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Jarnac Observatory

Log XIII

begins

Monday

13 March 1982

DHLevy

1982

03 82

MARCH

Monday, 1/2

\*5621S. 0900-1745 13-F/JM/Mira 3, Surveyor, Andromeda, Jupiter, Mintaka, others / Kidsworld taping.

Outside observatory filming  
the first of March -

Capt. Stephens - Had fun filming you and your group KIDSWORLD. -  
Wish you could come for a real star party -  
The best

Ronald D. Feenie

You may spend your time observing the stars in the heavens, but we came to observe a couple stars right here on the ground! Thank you, Mike and Dave. It was a terrific day. Good luck.  
Dan Swicklik

Another exciting day! May you have many more days filled with interesting people and stimulating work.  
Judy Stowell

58. 50  
58. 50  
5682M2 0115-0130/2-1-F/JMB/closing of JMs 2,3, and 4.

Tuesday, 2/3.

5683E. 1930-2000/6-F/FP 40/general Jim Cobbin.

Wednesday, 3/4.

5684E. 2000-0000/7-Fm/JMB/Jim C, Ken B./Jupiter,  
Saturn, Penumbra, <sup>Maia</sup>Pegasus, M42, Moon, etc.

5685M2 0430-0615/10-F/JM4, 3, 2/Ken/Jupiter, etc.  
Saturn, Pegasus, Maia.

Ken Burgess - Tonight was one of the most exciting and memorable. None of the fantastic objects would have been observed without the exceptional generosity of David Levy. The observations tonight will definitely be shared with many others.

CN3 0<sup>h</sup>45<sup>m</sup>, E!

Thursday, 4/5.

5686AEM. 0115-0140/7-Fm/Houghton Rd → JMF/  
-1-/general. Alouette.

VSO-I

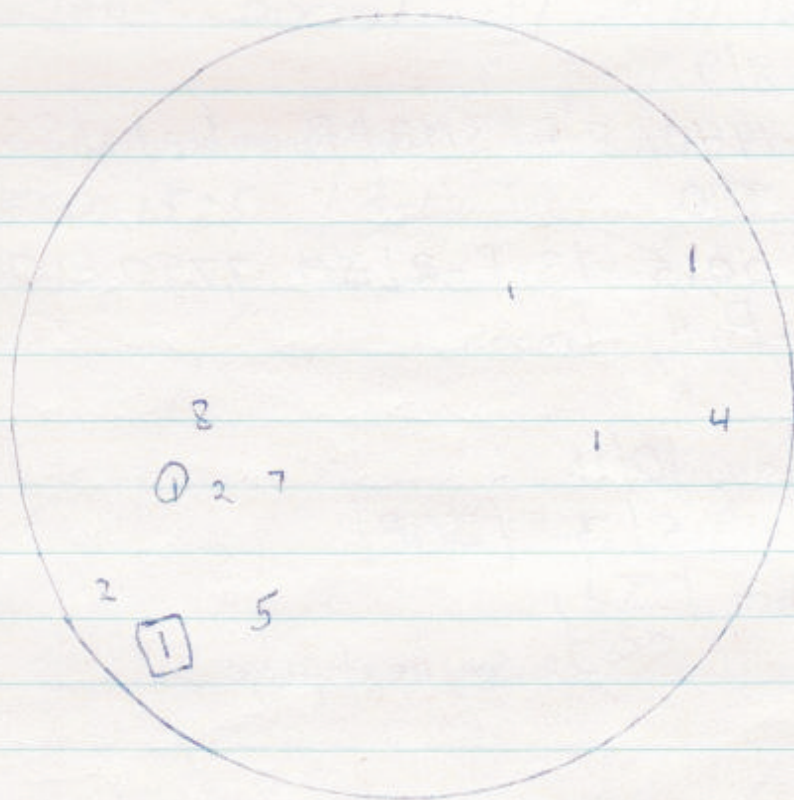
-RGB 6.1

Friday, 5/6.

5687E. 1900-2330/7-Fm/FP40 + TV/Mike/Moore.  
Mars + Saturn.

Saturday, 5/7

5688S 1100-1200/10-F/JMB/Jupiter, Penumbra/Ken Burgess/  
SS2:



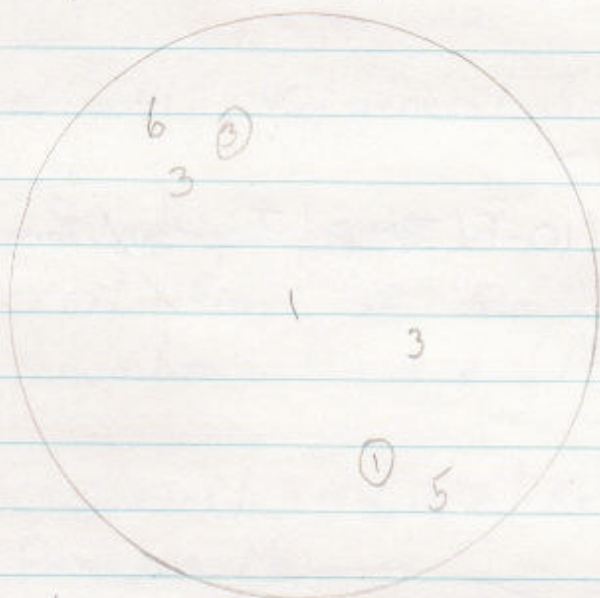
5689S2. 1330-1730/8-Fm/FP40 + Sp/ Sun.

5690E3. 1900-2300/7-fm/FP40 + TV/over 100 people/  
My first night in chg. of telescope. M42, M1, Moon.

Sunday, 7/8.

5691ES. 1300-1730/3-F/FP40+Sp./Sun.

5692E2. 1900-2100/3-F/FP40/Mike/Moon.



Monday, 8/9.

5693S. 1425-1440/8<sup>-3</sup>-F/3MB/Penumbra/-/SS2.

Tuesday, 9/10.

