4448S2. ~~140~~ 1430-1440 / 8-f / (see 44455.) / Vger / - /
SS-2.

Feb 4/5



G 5
S 34
R 84

	1000	1010	1020	1030	1040	1050	1100	1110	1120	1130
HU	71-	71-	71-	71-	71-	71-	71-	71-	71-	71-
372	80-	80-	80-	81-	82-	82-	81-	79-	79-	81-
361	92-	92-	92-	93-	92-	92-	92-	92-	91-	93-
LP	95-	95-	94-	94-	94-	95-	94-	94-	94-	94-
10	96-	97-	96-	96-	96-	96-	97-	96-	97-	96-
MX	103-	102-	102-	102-	102-	102-	102-	102-	102-	102-
NV	102-	101-	102-	102-	101-	101-	102-	101-	102-	102-
KS	103-	103-	103-	104-	103-	103-	104-	103-	104-	103-
T	100-	101-	102-	101-	102-	101-	102-	101-	101-	102-
2	89-	89-	89-	89-	89-	89-	89-	89-	89-	89-
HU	119-	119-	119-	118-	119-	119-	119-	119-	119-	119-
LY	121-	121-	123-	121-	121-	121-	122-	122-	122-	123-
AN	119-	118-	119-	119-	119-	119-	118-	118-	118-	119-
MR	117-	118-	118-	118-	117-	118-	117-	118-	117-	117-
NP	122-	123-	122-	122-	121-	122-	122-	122-	122-	123-
AH	133-	130.5-	123-	134-	132-	132-	134-	132-	132-	133-
V30	131-	130-	131-	129-	130-	130-	130-	130-	130-	130-
NP	124-	125-	124-	124-	124-	124-	124-	123-	124-	124-
#6	108-	107-	107-	108-	108-	107-	108-	108-	108-	108-
V351	90-	89-	89-	89-	89-	89-	89-	91-	90-	90-
TTan	10.5-	104-	104-	10.3rf?	10.3-	104-	103-	103-	104-	104-

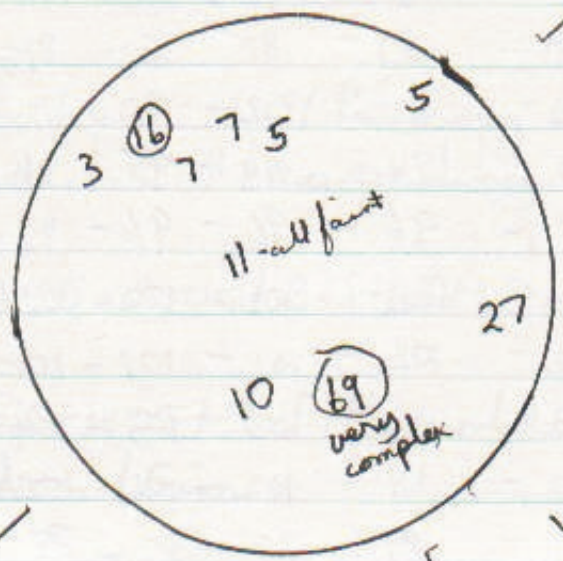
CNS ~2300
Dome 2?

210var: 511.

4449EP2 2040-~2050/7-f/U of A/ Rn Willyt + others/ -/ general.

4450E3. 2145-2345/9-8-fm/ JMB/ Spica, Echo, Minnow
brook, Saturn/ -) VSO-I. see above. Saturn.
No ring (??) Jupiter. Mars. Moon!

G 10.
S 160
R 260.



44515. 5/6/ 1330-1350/ 3-F/ 3MB/ Surveyor-II/-SS.2.

2340-0050 / 92F / JMB / Spica - Echo - 1

67

SS

VSO-I;

02 80

	1150	1200	1210	1220	1230	1240
4452E MW	71 -	71 -	71 -	72 -	71 -	71 -
M V372	80 -	82 -	82 -	82 -	81 -	81 -
2 361	93 -	94 -	93 -	93 -	93 -	92 -
LP	94 -	94 -	94 -	95 -	95 -	95 -
W	97 -	97 -	96 -	97 -	97 -	96 -
MP	102 -	103 -	102 -	101 -	102 -	10.1 -
NV	101 -	101 -	102 -	101 -	101 -	10.2 -
KS	103 -	102 -	103 -	103 -	103 -	103 -
T	101 -	100 -	103 -	102 -	10.1 -	104 -
2	90 -	89 -	90 -	89 -	8.9 -	89 -
HU	119 -	118 -	119 -	12.0 -	-	-
IY	123 -	12.4 ^{12.3} -	123 -	-	-	-
AN	11.9 -	11.9 -	11.8 -	-	-	-
MR	11.7 -	11.7 -	11.7 -	-	-	-
NP	12.2 -	12.2 -	12.1 -	12.3 -	-	-
AH			13.2 -	-	-	-
V360	13.0 -	12.9 -	13.1 -	-	-	-
DP	12.4 -	12.4 -	12.3 -	12.3 -	-	-
6	10.8 -	10.9 -	11.0 -	10.8 -	-	-
V351	8.29 -	8.9 -	8.8 -	8.9 -	8.9 -	8.9 -
TTau	10.3 -	10.3 -	10.2 -	-	10.4 -	10.3 -

100 over 611.

use same time for all readings in each set

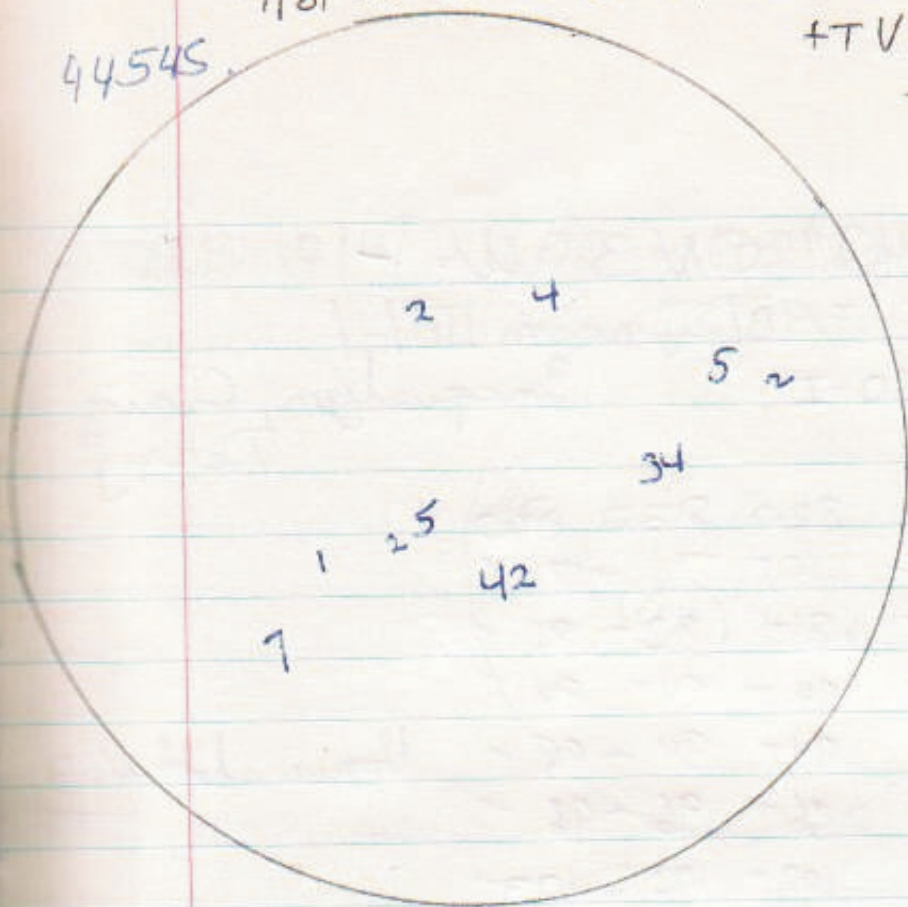
(but some times were not used.)

4453 EM 16/7/2330-0030/18-F/3MB/Spica, Echo 1-)
VSO-I.

	1140	1150	1200	1210	1220	
NU	71 -	71 -	71 -	72 -	71	
V372	82 -	81	81 -	80 -	82 -	✓
361	92 -	94 -	93 -	92 -	93 -	
LD	94 -	94 -	95 -	94 -	95 -	
10	96 -	96 -	96 -	97 -	96 -	
MX	103 -	103 -	102 -	103 -	102 -	
NU	97 -	98 -	98 -	101 -	98 -	
KS	103 -	103 -	102 -	103 -	102 -	
T	100 -	100 -	100 -	100 -	101 -	105 ver = 716
2	9100 -	89 -	89 -	89 -	90 -	
HU	118 -	119 -	119 -	118 -	118 -	
Y	123 -	124 -	126 -	125 -	123 -	
AN	119 -	119 -	118 -	119 -	119 -	
MR	118 -	118 -	118 -	117 -	118 -	
NP	122 -	122 ^{122.1} -	122 -	122 -	125 -	
AH	132 -	132 -	132 -	132 -	133 -	
V360	13.1 -	13.0 -	13.1 -	132 -	13.1 -	
NP	123 -	12.5	123 -	123 -	12.3 -	
6	108 -	108 -	11.0 -	108 -	10.8 -	
351	89 -	88 -	89 -	89 -	9.0 -	
Tau	100 -	10.4 -	10.1	10.1	10.0 -	2 rf

7/8/10-30-1500/int/10-F/KPNO/2" solar scope,
 +TV image at McMath/69
 -1SS-2.

4454S.



02 80

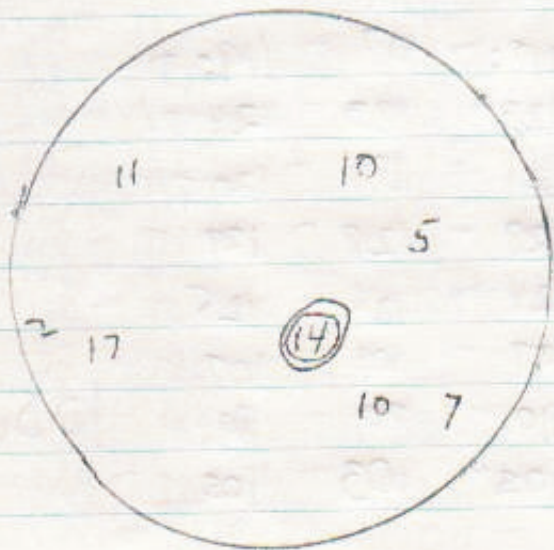
G 9
 S 122
 R 212

Plages 25
 Filaments 18
 Flares 1-?
 Prominences 4

4461E. ~2330-2345/3-f/JMB/Mintaka/-/general.

8/9/ was cloudy + raining all day + evening.

4455S. 9/10. 1540-1605 18-F/JMB/Surveyor 2/-/552.