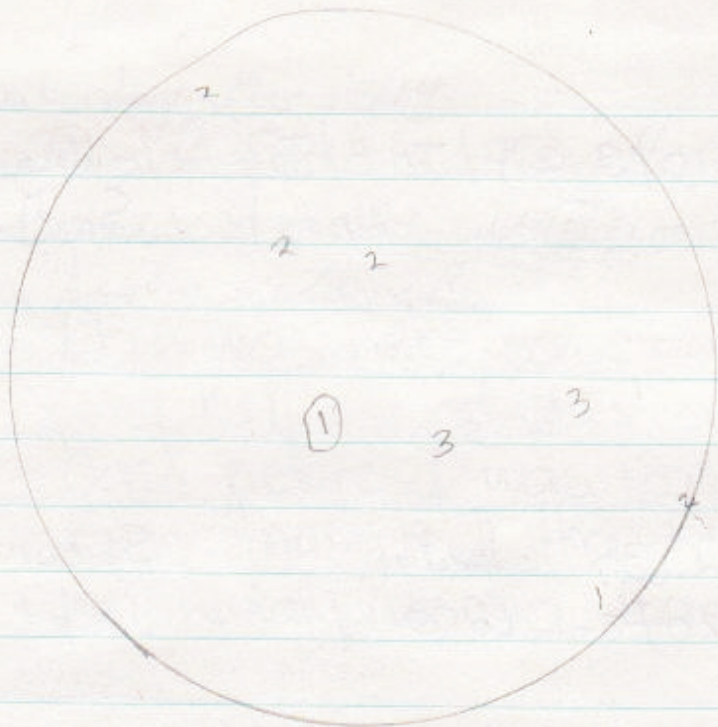
5694SE. 2000-2015-~/3-F-2/3M 7750 E Oakwood 0/  
Eguus/-Billy /moon.

5695S. Wednesday, 10/11.

~1300-~1315/3-F/3MB/

Penumbra / Judy

SS2: see next page.



5696 E2. ~2345--~0000 / 2-F / JMB / Penumbra / - / moon.

Thursday, 11/12,

5697S. 1500-1525 / 2-F / JMB, B / Jupiter, Minerva

(Informal)

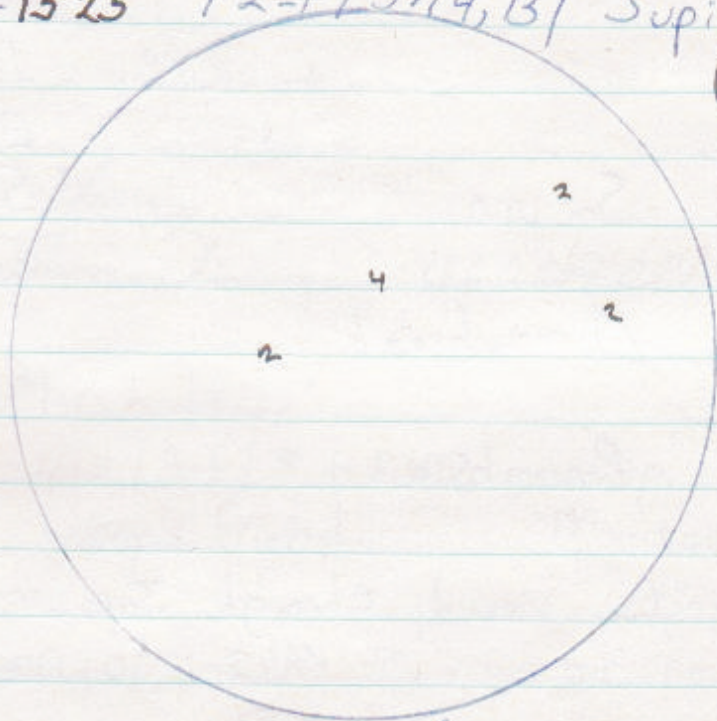
Rededication

for Little

Joe, now

known as

Minerva.



with Minerva.

5698 S2. 1530-1610/3-2-F/JMB/Jupiter/-Virgil/  
Installation of new cover. Sun with  
Penumbra.

clouds at night.

Friday, 12/13. cloudy.

Saturday, 13/14.

5699 ES. ~1400-1620/3-F to 0-f/FP40 + Sp/ Sun.

5700 S2. 1645-1740/3-f/FP40/ Albuquerque group +  
Mike + Jim/ Sun.

\*5701 E3. 2000-0100/10-3-f/ JM2, 3, 4/ Pegasus  
Jupiter  
Io  
Europa  
Saturn  
Ganymede  
Callisto  
Minnawbrook  
Penumbra

Objects viewed through Jupiter.

M42

NGC 4565

M51

as well as in Pega:

M1

Saturn

M3

Mars, Jupiter.



Saturday, Mar 13/14.

03 82

James V. Scotti Tucson!!

Bonnet Stewell WALD

Judy Stowell

Dam was here sometime billions and billions of years ago. Way back before I was really here.

Even though I thought that it was really cosmic. Earth O.K. Goodbye

Albuquerque Amateur Astronomers

WR Wampler

Jim Degrad

Alan Sampson

E. Floyd Valentine

Dorson Kay Dietrich

Andrew W. Strong

Col. MacPherson Dwyer Cal USAF Ret'd. is impressed & grateful.

Sunday, March 14/15.

5702S. 1530-1615 / 3-F / 3 FP40, no sp. this time / Sun.  
Lonny's friend. Monitor dies.

5703S2. 1625-1720 / 3-F / FP40 / monitor resurrected / Sun.

5704E3. 1900-2200 / 7-F / FP40 / Mikel ? Eres. M42,  
Kappa Puppis.

Monday, March 15/16.

\*5705E

2030 - 2330 / 3-1 F / JMB / Minerva /

First Light Rededication Party  
For Minerva.

Jim WUZ HEAR 3/15/82 HERE IS YOUR COMET

Michael Magee - ~~we~~ never seen the Milky Way  
milky than tonight!

Jim Stowell i was her tonight alsoe.

I hope you see billions and billions of  
variating stars for Minerva. Goodluck.

What could be more enjoyable than  
to spend a beautiful night with good friends,  
looking at the thousands of twinkling  
"eyes" in sky and listening to choice music?  
Judy Stowell

Objects: M42 - First  
Mars

CN3: 0 h 25 m

between  
 $\alpha$  and  $\beta$  Crm,  
+ vicinity.

Tuesday, 16/17.

5706M. ~0200-0215-110-F/3MB/-1-/general. Raleigh  
was here earlier.

Wednesday, 17/18.

5707E. 2310-2355/3-2-1-F/3M4, 2/ Pegasus / Mars, Saturn,  
Jupiter.