G 2
 S 76
 R 156

4456E2. 9/10/ Oh 40^m CN3 W. -

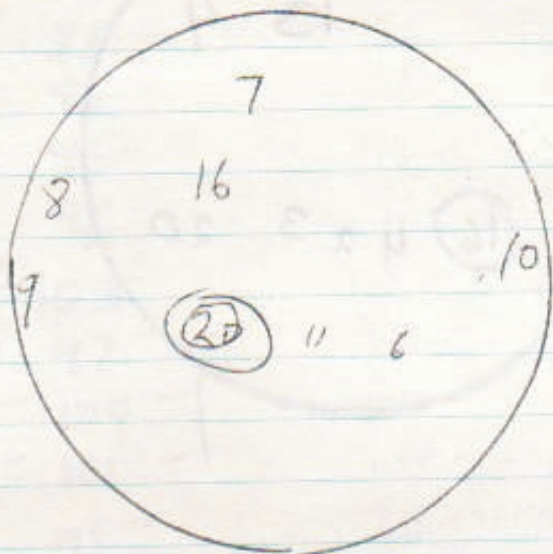
1850-2200/10-F/3MB/Syncom III/-/

CN3, USO-I:

Jacquelyn, Craig,
Terry

	800	810	820	830	840	
DUOFI	71 -	71 -	70 -	71 -	71 -	
V372	82 -	82 -	81 -	82 -	81 -	
361	94 -	94 -	94 -	94 -	94 -	
LP	94 -	95 -	94 -	94 -	95 -	Venus shot No 3
10	96 -	96 -	96 -	96 -	96 -	
MX	102 -	102 -	102 -	102 -	103 -	
MV	98 -	98 -	98 -	97 -	97 -	
KS	102 -	103 -	102 -	103 -	103 -	
T	101 -	100 -	100 -	100 -	98 -	
2	90 -	89 -	90 -	90 -	89 -	
HU	118 -	118 -	117 -	118 -	112 -	
LY	122 -	122 -	121 -	121 -	121 -	
AN	119 -	118 -	119 -	119 -	119 -	
MP	118 -	119 -	118 -	117 -	119 -	
NP	124 -	123 -	123 -	123 -	124 -	
USAH	132 -	132 -	131 -	131 -	130 -	
V380	130 -	129 -	128 -	122 -	129 -	
NQ	125 -	124 -	124 -	124 -	125 -	
6	107 -	108 -	107 -	108 -	107 -	
351	89 -	90 -	90 -	89 -	89 -	105 Ven = 820
Gamma	104 -	103 -	103 -	103 -	103 -	

4457E3. 10/11/ ~ 1600³ - ~ 1645 | 8-F/3 MB/Surveyor 1-1552.



G 8
S 87
R 167

	10/11/					
4458E2.	840	850	1110	20	30	4459E3.
	71 - 71 -		71 -	72 -	71 -	NU
Bradfield	81 - 81 -		80 -	82 -	82 -	V372
	94 - 93 -		93 -	92 -	94 -	361
1840-	94 - 95 -		94 -	94 -	95 -	LP
2105/10FF/	97 - 96 -		96 -	96 -	97 -	10
JMB, earlier	102 - 102 -		102 -	103 -	102 -	Mx
	98 - 98 -		98 -	98 -	98 -	NU
near I-10/	103 - 104 -		102 -	103 -	103 -	KS
Spica-Echo	100 - 100 -		103 -	103 -	103 -	T
	89 - 89 -		89 -	89 -	89 -	2
Syncom III	117 - 117 -		118 -	118 -	118 -	HU
	121 - 121 -		122 -	123 -	123 -	14
U20-I.	119 - 119 -		118 -	118 -	118 -	AN
	116 - 117 -		117 -	117 -	117 -	MR
at I-10/	123 - 123 -		124 -	124 -	123 -	NP
Mercury,	132 - 131 -		131 -	134 -	134 -	PH
Venus	128 - 129 -		130 -	130 -	130 -	360
U20-I.	124 - 125 -		125 -	127 -	127 -	NP
→ CN3	108 - 108 -		109 -	107 -	108 -	6
1:00 ^m W.	88 - 90 -		89 -	90 -	90 -	351
	104 - 104 -		104 -	104 -	104 -	TTan

10/11/ 2300 -
2345/

10FF/3MB/

105 ver = 926

Spica-Echo

Saturn, M64/

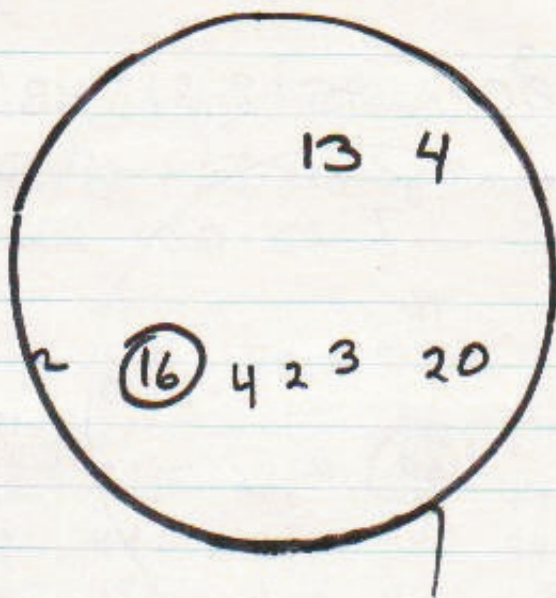
U20-I.

Mars, Jupiter,

Saturn.

Noring.

4460S.



11/12/1620-1635.)

8-F13MB)

Surveyor I-)

SS-2.

G 8

S 64

R 144

Monday.

4461- see after 4454, p. 69.

4462E2. 11/12/1850-200f10-f13MB/ Syncom II, Spica,
 Echo/ Mnbk/ -1 VSO-I.

CN-3 On 45m.-

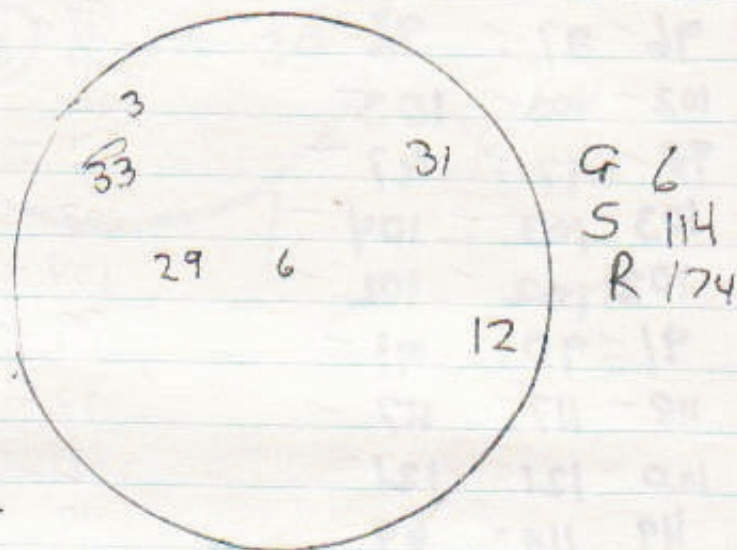
830	840	850	1050	1100	02 80
72 -	71 -	71 -	71 -	71 -	DU
82 -	82 -	81 -	81 -	81 -	V372
94 -	94 -	92 -	92 -	92 -	361
95 -	95 -	95 -	94 -	95 -	LP
96 -	97 -	96 -	97 -	96 -	10
102 -	103 -	103 -	102 -	103 -	MX
98 -	97 -	97 -	97 -	97 -	NV
103 -	103 -	104 -	103 -	103 -	KS
102 -	102 -	102 -	104 -	102 -	T
91 -	90 -	91 -	89 -	90 -	2
118 -	117 -	117 -	112 -	112 -	HU
120 -	121 -	121 -	121 -	122 -	1Y
119 -	119 -	119 -	119 -	119 -	AN
120 -	119 -	119 -	118 -	119 -	MR
123 -	123 -	123 -	126 -	124 -	NP
135 -	134 -	132, 13.5 ² mins later.	133 ² -	132 -	AH
131 -	131 -	130 -	131 ² -	131 -	V360
127 -	127 -	127 -	125 ² -	124 -	NP
108 -	107 -	108 -	109 -	108 -	6
89 -	90 -	90 -	81 ² -	88 -	351
104 -	104 -	104 -	105 -	103 -	TTau

106 vars 103h

4463E3. 1040-1145/10+ - F / 5 MB / Spica, Echo, Saturn /
- / Mars, Jupiter, Saturn / USO-I.

CN-5 Dome 2.5 ✓

4464S. 1350-1405 / 3-9-f / SMB / Surveyor / - / SS2.
 Tuesday 12/13.



Tuesday night ? cloudy.

Wednesday - Rain all day.

Wednesday night - Clouds + rain.

Thursday - clouds + rain.

Thursday night - cloudy.

Friday - clearing late in the day.

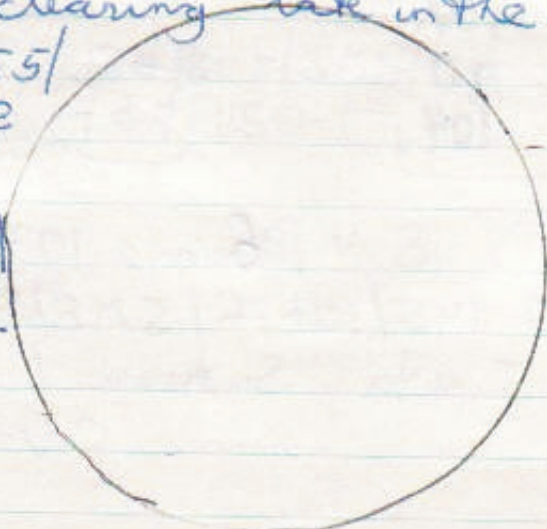
4465S. 15/16 1740-1755 /

Fri / 3-f / JAF

corner

and Waverly

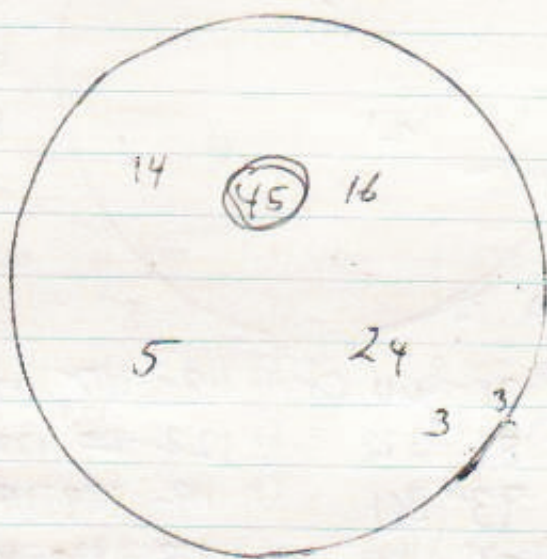
Vgen / - / SS2.



02 80

4466E2 ~22 30-~2245/3-f/JMF/Vger/-/SS2 general

44675 16/1500~1515/3-f/JMB/Surveyor/-/SS2.

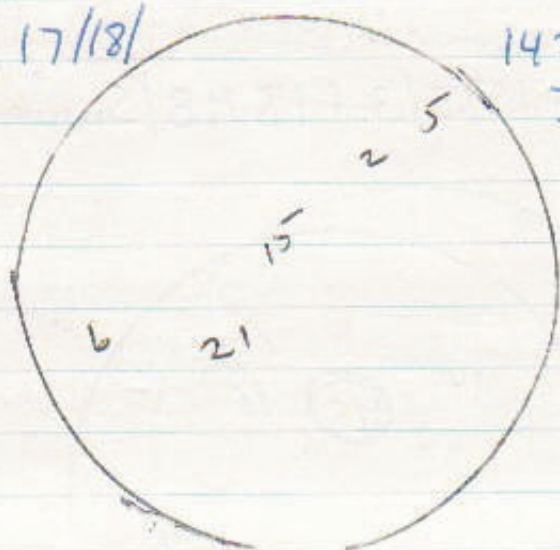


G 6
S 110
R 170

4468E2. ~2100-~2130-1/8 10-3-1-f/JMB/
Rick + Dolores Hill, Danny Stowell/-/
Comet Bradfield, Jupiter, Saturn, Mars/
w/Saturn, + Pegasus.

CN 5 Dome 2.5 2115?

44695. Sunday 17/18/

1430 ~ ~ 1445 / 3-f)
JMB / Uger 1-1552G5
S 4849
R 99

Sunday

71-71-71-72-71-NU Ori

79-80-78-79-81-372

94-94-94-94-93-361

95-95-95-95-95-LP

96-96-96-96-96-10

102-103-103-102-102-MX

99-98-97-100-97-NU

103-104-104-104-103-KS

102-101-99-98-98-T

89-90-90-89-81-2

810	820	830	840	850

118-117-117-118-117-H6

122-¹²¹~~119~~ 122-125-122-1Y

119-119-119-119-AN

119-120-118-119-119-MR

123-122-123-124-125-MP

134-134-(135-136; 436-~~134~~ RH

130-130-129-128-128-V360

127-127-127-127-126-NP

1028; 121087-107-107-107-6

8108-108-89-88-90-90-351

103-104-104-104-103-T-Tan

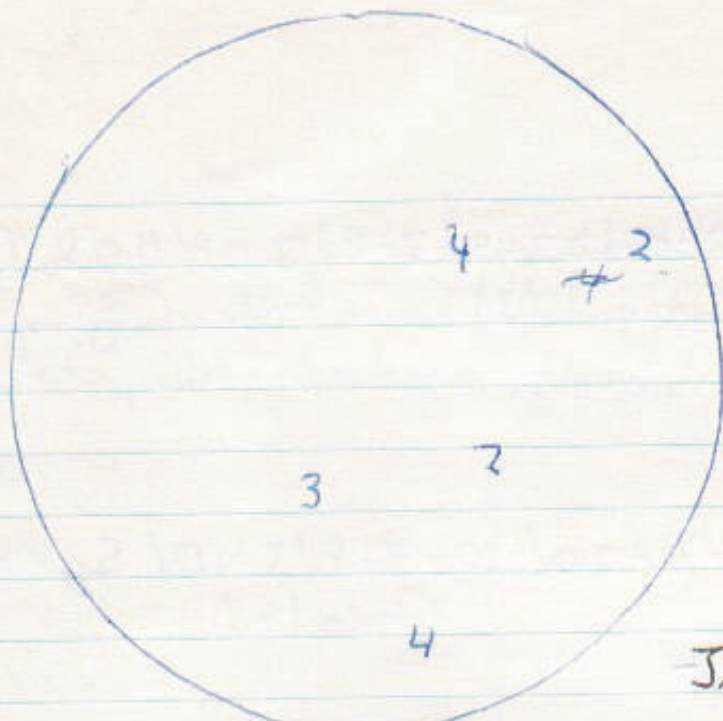
815	825	835	845	855

Comet Bradfield 105 var. ~ 1137

4470E2. 20 1950-2100/10-f / 3MB / - Spica / VSO-I + Comet.

4471E3. 2225-2300 / 3-f / 3MB / photo of Mars + Jupiter.

4725



G 5
S 15
R 65
02 80

Wednesday 20/
-1600-1620 ~ 13-f
Rick Hill's house/
Small refr / flick/
SS 2.

2300-2300²⁹/5/10-f/
JMB / Spica, Saturn / -

VSO-I. Mars 2, 2
no ring

473EM 2

1110	1120	1130	1140	1150	
71-	72-	72-	71-	71-	NO ori
81-	81-	80-	82-	82-	372
92-	92-	92-	92-	93-	361
95-	95	94	95-	95	2P
97-	97-	96-	97-	96-	10
103-	103	103-	103-	103-	MX
98-	98-	98-	98-	100-	NU
102-	103-	103-	103-	103	KS
89-	89-	98-	99-	98-	RGB 61
90-	91-	91-	90-	90-	TGB 101
117-	118-	118-	118-	119-	140
122-	121-	121-	121-	121-	14
118-	119-	119-	118-	118-	AN
118-	118-	118-	119-	118-	MR
123-	123-	124-	123-	123-	NP
133-	133-	136?	135-	135-	108 var = 1245
129-	128-	129-	128-	128-	V360
127-	127-	127-	127-	126-	NP
108-	108-	107-	108-	108-	6
1289-	39-	88-	90-	89-	351
103-	104-	104-	104-	104-	T Tam



MARS

0010.
0710 UT.

4474E Thuro/21/ ~2230-2245/ 7-F/3 MB/Maia 1-1
CN-I Area 101?

4475M2 0500-0620/ 10-3-F/3 MB/ Syncom3
Maia 1-1
CN3 1500m -

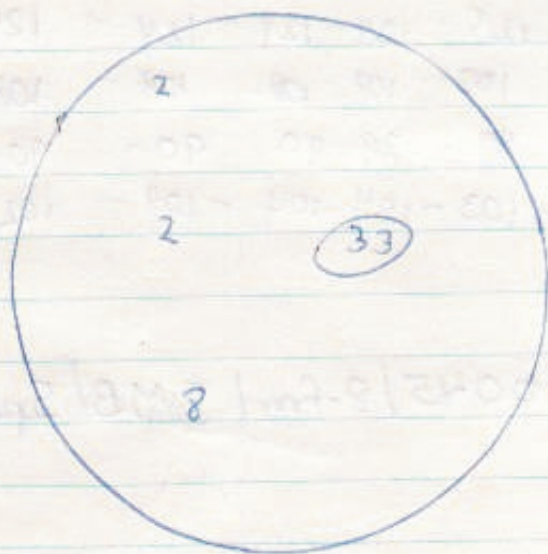
4478S. Fri 22/ 1535-1550/ 7750 Oakwood Circle /
Egans 1-1 SS 2.

02 80

477E ~ 2000-2100 intermittent / 77506 Oakwood +
 new friend's house / Mom, Dad, / view of Mars,
 Jupiter, Saturn, Venus / 3.

478EM2 2230-0150 ^{intermittent} / 10-F / SMB / Echo III / M-Jupiter
 Mars, M13. Test and first light ceremony
 for Echo-III.

479S. 23 Feb / 1610-1625 / 9-F / SMB / Surveyor 1- / SS2.



G 4
 S 45
 R 85

	1040	1050	1100	1110	1120	1130	1140	1150	1200
NU	71 -	72 -	72 -	72 -	72 -	72 -	72 -	73 -	73 -
V372	82 -	82 -	81 -	81 -	81 -	81 -	81 -	82 -	82 -
361	92 -	93 -	93 -	94 -	93 -	94 -	93 -	94 -	94 -
LP	95 -	94 -	95 -	95 -	95 -	96 -	95 -	96 -	95 -
W	97 -	97 -	97 -	97 -	97 -	97 -	97 -	97 -	97 -
MX	103 -	102 -	102 -	103 -	103 -	103 -	103 -	103 -	103 -
NU	98 -	101 -	101 -	101 -	101 -	101 -	101 -	101 -	102 -
K5	102 -	102 -	103	103	103 -	103	103	103	103 -
T	102 -	101 -	101 -	102	102 -	102 -	102 -	102 -	101 -
2	89 -	90 -	89 -	89 -	89	90 -	89 -	89 -	89 -
HTU	117 -	118 -	118 -	119 -	119 -	118 -	118 -	118 -	118 -
LY	123 -	122 -	122 -	121 -	121 -	122 -	123	122 -	121 -
AN	119 -	119 -	119 -	118 -	119 -	119 -	119 -	119 -	119 -
APMR	118 -	117 -	117 -	117 -	117 -	117 -	118 -	118 -	118 -
ABNP	122 -	122 -	122 -	122 -	123 -	123 -	122 -	122 -	124 -
AH									
V360	130 -	130 -	130 -	130 -	131 -	131 -	130 -	130 -	131 -
NP	127 -	124 -	125 -	124 -	124 -	124 -	124 -	123 -	126 -
6	107 -	107 -	107 -	107 -	108 -	108 -	108 -	108 -	108 -
B51	88 -	89 -	89 -	89 -	90 -	90 -	90 -	90 -	89 -
TTam	103 -	104 -	103 -	104 -	104 -	104 -	102 -	103 -	104 -

RAB

TGB

4480EM2.

2230-0045/8-fm/5MB/Spica, Echo, Saturn)

02 80

1210 1220 1230 1240

72 - 72 -

83 - 82 -

92 - 94 -

95 - 96 -

97 - 97 -

102 - 103

102 - 102 -

103 - 103 -

103 - 102

89 - 90

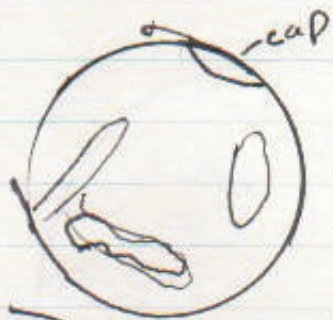
118 -

122 -

119 -

117 -

121 -



0-dark markings

♂ ♀ no ring!

♂ & ♀ also seen in Spica - better alignment, clearer image but Saturn still offers more detail, esp. on Mars.

♂

124: -

108 -

89 -

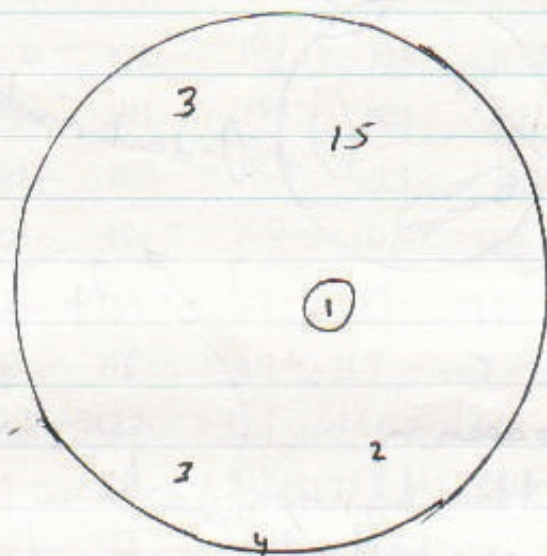
103 -

6.2 -

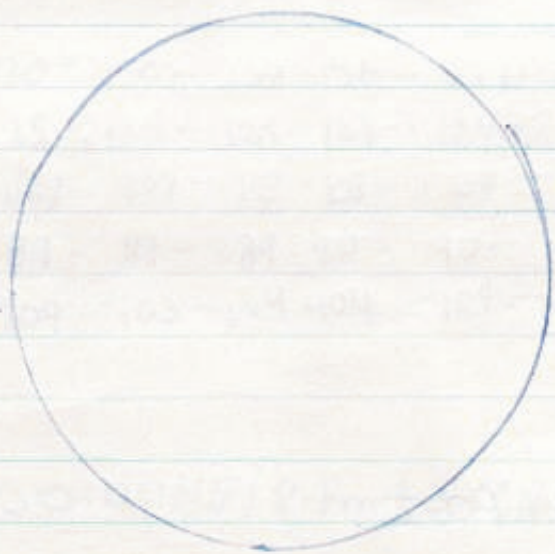
101 -

- VSO-I. 211 ven = 145. LPO-I.

4481S Sunday / 1550-1610 / 3-F / SMB / - / Surveyor II / SS2
24/25



G 6
S 28
R 88



4482#E2-2135-0000 / 93-F / JMB / Spica, Echo / - / S VSO-I, 83

02 80

	2150	2200	2210	2220	2230	2240	2250	2300	2310	2320	2330	2340	2350
70	72	71	71	72	71	71	71	72	72	72	71	72	71
372	82	81	81	81	82	81	82	81	81	80	80	81	80
361	92	93	93	92	93	94	94	94	92	94	94	92	93
LP	94	95	95	95	96	96	95	96	95	95	95	95	95
10	96	97	97	96	97	97	97	98	97	97	98	98	97
MX	103	102	102	102	102	102	102	103	102	103	102	103	102
MU	102	102	103	103	103	103	102	102	102	102	102	102	103
KS	102	103	102	104	104	104	103	104	103	104	104	103	104
T	104	103	103	103	103	104	102	103	103	103	103	102	103
Z	90	89	89	89	89	89	89	89	89	89	90	90	89
HU	119	119	119	118	119	120	120	119	120	120	120	119	
LY	124	122	123	124	121	124	123	125	123	124	123		
AN	119	119	119	119	120	119	119	119	118	118	119	119	
MR	118	118	117	117	117	117	117	118	116	116	117	116	
NP	122	121	122	121	121	121	121	121	120	121	121		
V360	129	127	128	128	128	130	130	130	129	128			
NP	127	123	122	122	122	123	122	123	123	124	122		
6	107	108	108	108	108	108	108	108	108	108	108	108	
351	89	87	89	89	89	90	89	89	89	90	89	89	89
Tau	104	102	103	102	102	103	103	104	103	101	103	103	101

4483M3. 0540-0600 / 92-F / JMB / Syncom III / - / CM3 01 15m =

4484 25 / 0915-0930 / near 7750 Oakwood

Vgen / - / SS2

RAB 62 from
TGB 99 4482
82

249 var = 1705

4484

4484M

Dolores at work

792-2567

~ 4 1/2 hrs.