Thanks David my good friends and fellow  
astronomers for your hospitality and kindness  
to us as always. Your good friend Raleigh & Peggy  
Elysium Pyramids, New Mexico

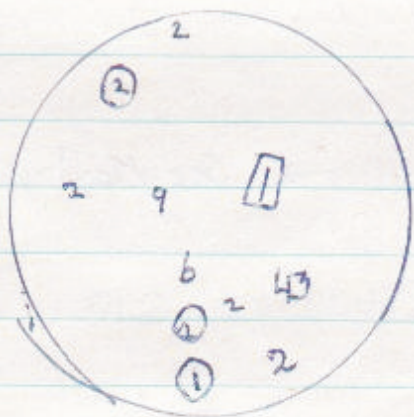
Thursday, 18/19.

5708M. 0105-0120/10-F/3MB/ Penumbra/-/ Jupiter, Saturn, Mars.

VSO-I

— RCB 60.

Friday, 19/20.

5709S. 1100-1300/7-F/KPNO/ Audrey, Irv, Rhoda, Rick/  
Visitor Telescope, Razdow image/  
SS2. Schmidt.

5710E2. 1900-2130 int/8-F/FP40/Mike, Jim, etc,  
Jeanine, Danny / general.

Saturday, 20/21.

5711S. 1310-1730/8-F/FP40+ Sp, Mira 3/-Jim/ Sun.

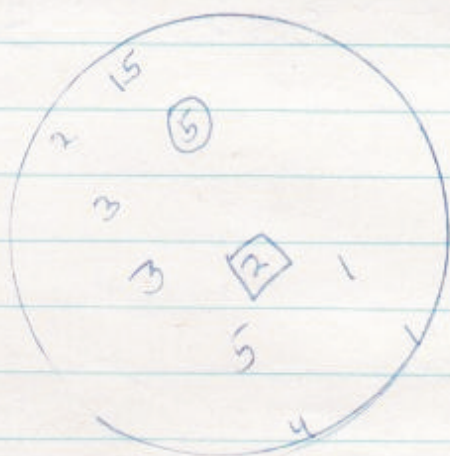
5712E2 1915-1935/7-F/FP40/ Mike, Jim, Maria beth with  
my coat/-M35. Maria beth stayed with  
telescope + public.

5713EM3. 2100-0030~/10-F/Nancy Culbertson's place/  
Nancy, Mike, Jim, others. TAAA Star party  
Minerva saw: M45 M42 Db Cl NGC 4565,  
M1 M3 Mars.

Sunday, 21/22.

5714S. 1300-1730/8-3-2-F/FP40/Jim Stevens/Sun.

5715E2 19<sup>3</sup>00-21<sup>3</sup>00/3-F/FP40/Mike, etc. / M42, Mars.



→ See Monday

Monday, 22/23.

03 82

5716S. ~1600-~1615/8-F/JMB/Penumbra/-/SS2. See preceding page.

5717SP. 1730-1740/10-F/JM South of JMB/-/1-1  
CN5 Sun Ven.

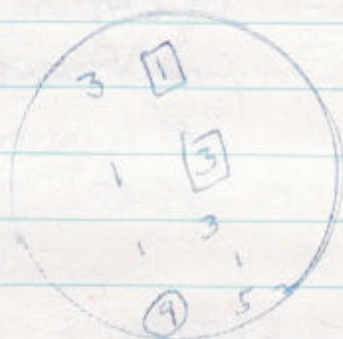
\*5718S3. 1820-1840/10-F/West of JM, at end of Carey St/Virgo/-/1 pictures of Sunset over Kitt Peak!!

5719M4 ~0020-0040-13-F/JMF/-/1-1 VSO-I  
- R GB 6.0.

5720M5 0430-0500/10-3-F/JM4/Jupiter/-/1  
CN3 0h20m E. ✓

Tuesday, 23/24.

5721S. 1410-1425/10-3-F/JMB/Penumbra/-/1-1 SS2.

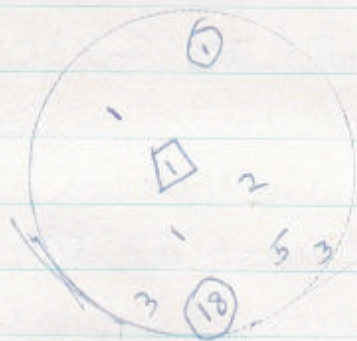


5722MP2 0135-0145/10-F/JM<sup>F</sup>4/-/1-1 VSO-I R GB 6.0. —

5723M3. 0425-0530/10-<sup>6</sup>0-F/JM4/Jupiter, Europa/-/1 until  
down. CN3 0h50m E. ✓

Wednesday, 24/25.

57245. 1250-1515 / 3-F / JMB - 2, 3, 4 / Penumbra, Jupiter, Pegasus



Margaret Elmer Norton 2077 Pauls Inn. Victoria B.C. Can.

Ruth & Terry Hicks, 197 Anderson Ave. Kingston ONT, K7H4V4

Emily & John Drabanski, Rt. 4, Box 93C Santa Fe, New Mexico

Gary Rosenbaum Tucson Az.

Jeanine Stowell Corona de Tucson, Az.

Don Stowell !Official Volunteer!

Judy Stowell

5725EM2 2000-0130/10-F/JM2,4/Saturn, Jupiter,

Pegasus, Europa / - Everyone from above, 1

M51

M1

M65 M66

NGC 4565

M42

NGC 3628

5726M3 0440-0455 / 3-2-F / JM4 / Europa, Io / - / closing  
of JM4.

Thursday, 25/26.

57275. 1300-1320 / 3-F / JMB, 4 / - / - / general.

For Ponchartrain Ast. Soc. - Kevin From N.O.

~~Ken S. Katzberg~~ P.A.S. No. LA.

Friday, 26/27

5728 E. 19 1900-1915/1-F/FP/ Cloud check?, Telescope closed.

Saturday, 27/28.

5729 S. 1300-1351700/ 8-F/FP40+Sp/ 7+ Sun.

\*5730 AN2 1950-0600/ 8 10-F/ JMB/JM4, 2, 3, etc/.

~~Ken S. Katzberg~~ P.A.S. New Orleans La  
Barbara Katzberg P.A.S. New Orleans La

Jennifer Howell

John Lawrence  
Adam Howell

VIP Tucson

James V. Stott

TUSCON (of course)

Robert J. McCarthy

Mariabeth Silkey

James W. Stevens

(Thanks for the view!)

Mariabeth Silkey, Judy Wilson, Elizabeth A. George

Many objects.

CN3

0h 30m E. ✓

Sunday, 28/29. (night, Mon. morning).

5731M. 0500-0515/<sup>3</sup>/<sub>8</sub>-F/ Peggy Shinn's house/-Lonny,  
Gordon, Raleigh. general. dawn.

5732S. 0545-1200/ Very severe sand storm/ Northrup  
Strip, White Sands Missile Range/ many others/  
Nonlanding of STS-3. Mira 3.

Monday, 29/30. (night, Tues. morning).

\*5733MS 0400-1400/10-3-F/ Northrup Strip, White  
Sands Missile Range/ Pictures very successful.  
Landing of STS3. Mira 3.

Tuesday, 30/31.

5734E. 2300-2315-17-F/ Peggy's house/ Mira's finder/  
- VSO-I: RGB 6.0.

Wednesday, 31/32.

\*5735S. 1600-1700/8-3-F/ Clyde Tombaugh's house/  
Raleigh Crausby, others, Clyde Tombaugh,  
Several really unusual telescopes.

9" reflector

16" reflector, f/10

18" refl, f/

4"?? rr

4"?? rl, f/4?



\*5736 E2. 2045-2200 / ~~8-F~~ <sup>2+2-</sup> 3-F / Walter Haas's house /  
12" reflector / Raleigh Crowsby, & Mrs. Haas.  
Moon.

APRIL.

Thursday, 1/2.

Very windy

5737 E. 1900-2100 / Friday, 2/3. / 7-F / FP40 / Mike. / Moon.

5738 M2. 0315-0500 / 10-F / JM4 / Jupiter / - / -

CN3 0h35m E!

Saturday, 3/4.

5739 SE. 1800 - 1900 / 2-F / FP40 + Sp / Demonstration  
Gilbert E. Satterthwaite, Ewen Whittaker.

5740 E2 ~2100 - ~2130 / 3-F / FP40 / Mike. / moon.

Sunday, 4/5.

5741 S. 1300-1720 / 3-F / FP40 + Sp / Sun. /

5742 E2. 1900-2100 int / 7-F / FP40 / Mike. Moon.

Monday, 5/6.

5743 E. 2000-2230 - 13-F / KOA Campground, N. Tucson /  
Walter + Miriam Houston, Rikt Dolores / - / general.

5 April 1982. Tuesday. 6/7

5744S.

Walter Scott Houston - Joseph Meek Observatory  
Myriam Houston E. Haddom et 06423

1300-1345 / 3-F / JMB / Pegasus, Saturn,  
Minnowbrook, Jupiter, Io, Europa, Ganymede  
needs dusting, Callisto, Maia.

5745M.

Wednesday, ~~7/8~~ <sup>7/8</sup> April

~0100 - ~0115 / 7-F / JMB / Maia / -1 8

→?

CN-I: 40, 23, 23a.

Thursday, ~~8/9~~ <sup>8/9</sup> April. ↑?  
cloudy?

Friday, 9/10, ~~8/9~~ 9/10.

5746E.

1900-2130 / 8-3-F / FP40 / Mike. M42 etc.

Saturday, 10/11. ~~9/10~~ 10/11.

5747.S.

1310-1720 / 7-3-F / FP40 + Sp/SUN.

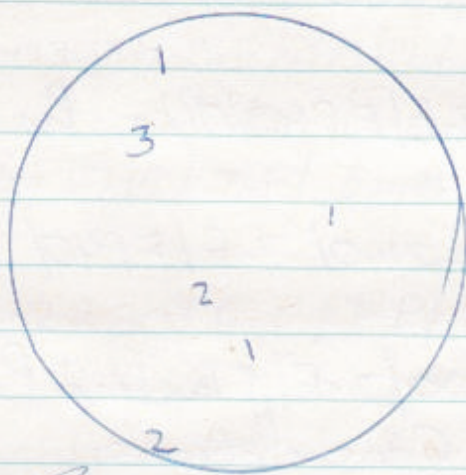
5748E2.

2030-2100 / FP40 + Mike, Girl Scouts, other  
visitors / Mars, Saturn.

5749M3.

0300-0315 / 7-F / JM JM / Saturn, Penumbra /  
Moon, Mars, Jupiter, Saturn.

5757S.  
See next  
page.



Mark Papp 2475 danta P. Brookfield, W.  
Great collection. 53005

Sunday? ~~Saturday~~, ~~11/12-10/11~~ 11/12

5750ES. 1320-1720/8-3-F/FP40+Sp/Sun.

5751E2. 2030-2045/7-F/FP40/Mike/-/Saturn.

Sunday, ~~12/13-14/12~~ ?  
cloudy.

Monday, ~~13/14~~. 12/13

5752M. 0000-0025/3-F/Jacquelyn's house/Virgo/Jacq-  
uelyn, W. II/Moon, Mars, Jupiter, Saturn, M51, M13.

Tuesday, 14/15 13/14.

5753E. 1930-1945 / 7-F / FP40 / Mike, Paula Karp / Mars.

5754EP2. ~~1950~~ 2130-2140 / 7-F / FP40 / Paula, Mike / Saturn.

5755EP3. 2355-0000 / 7-F / Flandrau Planetarium / - /  
~~Mike~~ Paula / Constellations.

5756MP4. ~0120-~0130 / 7-F / Flandrau / Virgo / Jim S. /  
Moon.

Wednesday, 15/16 14/15

5757S. 1620-1640 / 3-f / JM4 / Jupiter, Penumbra, etc /  
Mark Popp / SS-2. See overleaf.

5758M2. ~0300-0315 / 8-f / JMB / Penumbra, Saturn / - / Moon, Mars,  
Jupiter, Saturn.

Thursday, 16/17 15/16

5759E. 2040-2200 int / 7-3-f / FP40 / Jim S, others / Mars,  
Jupiter, Saturn. ~~f~~

5760M2. 03 0230-0245 / 7-f 9-f / JMB / Penumbra, Saturn /  
- / Mars, Jupiter, Saturn.

FRIDAY, 17/18. 16/17

- 5761SE 1930-2130 int | 7-F | FP | 40 | Mike M.  
 5762M2 0300-0345 | 9-3-F | JMF | Mintaka | - | Jupiter, Mars, Sat.  
 Saturday, 18/19. 17/18  
 5763S. 1330-1715 | 7-F | ~~JMF~~ FP40+Sp | Sun.