4485E2. 1915-2350 / 6³⁰ / JMB / Echo, Spica / - / VSO-I, LPO-I

VSO-I	720	740	800	810	820	830	840	850	900	910
HU NUOR	71-	70-	71-	71-	71-	71-	71-	72-	71-	71-
HYV372	80-	80-	81-	80-	80-	80-	81-	81-	80-	80-
V361	94-	93-	93-	93-	93-	92-	92-	92-	93-	93-
LP	95-	95-	95-	95-	95-	95-	95-	94-	95-	95-
10	97-	96-	96-	97-	97-	97-	96-	96-	97-	97-
MX	103-	102-	103-	103-	102-	103-	103-	103-	103-	103-
NU	102-	102-	101-	101-	102-	102-	101-	102-	102-	102-
KS	104-	103-	104-	103-	104-	103-	103-	103-	104-	104-
T	103-	102-	103-	102-	103-	103-	102-	103-	103-	103-
2	88-	89-	89-	89-	89-	90-	89-	89-	89-	89-
HU	119-	118-	118-	119-	119-	118-	118-	119-	118-	118-
1Y	123-	124-	124-	122-	122-	122-	122-	123-	124-	124-
AN	119-	118-	119-	119-	119-	119-	119-	118-	119-	119-
MPMR	118-	118-	116-	116-	118-	116-	117-	117-	117-	117-
MRUP	120 ⁰ -	120 ⁰ -	123 ⁰ -	124 ⁰ -	123 ⁰ -	122 ⁰ -	122 ⁰ -	122 ⁰ -	123 ⁰ -	122 ⁰ -
NU360	127 ⁰ -	128 ⁰ -	129 ⁰ -	130 ⁰ -	128 ⁰ -	128 ⁰ -	127 ⁰ -	127 ⁰ -	128 ⁰ -	127 ⁰ -
NP	123-	121-	122-	123-	123-	122-	123-	123-	123-	123-
6	108-	108-	109-	108-	108-	109-	110-	109-	111-	109-
V351	89-	89-	88-	90-	88-	89-	89-	88-	88-	89-
Tauri	102-	102-	104-	104-	104-	103-	104-	103-	103-	103-

↓
 photos of Venus.

at 2030.

minutes before

haze off diffusor.

02 80

701

920 930 940 950 1020 1050 1100 1110 1120
 71- 71- 71- 71- 72- 71- 71- 71- 71-
 80- 81- 80- 81- 80- 81- 80- 82- 81-
 94- 93- 92- 92- 94- 94- 94- 93- 93-
 95- 95- 95- 94- 95- 95- 96- 95- 95-
 97- 97- 98- 96- 97- 97- 97- 96- 97-
 102- 103- 102- 102- 102- 102- 102- 103- 102-
 102- 102- 102- 102- 102- 102- 102- 102- 102-
 104- 104- 103- 104- 103- 104- 104- 103-
 103- 103- 102- 103- 103- 103- 103- 103- 102-
 89- 89- 88- 89- 89- 89- 88- 89-
 119- 118-
 124-
 120- 119-
 116- 117-
 123-
 127-

109- 110- 109- 110- 110- 109- 108-
 89- 89- 89- 89- 89- 89- 90-
 102- 103- 102- 102- 102- 103- 103-



Mars w/ Saturn +
 10mm appia.
 also 2x Moon

3/3 var = 2018!!

02 80

4489E2 27/28 | ~2030 - ~2115 / 7-fm / Rick + Dolores' place /
Vger, 2.4" refr / R, D, others / Moon, Mars,
Jupiter, M42, Mizar + Alcor.

4490S. 28/29 | 0745-0800 / 7-F / JMF / Vger | - / SS 2.

4491E2. 2115-2200 / 6-fm / Carol Apts / Mercury | - / US O-I:

	0920	0930	0940	0950	1000	Jupiter, Mars,
NO Ori	71-	71-	71-	71-	71-	Mizar + Alcor,
V372	80-	80-	82-	81-	81-	Moon.
V351		88-	89-	89-	89-	

14 Jan = 2032.

29/30 - New Orleans - cloudy
 March 2 30/31 - New Orleans - cloudy + cold
 2/3 - N.O. - clear - no SS reading
 2/3. Tucson - cloudy night.

March

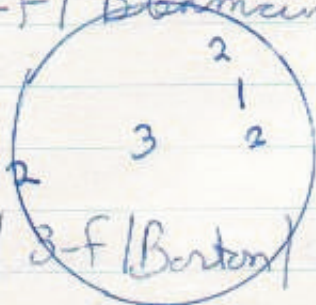
44925. Mon 3/4/ no reading
 → 4/5 Tues. ~1100-1115 ~ 10-f | one of the
 Cat. Foothills schools / Voyager / -SS-1.

4493E2. ~2200-2230 ~ 17-f | ~~5-MB~~ Rick Hill's place)
 - Rick / 6" RV6 / - M42 - Jupiter, etc.

44925. 5/6 Wed. 1100-1120 / 10-f | Sunrise Drive
 School / Jacqueline + Ned Levine + ~20 children)
 -SS2.

449552. 1400-1700^{int} / 7-f | Barton School / Voyager)
 -SS?

4496S. Friday, 7/8 / 7-f | Blawie School / Voyager)
 ~30 students / sun.



Gr 5
 S 10
 R=60r

449752. 1400-1700 int / 3-f | Barton / Voyager / others /
 Sun. SS2.

08 80

4498E2 ~2330-0600~/10-F/5MB/Saturn/-/
 Jupiter, Saturn, Mars. Clearline of ring for Saturn

4499S. 9 8/9/1700-1720~/3-F/5MB/ Surveyor/-/
 SS2,



Sat.

G 4

S 9

R 49

4500E2. ~2300-0000~/10-F/5MB/Saturn/-/
 Jupiter, Mars, Saturn w/ rings.

45015. 9/10/120 ~~1700-1720~~

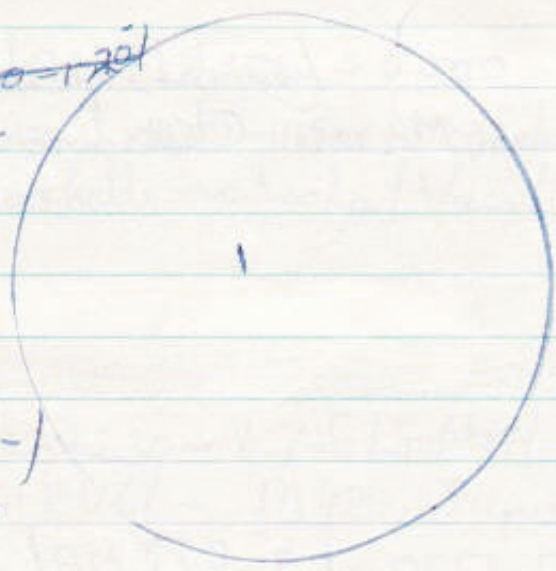
1640-1700/

22-f/

3MB/

Surveyor/-)

SS2.



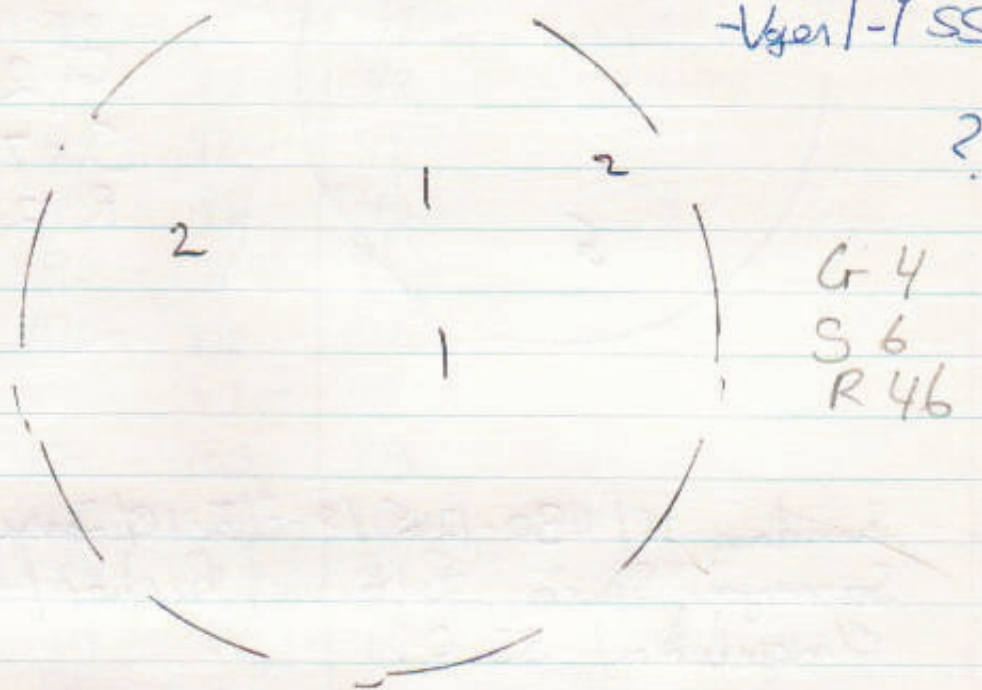
per cord.

G	
S	
R	

9/10 cloudy,
10/11 Cloudy

?? can't be. see 4506c. 03 80

4502s. ? 12/13/1720-1735? / ~~Wdome~~ Craycroft exit? /
-Vgen / -SS2.



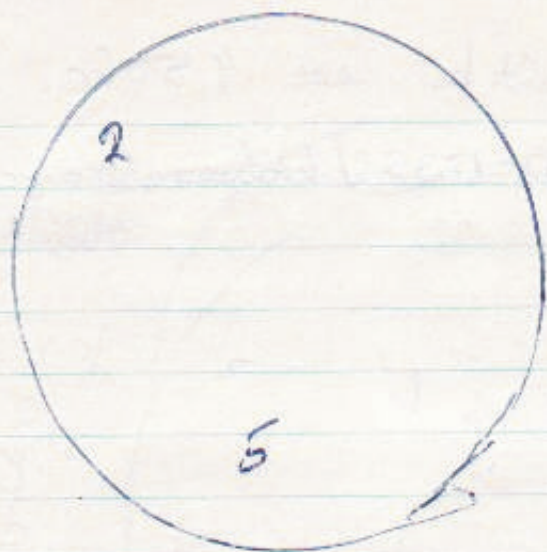
12/13/Wed.

4503 E(2) + 1900-2100 / 9-10-F / 5MB / South side / Syncom 3 /
camera / Venus photo, Mars + Jup photo? /

CN3 0430m W! -

4504 E. 11/12. 2135-2150 / in front of Flandrau /
- / others: Rita + Dolores, ² Jim Scotti, /
pt cloudy / general. celebration of perist
planetarium lecture.

4505 E (M?) 12/13 Thurs? also a short session Fri? or/and Sat?
a, b? + either, or both, ^{on all 3} with ~~Jup~~ Saturn: looks at
c? Jupiter, Mars + Saturn. forgot to record
though!



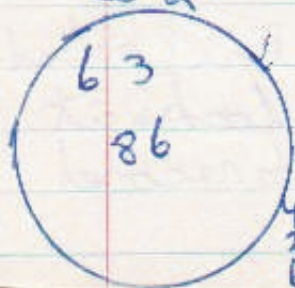
G 2
S 7
R 27

45065 Sunday 16/1130-1245 18-F/5/113/ Surveys II,
Surveys Spica, Saturn / Bishop family,
Angelika / SS 2.

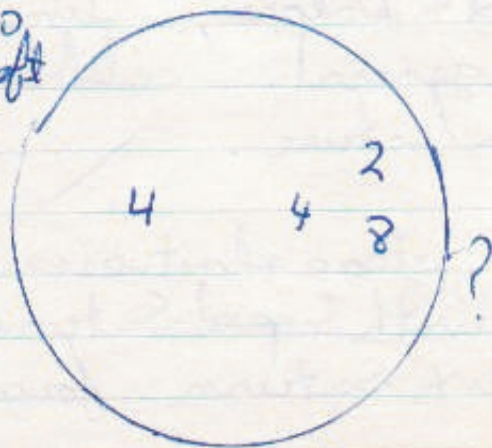
Boy & Great Katrina Gertrude Orinda

45066 13/14/1545-1600 18-F/U of A/Vgen/-/SS2.

4506c. 12/13 ^{Sch 1-10} / Craycroft
dist Rd/Vgen/-/1
SS-2.



4
23
63



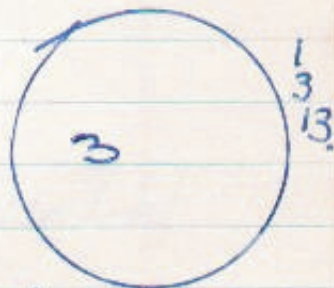
G 4
S 18
R 58'

16/2030-2250 int | 10+ - F / SMB / Spica, Mbk |
 Monday 17th USO-I.

4507E2. 840 ~~850~~ ~~900~~ ~~910~~ ~~920~~

NU	72 -	72 -	72 -
V372	83 -	82 -	82 -
V361	93 -	92 -	94 -
LFB	95 -	94 -	95 -
IU	96 -	96 -	95 -
MX	102 -	102 -	102 -
NU	97 -	97 -	98 -
KS	103 -	103 -	103 -
T	98 -	102 -	102 -
2	89 -	89 -	89 -
HU	119 -	119 -	119 -
IY	122 -	124 -	123 -
AN	119 -	119 -	119 -
MR	117 -	117 -	117 -
NP	122 -	123 -	122 -
AAH	133 -		
V360	128 -		
NP	134 -		124 -
6	109 -	108 -	109 -
V351	89 -	89 -	89 -
T Tau	104 -	105 -	105 -

58 var.



4508S. 17/1405-1435/9-F/IF/Boston/Vger/others/SS2.

4509E2. ~~1000~~ 2130-2240/10+ - F / SMB / Mbk, Stern,
 Spica / Angelika / SS USO-I: Photo of
 Jupiter & Mars. Saturn, Mars, Jupiter. 42.

4510EM3. 0430-0600/10-f/3MB/Syncom3/Maial

CN3 0^h 50^m M15 E. -

CN1

40

23

23a

16

6

✓

Dome 2.5?

*4511S

18/19/ 1200-1530/10-f/3-
 Observatory/ 50-inch Coude Fed Telescope,
 4" Solar H α telescope, Visitor Centre Telescope

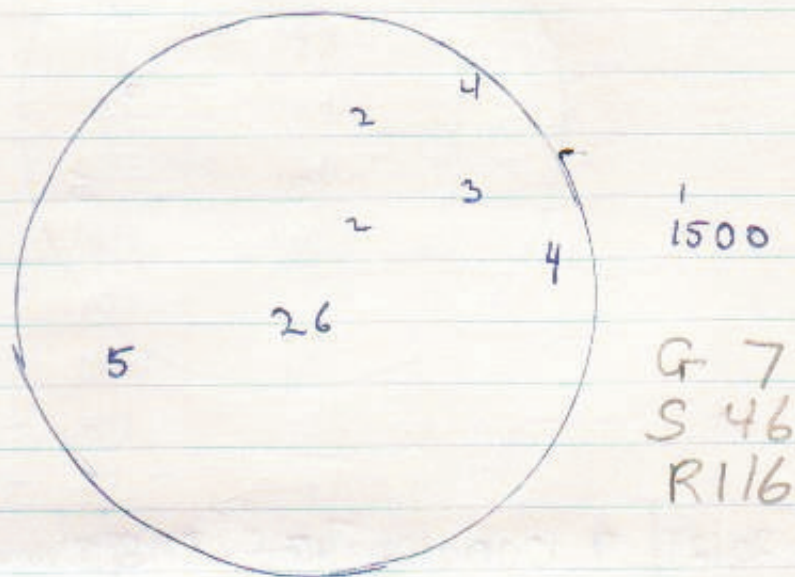
Rick Hill,
 Bishop Family
 Angelika,
 Gus!



1230

Sun in Hd
 Venus with 50-
 inch

03 80



and sunspot reading.

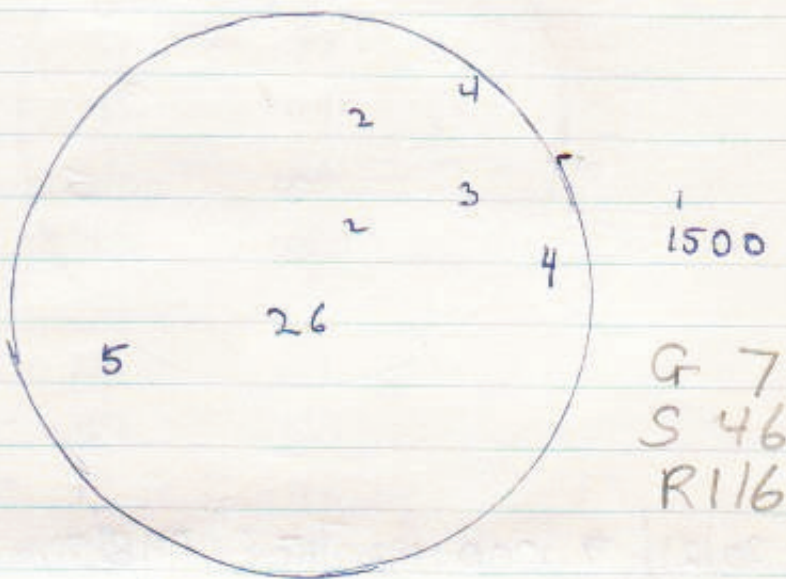
Sun

45R5E. 2100-2200 / Steward / 21" rev, 5" Zeiss on /
 Rev Roy + Gertrude Bishop, Angelika,
 Rick + Dolores / Jupiter, M42,
 Lambda Ori, B (?) Mon. (triple)

4513E, 11/20 - 2300 - 2330 ~ / JMB / 1 Echo 3, Mark /
 Polaris, ♄ Jupiter.
 RAB 60 -
 TGB 10.0.

2 var = 60

03 80



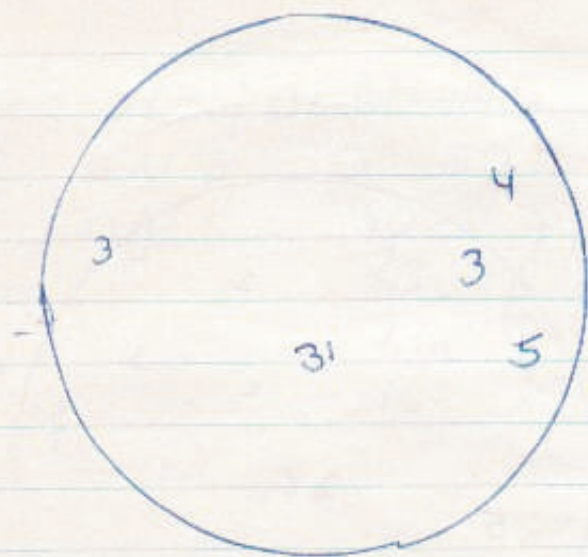
and sunspot reading.

Sun

45R5E. 2100-2200 / Steward / 21" rx, 5" Zeiss /
 Rev Roy + Gertrude Bishop, Angelika,
 Rick + Dolores / Jupiter, M42,
 Lambda Ori, B(?) Mon. (triple)

4513E. 19/20 - 2300-2330 - JMB / 1 Echo 3, Mrbk /
 Polaris, ♄ Jupiter.
 RAB 60 -
 TAB 10.0.

2 var = 60



Q 5
S 46
R 96

45145. 20/21/ 9 1000-1020/10-f/3MB/Surveyor 2/-Pngelika/
SS2.

451552. 1250-1315/10-f/ven s. str/ Maia (2ka)
Moon. terrestrial.

451653. 1930-2045/7-fm/3MB/Spical-/~~SS~~ USO-I →

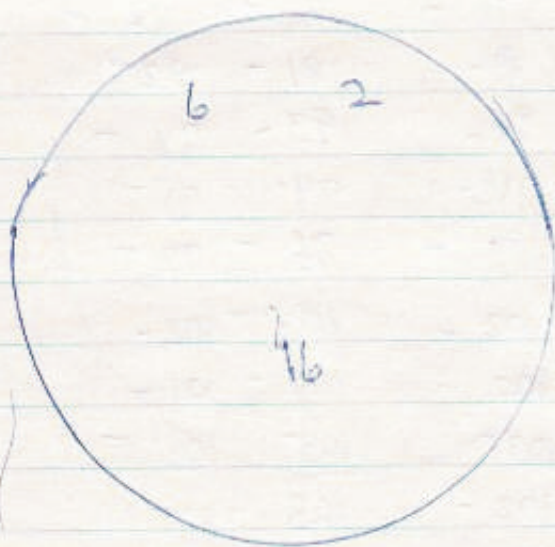
Venus photo now necessary
at 2045.
taken.

	740	750	800	810	820	03	80
NU	71-	72-	71-	72-	72-		
372	81-	82-	81-	81-	82-		
B61	92-	94-	94-	93-	94-		
LP	94-	95-	95-	94-	95-		
W	95-	96-	97-	96-	97-		
MY	102-	102-	102-	103-	102-		
NV	99-	98-	100-	100-	101-		
KS	104-	103-	103-	103-	104-		
T	102-	102-	102-	103-	102-		
Z	89-	89-	90-	91-	90-		
HD	119-	119-	118-	118-	120-		
LY	121-	121-	122-	121-	121-		
AN	119-	118-	119-	118-	119-		
MPMR	116-	117-	117-	117-	117-		
MPA+NP	123	122-	124-	124-	123-		
AH	131-	131-	132-	130-	130-		
V360	130-	129-	130-	129-	129-		
NP	124-	124-	123-	124-	124-		
6	108-	108-	109-	109-	109-		
351	89-	89-	90-	89-	90-		
T Tan	105-	104-	104-	104-	105-		

105 var: 165

517EP 203-1900-1910/9-F / Rik's place / - / Rik, Dolores,
Will, Vicky, Angelika / general. Venus, Moon.

9518EP2. ~~1900~~ ~ 2100-~2105 / 7-F / Campbell St / - /
see above / general.



G 3
S 24
R 54

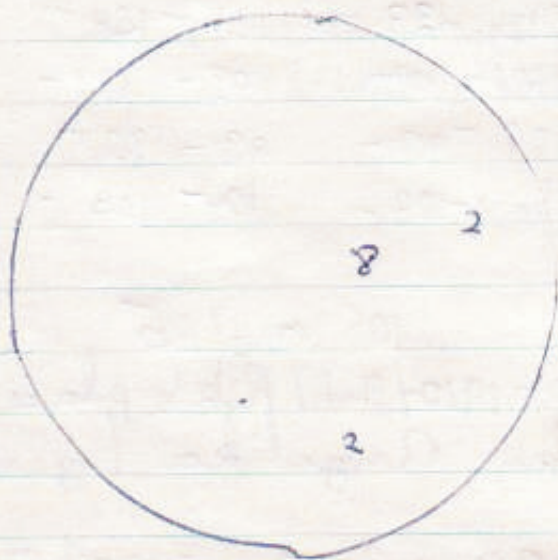
21/22.