\*5764E2 1930-2230 | 6-F | FP | 40cm. Telescope, 7 reflectors, 4, 6+8", and Mintaka | Mintaka saw Mars, & Saturn + then Jupiter. Performed exquisitely - Things that go bump in the night. Opening of Lunar rock exhibit.

5765M3 02 0150-0215 | 10-3-F | JMF | - | Mintaka, Virgo / M-11, A Jupiter.

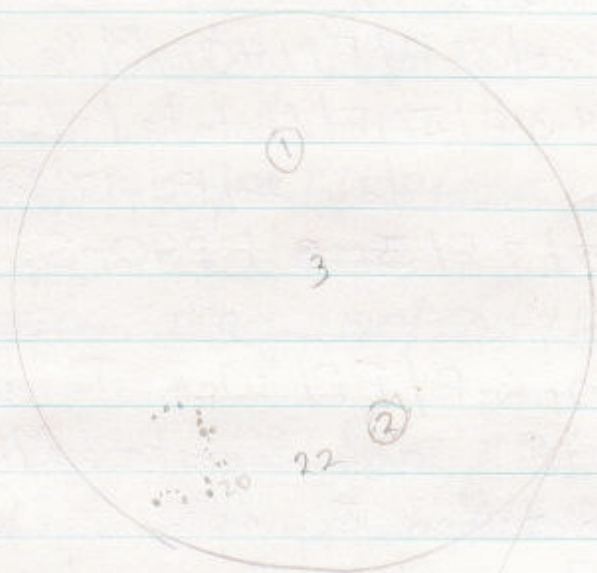
Sunday, 19/20. 18/19.

5766S. 1300-181730 | 1-F | FP40+Sp | Sun.

5767E2. 1900-2100 | <sup>3</sup>int | 6-F | FP40 | Mike | Jupiter, Mars, Saturn, M3. M1! Mike found M1.

Monday, 19/20 through Monday, 26/27.

- 5768M. ~~1530-1~~ 0330-0435 | 10-F | JM4 | Jupiter | - | CN3 1h 00m E.  
 5769M. 0400-0450 | 10-F | JM4 | Jupiter | - | CN3 0h35m E.  
 5770M. 0350-0450 | 10-F | JM4 | Jupiter | CN3 0h40m E.  
 5771M. ~~0330-~~ 0230-0400 | 10-F | JM4 | Jupiter | - | CN3 1h 00m E.  
 (after 577) (Sat 24)



5772S. 1500-1515/10-F/JMB/ Penumbra/ -/SS2.

Desert Museum Sessions.

April 23

5773S. 1400-1600/7-F/D.M./14" Celestron set up,

5774E2 1900-2200/10-F/windy/ Minerva, Celestron,  
A/Scan. (others) ASDM. April Skywatch.

Apr 24

Larry,  
Rich,  
Denise,  
J. McFarlane

5775ES. 1230-1730/7-F/FP40+Sp/Sun.

~~Apr 25.~~

5776SE2 1900-2230/10-F/ASDM. Skywatch. Minerva,  
Apollo, Mithrandir, C14, etc. (Mike, Denny,  
Rich, Denise.

5777EM3 ~~22~~ 2245-0030/10-F/Duane's Star party. 16".  
5771M follows.  
Apr 30, 25, Sunday.

5778S. 1200-1700/7-F/FP40+Sp/Sun.

5779E2 1930-2130int/6-f/FP40/Mike/♂, ♀, ♀.

Monday, Apr. 26. ?

Timothy Challin

5780S. 1600-1900 int/ general. Sun.

Tues, 27/28.

5781E. 1900-2115/ 7-F/ FP40/ Mike, ♂, ♀, ♀. M3,  
Mizar, C.

5782M. 0130-0245/ 10-F/ JM4/ Jupiter /-/

CN3 1<sup>h</sup>00<sup>m</sup> E - ✓Wednesday, 28<sup>th</sup>. nothing recorded.

Thursday night, 28/29/30.

5783E. 2000-2100/ 8-F/ ~~3~~ FP40\* / - Rich / ♂, ♀, ♀.  
Operated 16".

5784M2. 0400-0440/ 83-F/ JM4/ Jupiter /-/

CN3 0<sup>h</sup>25<sup>m</sup>. -/

Friday, 30/31.

5785E. 1900-2230/ 3-F/ ASDM / Minerva, ♀ Apollo,  
C14, 6"rr / Diane, Rich, Denise, Larry / Moon, ♂ ♀, ♀.  
Desert Skywatch.

Sat May 1/2. cl?

Comet hunting this lunation. 5<sup>h</sup> 15<sup>m</sup>. ✓

MAY

2/3, Sun.

5786LS. 1300-1730 / 7-F / FP40T Sp / Sun.

5787M2. 0200-0245 / 10-F / JMB. general. JM4 / Jupiter /  
CN3 0h 35<sup>m</sup> E. ✓

3/4, ~~Tuesday~~ Monday - nothing recorded.

4/5, Tuesday. cloudy.

Wednesday, 5/6.

5788M. 0200-0215 / 8-F / JMB / Penumbra, Saturn.  
Moon + Jupiter.

Thursday, 6/7.

5789M. 0200-0215 / 8-F / JMB / Penumbra, Saturn.  
Mizar, Moon, Jupiter.

Friday, 7/8.

5790SE. 1900-2030 / 8-F / JMB / Jupiter, Io, Europa,  
Ganymede / Moon Jupiter, Saturn.  
Ganymede performs well. Raleigh, Tracy, Dan.

Saturday, 8/9.

5791S. 1250-1730 / 7-F / FP40T Sp / Sun



5792E2 1935-2135 int/6-7-Fm/FP/New name:

Galadriel

(Mike) planets.

Sunday, 9/10.

5793G. 1300-1710/8-F/FP/Galadriel, Sp/-/Sun.

5794E2. 1900-2130 int/7-F/FP/Galadriel (Mike)/general planets. & Vir. M3.

Troublesome visitor in obs.

Monday, 10/11.

5795E. 2030-2045/9 1/2-F/Marana Air Pk. Rd?, First Pinal County I-10 Northbound (W-bound) exit. / Syncom 3/-Jim Scotti

CN3 0h 15m NW. -√

5796M2 0400-0415/7-F/3MB/Penumbra, Saturn/-Moon.