4519 ES. 1115-1130 / 8-F / JMB / Vger / 2ka / SS2.

4520 M2. ~0130-0145 ~ / 3-F / JMB / Mnbk / - / general.

4521 S. 22/23 / 1610-1630 / JM, inside / Vger / - / SS2.

Cond: F.



G 3
S 12
R 42.

03 80

4522 EP2 ~2335-2345~ / 3-F, after cloudy night / 3MB /
Vger 1-1 Moon.

45235. 23/24 / 1355-1410 / 9-F / Steward Obs Lot / Vger 1-1 SS2



G	6
S	39
R	99

23/24/
4524E2 1900-2100 / F/3MB/Pegasus? / - / VSO-I,

	730	740	750	800	810	820	830	840	850
NU	71-	71-	72-	72-	72-	72-	71-	72-	72-
V372	82-	81-	81-	82-	81-	81-	82-	82-	82-
361	94-	94-	94-	93-	94-	94-	94-	94-	94-
LP	95-	94-	95-	95-	95-	94-	95-	95-	95-
IU	96-	96-	96-	96-	96-	96-	96-	96-	96-
MX	102-	102-	102-	102-	103-	103-	102-	103-	103-
VU	101-	101-	102-	102-	101-	101-	102-	102-	101-
KS	104-	104-	103-	104-	104-	104-	104-	103-	103-
T	103-	103-	102-	104-	104-	104-	104-	104-	104-
Z	89-	89-	89-	89-	90-	89-	89-	89-	90-
HU		108-	118-						
IY		123-	124 124-						
AN		119-	119-						
MR		118-	118-						
NP		123-	122-						
V360		129-	129-						
NP		123-	123-						
b		110-	108-		110-	110-			
351		89-	889-		89-	89-			
T Tau		104-	104-		104-	103-			

116 var = 281

03 80



4525 MB ^{23/24} ^{24/25} ~~4/2~~ ~~23/24~~ Mon. Morning / 0230-0530 / 10-3-F / SMB /
 Syncom 3 / - / CN3: 1^h 30^m. E. -

4526S

24/25?

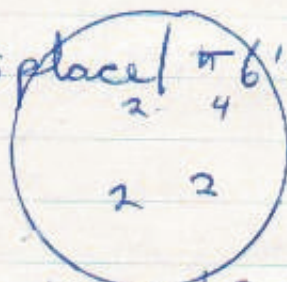


-?-? / SMB? / Veger? / -? /
 SS2.

? G 10
 S 62
 R 162

28 / van thismo sofa

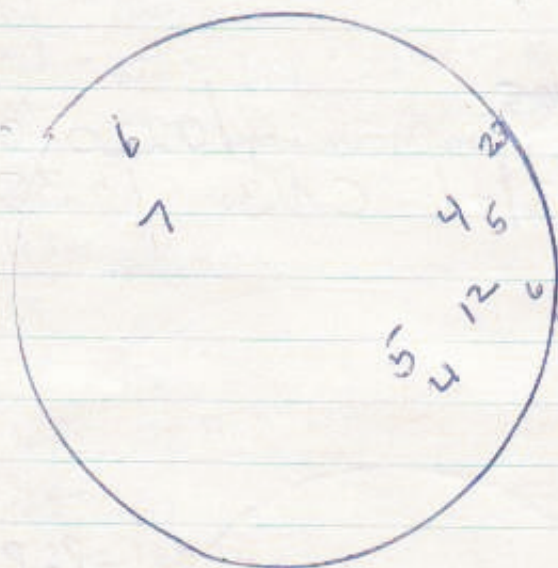
4527S. 24/25/1220-1230/Rik's place/6"sd/Rik/SS2.



G 4
S 10
R 50.

4528M Mar 27/130-1115/7-fm/3MB/Saturn/-/
Camera: Sesto 5" + 2x + moon photo.

4529S. 28/1230-1245/3-F-3MB/Vjor/-/SS2.



G 9
S 72
R 162

4530EA 28/29/ Fri. night/ ~~2020-2045~~ 2030-2100^{int}/7-Fm/
3MB/ Camera/-/ Venus shot.

4531S. 29/30/ 132 1430-1600/8-F/3MB Rik + Dolores/
place/ Umbra, 6"sd/ R+D/SS-2.

09 80

~~S 3/3~~

~~52~~ 2. 2030-2200 / Rt-D's place / 6"nl / -Rt-D/
 Several double VSO-I.

NU ori

~~V361372~~

361

LP

IU

MX

NU

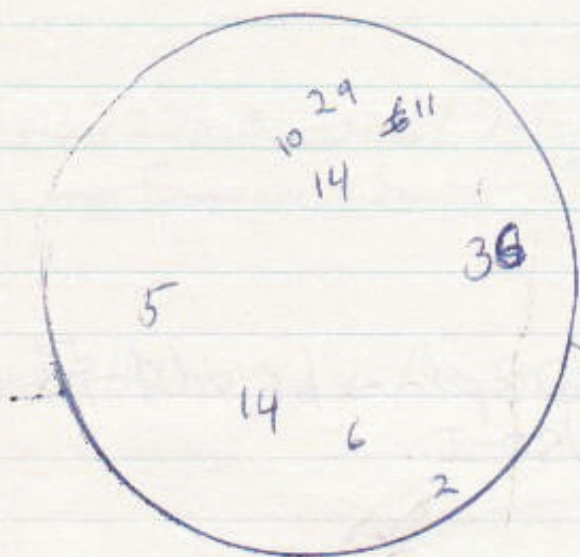
KS

T

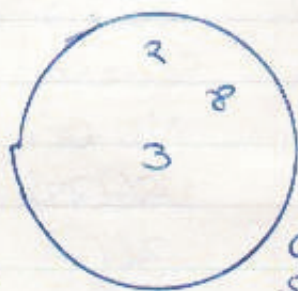
2

4533S.

30/17 1640-1700 110-F/3MB/Surveyor/-/SS2.



G 9
S 125
R 215



G 3
S 13
R 43

March.
4534S.

31/32 | 2 - 2 |

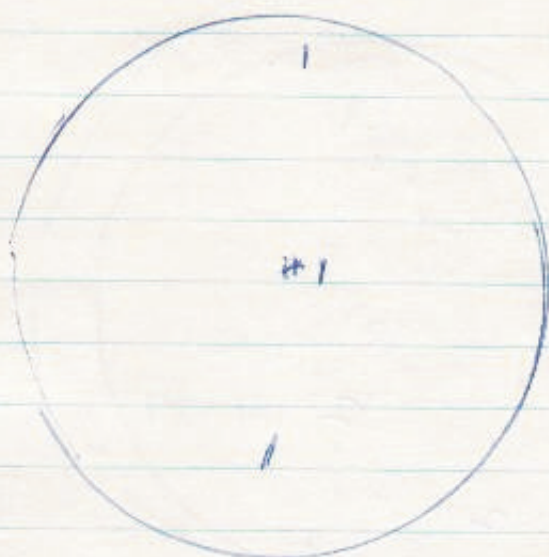
→ ?/SS2. →
APRIL.

APRIL

4535E.

1/2325-2350/3-fm/3MB/Saturn/-/photo of planets.

04 80



Apr 2 / 1830-1905
 Foto Wed.
 near LCP-S-F/
 Vgerl- / SS2.

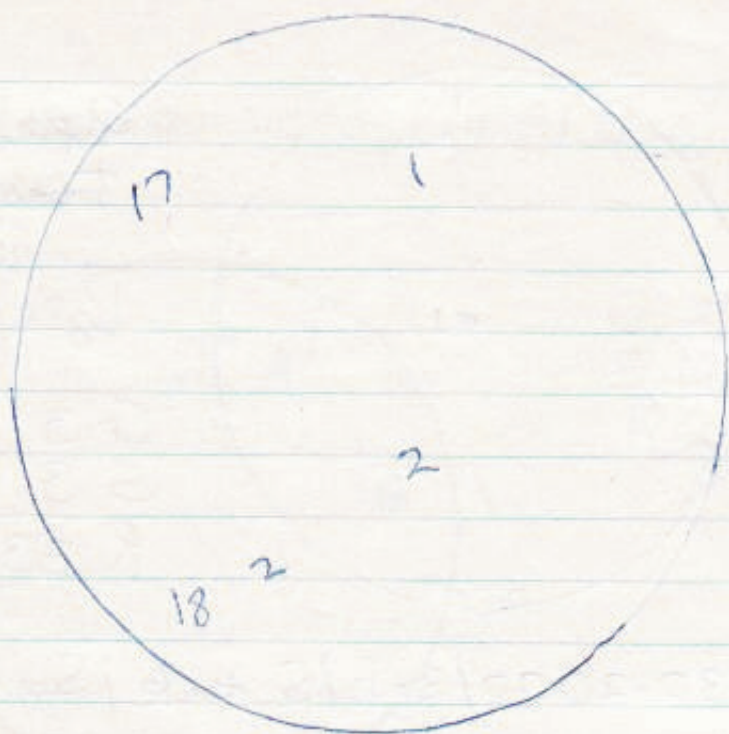
G 3
 S 3
 R 33

536E.2 Wed / 1930-2000 / 3-F / S. site / Syncom 3 / -)

CMB 0.5^m -

537E.3. 2040-2100 int / 3-F / JMB / Here / - /
 photo of Venus.

538E.4. ~2300-~2310 / 3-F / JMF / - / - / general.



G 5
S 40
R 90

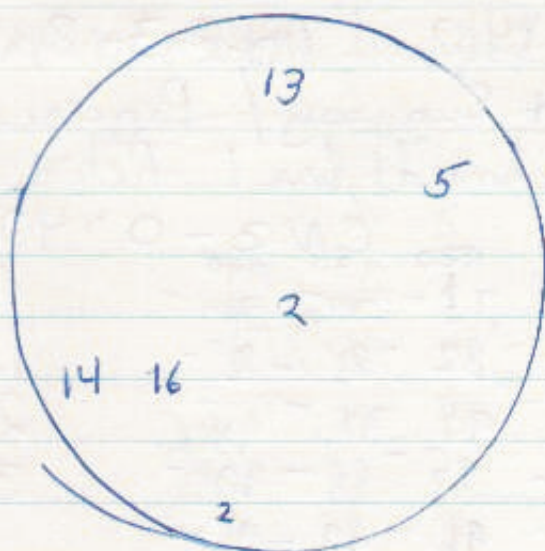
4539 S. Thu / ~~7-F~~ - 1520-1545 / Rick's place / 6" rfd /
Rick / SS-2.

4540 E. Fri 4/5 / ~~1200~~ 1940-2010 / 7-F / Garry's place / - /
Billy / general.

4541 E2. 2330 ~ ~ 2345 / 8-F / SMF / - / - / general.

04 80

542S



G 6
S 52
D 112

Sat | 1300-1315 / 8-f / JMB / Syncom 2 / - / SS-2
Exciting! Syncom 2 with new solar filter.

543S2

1600-1700 int / KPNO / 12" rd + 3" sr / - / Rikt
Sun.

543S3

1845-1915 / KPNO / - / KP telescope camera / - / Rikt
Dolores / Sunset pictures.

- Pluto spotted -

④ 4545 EM4/1930-1410. ⁰² 110-~~P~~3-8m f/3.4 KPNO,
Werner + Suzyday / Pegasus, Maia, 12" refl.
Burrill Schmidt, br 1 Rik + Dolores!

CN 3 - 0^h40^m W. -

NU	910	920	930	940	
	72	77	70	71	
V372	82	82	82	82	1. CN-3.
V361	94	94	94	94	2. VSO-I
LP	96	95	95	95	3. Jupiter w/2
W	97	96	97	96	moon shadows
MX	102	102	103	102	on disk + one
NV	101	101	100	101	moon just leaving
KS	104	104	103	104	
T	103	103	103	103	4. Pluto -
Z	89	90	89	89	I found Pluto
HU	18				with 12".
IV					Confirmed by Dolores
AN					+ then by Rik.
MR					Then, I found Pluto
HMP					in 8" (Pegasus).
AH					Also confirmed
V360					by Rik.
NQ					
K	110	109	109	109	50 var
V351	87	88	87	88	
T	105				

Pluto was the easiest of the outer planets to find. Time spent - ~5 min. in search.

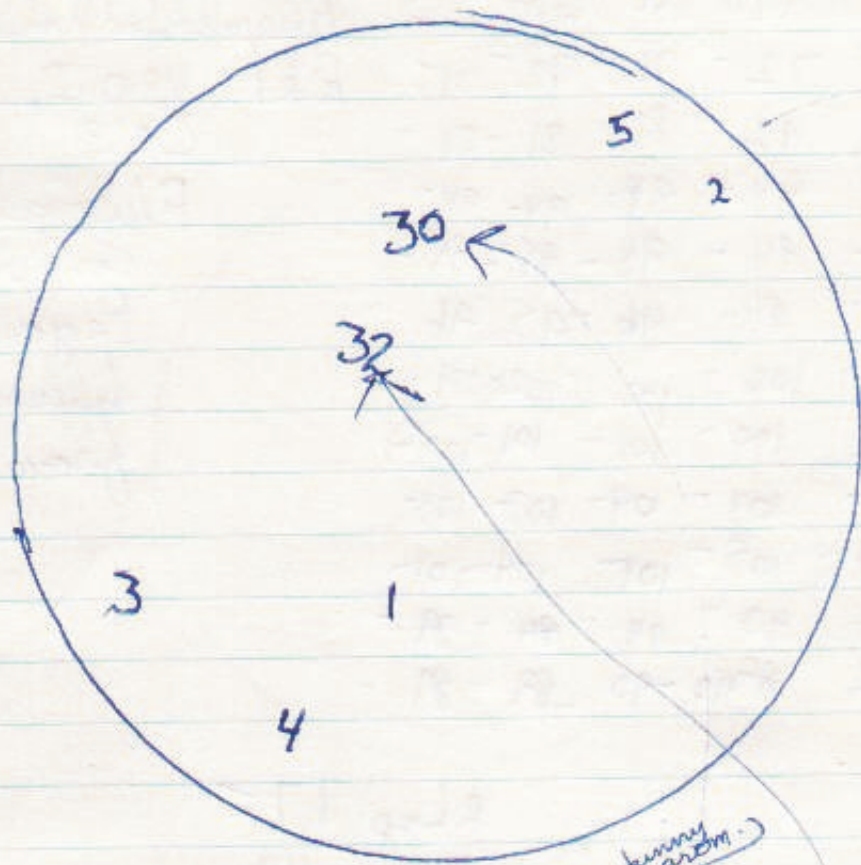
- Pluto spotted -

4546S, 1030-1045/10-F/KPNO/Solar telescope/-/1
O in H α .

109

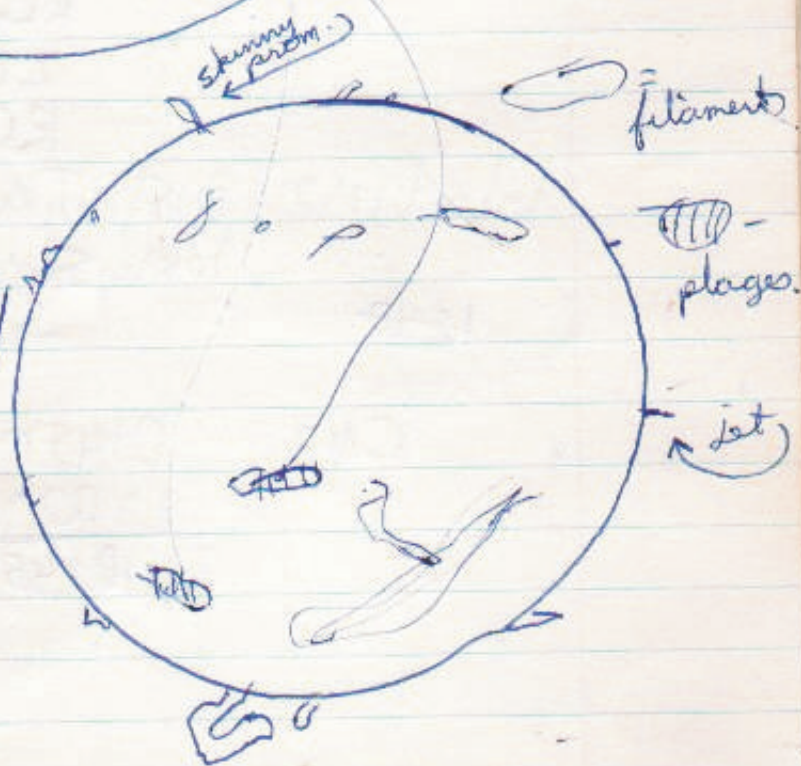
04 80

~~4547~~ 1145-1205/10-F/KPNO/Visitor telescope/-/SS2.



G 7
S 77
R 147

~~4548~~ 1345-1400/10-F/KPNO/
Raslow Telescope/
Rik + Dolores + others



	930	940	950	1000	1010	Maia Pegasus, 9" nr/ Burrell Schmidt, 4" nr/ Rikl VSO-I.
*#4549EM4.	1820	-	0220	110-3-F	KPNO	
NV 91	71-	72-	71-	72-	71-	
V372	82-	82-	82-	81-	81-	CN3
361	94-	94-	94-	94-	94-	Pluto absolutely confirmed in Pegasus - different position from last night!
LP	95-	94-	94-	95-	95-	
1U	97-	96-	96-	95-	96-	
MK	102-	102-	102-	102-	101-	
NV	101-	100-	101-	101-	100-	
FS	103-	103-	104-	103-	103-	
T	104-	105-	104-	104-	104-	
Z	91-	90-	89-	89-	89-	
V357	89-	89-10	90-	89-	89-	

R Lep 7.7-

Z Cam 11.2-

RCB 6.1-

1015 TAB 10.2-

1040 SWUMa C13.5 - 082953

SS Cyg 11.2

~~1240~~

CN3

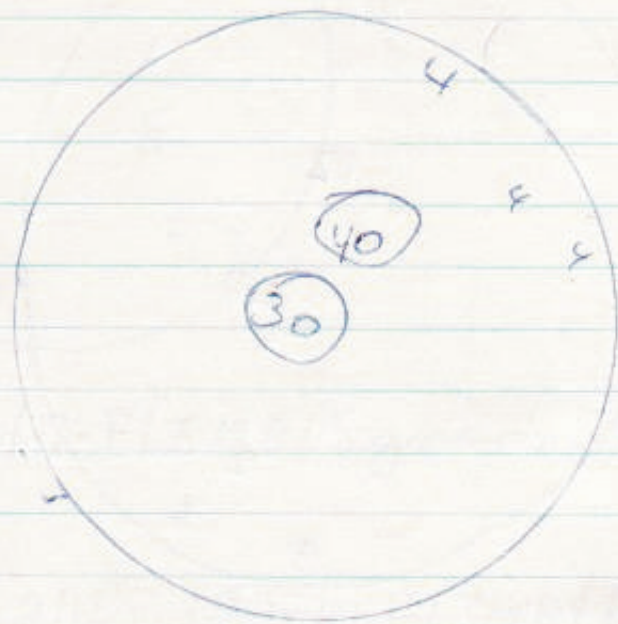
0^h45^m W. Twilight1^h00^m E.Total 0^h45^m -

CN-5 Dome

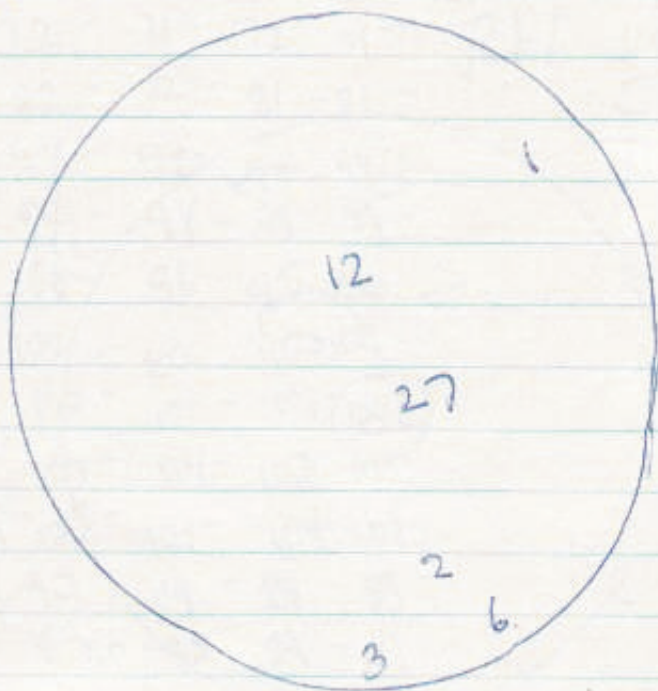
2.5?

04 80
04 80

Mon.

4550S. 1730.-1745/7-F/KMart Centre, Broadway +
Kollb/Vger/SS 2.G 5
S 82
R 132
+ Granulation!7E2. ~~217203~~ 2045-2105/9-F/SMB/-1-1
forgot about Venus pic.!

45525. Tues.



G 6
S 51
R 111

~~1130~~ - 1750 - 1805 / 8-F

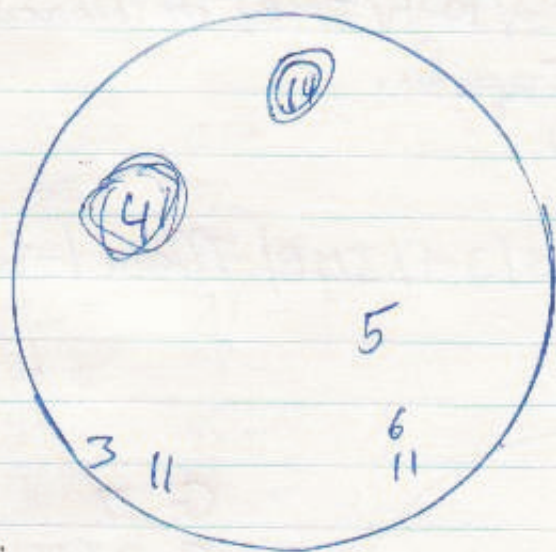
JAB / Cecod's /

Cindy + Nicole de Rico

Vger S.S 2.

* 4553E2. 8/4/00 - 1140 pm / 8 10-F / 3 MB / Echo IV (-)
Jupiter, Mars, M44.

RGB 62 -
V GB 10.0 -
Z Cam 11.7 -



14
41
14
3
6
11
3

G 7
S 91
R 161

9/10?

55S. 1725-1750/7-F/3MB/Syncrom ~~III~~ II/-ISS2.

555E2, 1930-2115 18F10-F/3MB/Pegasus, Minnowbrook, Maia/-/CN3. 0415m - Check of possible Nova in ϵ near E Gem. Unconfirmed.