Tuesday, 11/12.

5797SM. 0110-0125/8-F/3MB/Penumbra, Saturn/  
Moon, Mars, Jupiter, Saturn  
S S PS S

\*5798M2 0215-0235/7-3-F/3MB/Test-First session for Jarnac on Surveyor's mt.

Wednesday, 12/13.

David - Great Job!! It shouldn't be long before  
you find a comet in one of these 60 telescopes!

The "Planetary Spokasman"  
of Peter J. O'Hara  
Sky & Telescope

Dave — thanks for the chance to see some  
new (non-planets) heavenly bodies.

J. Kelly Beatty  
Sky & Telescope

\* 5799 E. 2230-2345/10-F/5M4/Jupiter/see above/M51,  
Jupiter, etc.

Thurs, 13/14 — ? nothing recorded -

Friday, 14/15

Yours one of the most interesting  
collections I've seen. Thanks for the  
opportunity

Gene Keller DAS.

We will tell the DAS what a former  
member has done.

Merrill Manion

Billions and Billions of good  
observations.

Don Howell "Volunteer"  
Derald Nye - again!!

Well here I am once again, This time in the Day.  
I think the "T" on the Alan Clark stands  
for "T-Bone Steak". Don't let anyone cows  
"steer" you in the wrong direction, before you "steak" out  
the land fast.

Stephen J. O'Hearn

58005. 1630-1715/8-F/SMB/ Penumbra/see above/Sun.

5801E. 1900-2100 int./Galadriel/FP.

Saturday, 15/16.

5802LS. 1300-1730/8-F/FP./Galadriel/Sun, sp.

Sunday, 16/17.

5803S. 1300-1730/8-F/FP./Galadriel/Sun, sp.

5804E2 1900-2200 int/FP/Galadriel.

Monday, 16/17 - ~~Fri~~ 2 Thu. 20.

58051.0N3 30m E! 58064.CN3 50m E!

58 80  
Friday, 21 May.

5807M. 0100-0200. 110-F/JM4/Jupiter /-/ CN3. 0<sup>h</sup>40<sup>m</sup>. ✓

Saturday, May 22.

5808S. 1230-1730/ FP/ Galadriel/ Sun + sp.

5809M2. 0030-0200/ Duane's house/ TAAA Star Party.

Sunday, 23/24.

5810S. 1230-1730/ 8-F/ ~~3~~ FP/ Galadriel + sp/ Sun.

5811E2. 2000-2200 int/ 7-f/ FP/ Galadriel / Mike / Jupiter,  
Saturn.

Monday, 24.

5812 ~~5812~~ M. 0200-0315/ JM3, 4/ Gerald Schieven/  
Pegasus/ Jupiter/  
CN3 1<sup>h</sup>00<sup>m</sup>. ✓

Galaxy in Pegasus. cometlike.

Tuesday, 25.

⊕ 5813E. 2030-2200/ 10-F/ Lowell Observatory /  
Charles Capen, Mike Magee, Gerald, /  
. 24" and 12" Clark refractors/ Mars, ♃, Jupiter.  
Poor seeing. Saturn provided best view I've seen  
anyway. What an awesome telescope.

5814EM2. ~2300-0030~ / 11-F/ Anderson Mesa site,  
Lowell observatory. / 30" reflector / Mike, Gerald,  
James. / Look through telescope. Uranus naked eye.

Wed, 26.

5815 E. 2000-2100 / 7-f / FP. / Galadriell / Planets.

Thu, 27.

5816 EMP. 0000-0010 / 8-f / Yuma, Motel 6 / Mira 2 / Jupiter, Moon, Albireo.

Fri, 28. - Riverside -

5817 E. 2000-0000 / Camp Oakes, Riverside / many telescopes, people. Mira 2.

Sat, 29.

5818 S. 0830 - 1800 / 10-f / Rside / many scopes + people.

5819 E2. 1900-2000 / 10-f / Rside. —

5820 E3 2100-0000 / 8-fm / Rside. —

Sunday, 30.

5821 S all day / 10-f / Rside. Sun in H<sub>α</sub>. —

5822 EM. 2030-0015 / 9-fm / Rside / 8" Edmund r1 / Norm Sperling, Rik, Mike, Rich, others / Uranus, M13, etc.

Monday, 31.

\*5823 S. 1400-1600 / 8 10-f / Mt. Wilson / Mike, Terry, Larry / 150' Solar tower. 100" + 60" telescopes, + outside of Snow telescope.

5824 E2 ~2300-2315 / 8 3-f / Anaheim, Sixpence Motel / Mira 2 / Moon.

June.

Tuesday  
~~Monday~~, 1.

5825S. 1500-1630 / 8-F / Mt Palomar. (Slewing of 200")  
Mike and Terry.

5826EP2 ~2300-2310~ / 7-f / Yuma, Motel 6 / Mira 2 / - / Moon?

Wednesday,  
Tuesday, 2.

5827#E. ~~2000-2200~~ 2130-2200 / 8-f / ~~JMB~~ FP Galadriell / general. Suzy.

Thursday, 3.

5828S. 1715-1730 / FP / Galadriell / Sun. / Lonny.

5829E2. 2130-2200 / FP / Galadriell / Suzy.

5830M3. ~0000-0015 / 8-f / JMB / Saturn / - / Jupiter.

Friday, 4.

5831E. 1915-2230 / 8-f / Gilbert Ray / picnic. / Rigel,  
5"rr, 6"rl / TAAA. Duane praises Rigel!

Saturday, 5/6.

5832E 2045-2130 / FP / Galadriell / <sup>many</sup> others / operated  
telescope for this time; we looked at Jupiter.

Sunday, 6/7.

5833MP 0000-0010 / Peggy Shinn's house, Las Cruces /  
Mira 2.

Las Cruces.

06 82

Monday, 7.

5834.S. 1100-1130 / Alameda School / Mira 2 / Sun.

\* 5835 E. 2000-2130 / 7-F / Clyde Tombaugh Observatory,  
UNM Campus / ~~M~~ Students, Teachers, parents /  
5?"rr, 12?"r1 / Fine rr views of  $\epsilon$  +  $\eta$ .

Tuesday, 8.

5836 M. ~ 0000-0015 / 8-F / Shinn house / Mira 2 / Moon,  
Jupiter, Saturn. Good images when Mira is  
mounted.

Wednesday, 9

5837 S. 1120-1135 / 7-F / Alameda / Mira 2 / Sun.  
5838 MP ~ 0000-0015 / Shinn house / Mira 2 / see above. same.

Thursday, 10.