	850	900	910
NU	72-	72	71-
V372	82-	81-	81-
V361	93-	92-	94-
LP	95-	95	95-
IU	96-	96-	97-
MY	102-	103-	103-
NU	102-	102-	102-
KS	103-	104-	103-
1	106-	107-	106-
2	89-	89	90-
V351	88-	88-	89-

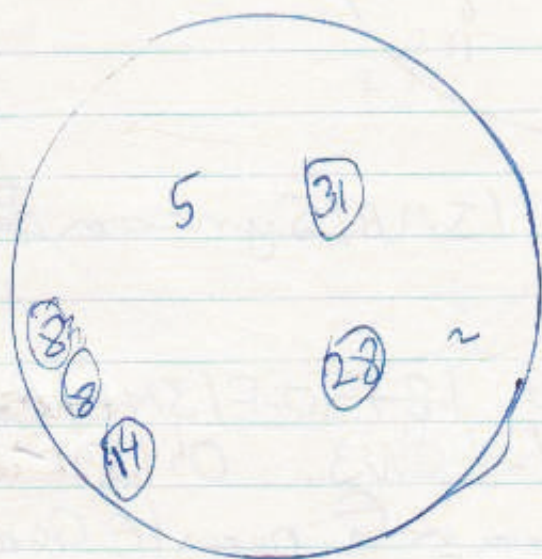
with Pegasus.

with Pegasus.

2100 Dome 2.5?

4556E. 11/12/2300-2350~/10-F/3MB/ FF-Mercury,
Saturn 1-1M44. Jupiter.

4557S. 12/13/1700-1715/3-F/3MB/ TMaia 1-1SS 2.



G 7
S 96
R 166

04 80

9558E2 1900-0230 / 10-F / 3MB / Cosmos II+III, Saturn,
 Spica, Echo, Pegasus,
 6" Edm., 6" F/5? f, 6"
 folded or |

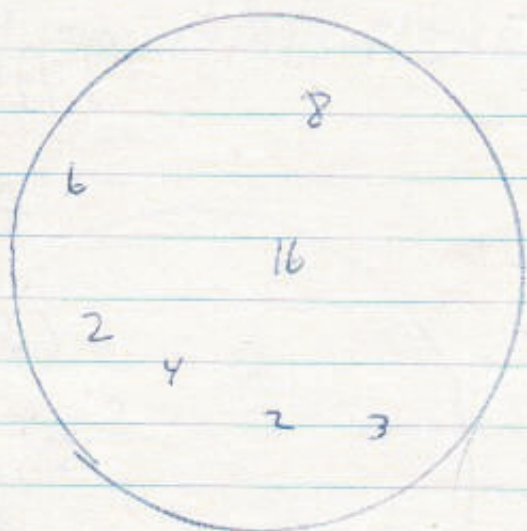
	830	810
ORI:	82	82
NU	71 -	72 -
V372	82 -	81 -
V361	94 -	94 -
LP	95 -	95 -
10	96 -	97 -
MX	103 -	103 -
NU	101 -	102 -
KS	103 -	103 -
T	107 -	105 -
2	99 -	98 -
HU	118 -	
1Y	123 -	
AN	118 -	
MR	129 -	
NP	123 -	
V351	89 -	

TAA people!

+ VSO-I:

General obs.

Jupiter - first
 one moon then
 another appears.
 2nd (Io?) then
 overtake first.



G 7

S 41

R 111

Per cent.

13/14.

45595A NS 1830 ~~00587~~ / 10-F / K PNO 20cm / Pegasus / - /
 → D605 / SS2. Then Pegasus 50"
 McGraw-Hill inst., 2'4" Schmidt
 Echo-IV, Mercury.

CN-3 1^h 00^m W. w/ Pegasus + Mercury
 On 35^m E w/ Pegasus.

Total 1^h 35^m ←

ON

04 80

— EARTH —

Sun — see opposite — 1835 —

↖ TEGASUS ↗

15mm RKE eyepiece SAO 120075

1	Pluto.	2130 ~	not too far from	15mm RKE
2	Venus	2140 ~	and 2230.	"
3	Mars	-2228-	near 2 Leo	"
4	Jupiter	-2229-	near 2 Leo	"
5	Saturn	-2230-	tail of Leo. Noring!	"
6	Uranus	-2350-	near 8 Lib	"
7	Neptune	-0025-	near 3 Oph.	"
+8	Mercury	0455	in Cetus.	"

9 Moon not seen —
at 17h before new.

Photo again at
~ 0230 ~.

* at unfavourable W. elong. Uranus, Neptune
& Pluto confirmed
by Rick

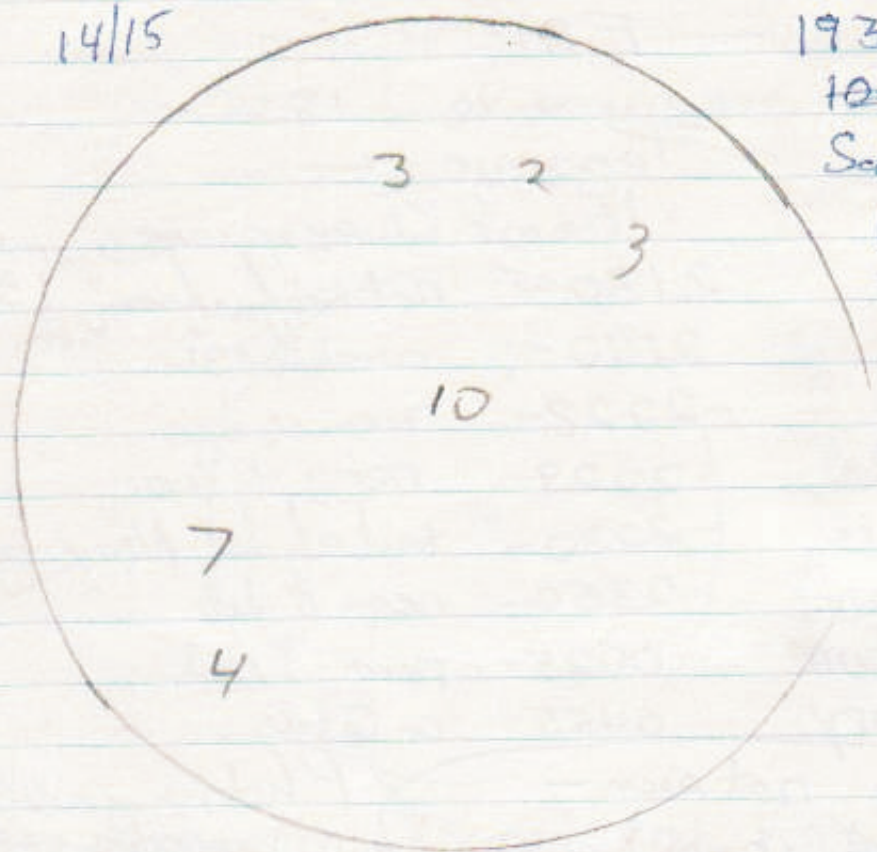
RGB 6.0:

VGB 10.1

- SSCyg 10.2

3 var =

* 45605EM 14/15

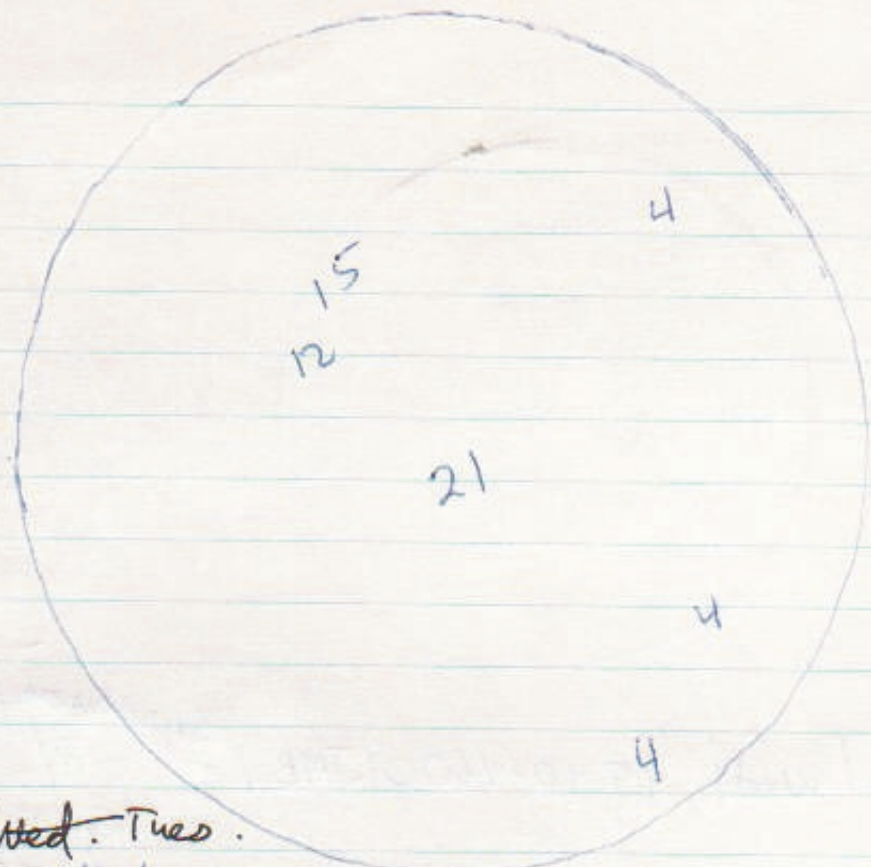


1930-0230/
 10-11-F (KPNV)
 Schmidt family,
 Pegasus,
 Echo II,
 Mercury/
 Riki

SS 2: G 6
 S 29
 R 89

CN3 1400m W
 2400m around midnight
 3400m Total -

04 80



Seeing F

G	6
S	60
R	120

Wed. Tues.

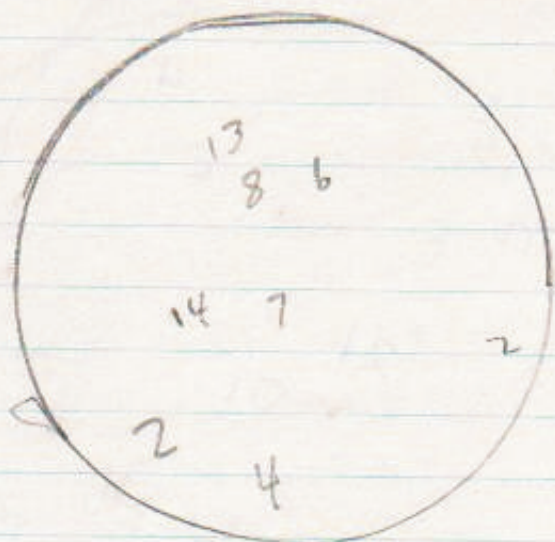
45615. 15/16/1020-1040/KPNO Visitors Centre / V. Telescope
Rik / SS2

4562M2. Wed am. 0400-0500 / 9-10-f / 3MB /
Syncom 3 / - / ~~SSA~~

CN-3: 0430^m -

CN1	40	} 6. ✓
	23	
	23a	
	16 ²	

L O 1 8 0



* 4563S. 16/17. | Wed | 1540-1600 | JMB | ? | ¹⁵⁵⁵ ~~2~~ / - ~~2~~ - SS2.
 G 8
 S 56
 R 136

4564E. 17/18 | 1915-2200 | Camp Cooper | - RV-6, Ganymede /
 6th gr. Children | Moon approaching
 Aldebaran. Mars, Jupiter.

4565S. 18/19 | 0920-0935 | Candy Cane school | Ganymede | Cindy kids /
 4566S2. 1100-1120 | Boston | Ganymede | ~25 kids / SS2. Sun.

4566E. 3. 18/19 | ~~190~~ 2100 - 2230 | ~~8~~ - f | Gerry's place /
 Lestie Levi, ~~to~~ Dane Scott | - / ~~8~~ Mars, Jupiter,
 Saturn, etc. M81-82. Cor Corali /
 Gnat: Equus, Ganymede.