5839 EP ~ 2300-2310 / Walter Haas' home / general.

Friday, 11.

5840 E. 2035-2200 / 10-F / JMB / Jupiter, Saturn,  
Penumbra / ~~M~~ M51, M57, Jupiter, Mars, Saturn. /  
Judy, her sister's family, Bonnie, Raleigh.  
Dorothy, Bob, Lance, Teresa Paradis.

5841 MP2 ~ 0120-0130 / ~~10~~ 7-F / JMB / closing of observatories.

Saturday, 12.

5842 S. 1600-1620 / 7-F / FP / Galadriel / Mikel Sun, H $\alpha$  in finder.

5843 M2 1225-1250 / 7-F / JMB / Pegasus, Saturn, Jupiter. Reg. serv. Red spot color pass.

Sunday, 13.  
5844 E. 2015-2100 MDT / 10-F / I-10 E. of Tucson / Volcanic cloud.  
5845 EP2 ~2200-~2210 / 10-F / I-10 at NM border / R CrB 6.1. —  
5846 EP3 ~2300-~2310 / 10-F / I-10 in NM / general.

58475 1 8" 7" f/1 1926.  
1100-1120 / 8-F / A (aged) School. Monday, 14.

[ 7. Cut out of a 10" F/5 left uncoated. 4" primary  
Sun. Mira 2.

\*584892. 1500-1715 / 8-F / NMSU / ~10 yrs ago.  
Clyde Tombaugh's Sun telescope - Clyde Tombaugh, others / Discussion  
2. 1927 (not around) for his uncle. about his

3, 2. 9" 1928 F/9 telescopes (see accompanying notes)  
plus sun observation.

4. 5" f/4. first RFT. Now finder for 16". 1933

5. 75" f/1. 5" cut out of the first 8". 1934.  
cut with a coffee can.

6, 7. 2' 12" mirrors around 1934. f/12 1/2 Thicker one  
annealed plate glass. slightly  
overparabolized.  
Thinner one to make lap, then made mirror.

8. 12" for the N. Dome at Tombaugh Obs.  
rest made by Fecker. circa 19  
late 60s.

10" F/5 in square plywood tube. ~1943/44

6" 38" f/1 concave mate for a Cass, → 4 yrs ago.  
used at USNM for star parties.

turned out much better

16" finished 1960. 8mm x 524 power for 16".  
18" - he'll cut hole in it this summer. matches Lowell.

use it as a Cass 115" f/6.

20" Couder F/8. Couder disc. Thin disc.  
No problem if supported properly. mtd. alt.



#584852.  
cont'd.

<sup>cancel</sup>  
lines on Mission. Too low power, bright areas  
pushed "canals" in, making them look thinner + straighter.  
his downfall was too low power. 106 82

favor longer F1 even for

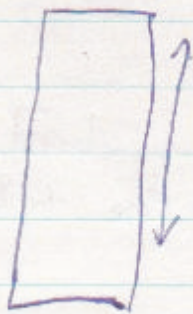
F/5 1/2 lowest minimum.; F/6 for any  
estimate aperture.

100,000 meteors in Leonids '66.  
in two hours.

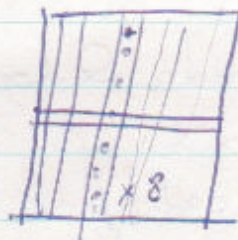
west side of house.  
3-4 dozen contrails at once.

90 million  $\pm$  1 million with the blink comparators.  
star images. 1929-1945.

8 3/4" strips of wood, exactly 11 and same width,  
to support thin 12".



cardboard and carpet on top  
of wood <sup>sub.</sup> + mirror on top of that.

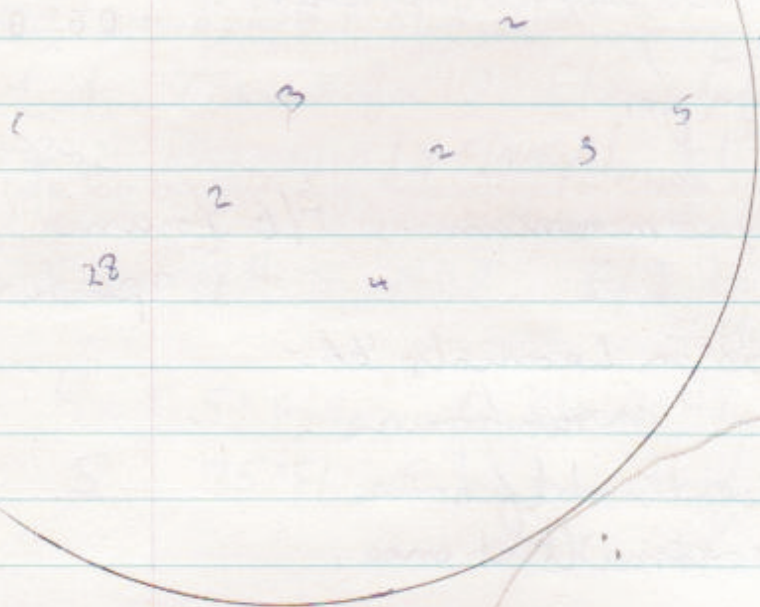


14" pine wood. 7 1/2 x 14" each.

intended originally to make laps.  
I was truly surprised at the performance  
of the thin 12".

646-2107 office  
526-9274 home.

\*5848S2, conc'd.



5849E3. 2030-2130/7-F  
Cosmos II / Alameda School /  
Kids + parents. / MARS,  
JUPITER, SATURN.

\*5850 E4. 2230-0100/3-F /  
24" BC, A mtn + other  
telescopes |  
Mars, Jupiter, Saturn.

see  
5851S.

Poor seeing but fine telescope.

Tuesday, 15

5851S. 1100-1130 / 8-F / Alameda School / Mira 2 / Sun.

5852M. 1200~ - 1220~ / 10-F / Road block site, White Sands  
Missile Range / 8 - 1 - 1 general obs.  
- R Cr B 6.0.

Wednesday, 16.

5853S. 1100-1120/8-F/Alameda School/Mira 2/kids/Sun.

\*5854E2. ~~1100~~ 2000-2300/6-F/Clyde Tombaugh's house/  
16", 9" telescopes/Clyde Tombaugh, Raleigh  
Crausby/-Mars, Jupiter, Saturn. Seeing  
6t. Crepe ring fine with 16". Spokes??

Thursday, 17.

5855S. 1100-1130/8-F/Alameda School/Mira 2/kids/Sun.

\*5856E2. 2100-2300/3-F/~~Alameda~~ Walter Haas's house/  
Walter & Peggy/ ~~Mars~~ Jupiter, Saturn, Uranus,  
M13. /Cave modified 12". home built with Cave  
optics.

Friday, 18. MDT

5857E.P. ~2330-~2340/8-F/I-10 someplace, /-/-/general

MST

5858MR2 ~0100-~0110/10-F/I10 near Texas Canyon /-/-/general.

MST

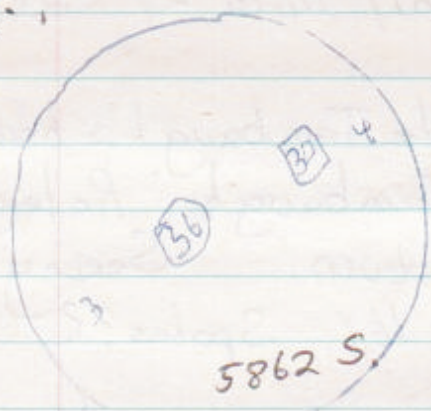
5859M3 03:0230-0400/10-F/JM4/Jupiter/-/

CN3 0h 50m. ✓

Saturday, 19.

5860E. ~~1900~~ 2015-0100/9½-f/Saguaro Mon. w/TAAA  
+ Saguaro club. (Rigel. + other telescopes,

including a 17 1/2" Coultter that wouldn't focus clearly. Comet Powell, planets, stars, nebulae. Didn't miss a thing!



5861M2. 0230-0400 / 10-F / JMB / Jupiter / -Gene Lucas + Friend. / CN3 0h 30m E. /

Sunday, 20.

5862 S. 1100-1200 / 10-F / JMB / Penumbra, et c / see below, Sun. see above SS2.

lots of spots today - Milky Way was beautiful last night! Exceptionally clear air here -

I'm full of envy. Thanks, Dave, for having us over!

20-06-2 Gene Lucas

20-06-2 Dwight & Roger

David + Janet, Barbara + Brenda Chandler  
Thanks for inviting us by. We enjoyed the  
star party + the tour! 6/20/82

5863S2. 1300-1700 / 8-F / FP / Galadriell / + sp / Sun.

5864 E3 2000-2200 int / 6-F / FP / Galadriell / - / general.

5865 E.

2030-2115 / 7-F / Gerry's house / 7-F / Epvost / Billy, others / Jupiter, Saturn. → Mon, 21.

~~5863 M.~~ 0200-0220 / 8-F / Jupiter.

5866 M.

CN3. 0h 10m E / J

Tuesday, 22  
7 E. 2130-2145 / 6-F / FP / Galadriel / general.  
5866M. 0230-0315 / 10-F / JM4 / Jupiter / - /  
CN3 0h30m E. ✓

Wednesday, 23.

~~5868M~~ & sorry. 5868E. 2000-2200 / 10-F / JMB /  
Derald, Judy, Danny, Bonnie + friend / Maia, Pegasus,  
Ceres and Jupiter with Ganymede  
CN3 1h00m W. ✓

5869M2 0000-0200 int / 10-F / JM4 / - / sleep-out at  
JM4.

5870M3 0300-0400 / 10-F / JM4 / Jupiter / - /  
CN3 1h00m E. ✓

Thursday, 24.

5871M 0100-0230 / 10-F / JM4 / Jupiter / - /  
CN3 1h00m E. ✓  
with KNX radio.

Friday, 25.

5872E. 2000-2200 int / 7-F / FP / Galadriel / general. Jim  
Canon.

5873M2. 0300-0400 / 10-F / JM4 / Jupiter / - /  
CN3 0h40m. ✓

3. Saturday, 26.

5874S. 1400-1730/8-F/FP/Galadriel/Sun.

5875E2. 14<sup>00</sup> 2030-2130<sup>int</sup>/7-F/FP/Galadriel/general.

5876M3 0230-0300/10-F/JM4/Jupiter/-/

CN3 0<sup>h</sup>20<sup>m</sup>E!

Sunday, 27.

5877S. 1300-181740/8-F/JM4/Jup Galadriel + sp/-/Sun.

5878E2 2110-2200int/7-F/FP/Galadriel/Jim S./general.

5879E3

Robert Schalk Dennis Gallagher  
Chuck F. ...

Asst Director of TELESCOPE MAKERS WORKSHOP  
AT OAKLAND CALIF. CITYSBOT OBSERVATORY  
20" REFLECTOR, 8" REFLECTOR.

2300-0000/7-Fm/JMB/Penumbra,  
Pegasus/-Robert E. Schalk + 2 friends/-M57.

5880M4 0330-0415/10-F/JM2/Pegasus/-/CN3 0<sup>h</sup>20<sup>m</sup>E!

Monday, 28.

5881E 233 2000-2030/8-F 3-F/J. Mike's house/  
Skylab/Mike/Eest. Moon.

Tuesday, 29.

5882E. 2115-2130/3-F/FP/Galadriel/Rich W/ straight  
wall.

Wednesday, 30.

5883E. 2030-2200 / 7-fm / JM4 / Jupiter / Judee / best yet of Jupiter's interpretations of Jupiter.

5884M2 0100-0300 int / 7-fm / JM4 / - / - / sleepout.

5885M3. 0315-0430 / 10-f / JM4 / Jupiter / - / CN3: 0<sup>h</sup>40<sup>m</sup>E

Thursday, July 1.

5886ES. 1400-1415 / 10-f / JM2 / opening of Pegasus.

5887E2 2130-2215 / 8-f / JM2 / Peg, Sat / Ferdies / moon, planets.

5888E~~A~~ #M3: 0200-0215 / 3?-f / JM2 / closing of Pegasus.

Friday, July 2.

5888E. 2130-2150 / 8-f / -FP / Galadriel / Jim S / Saturn.

5889M2. 0300-0400 / 3-f / JM4 / Jupiter / - / CN3 0<sup>h</sup>20<sup>m</sup>. ✓

\*5890M3 0415-0430 / 3-f / JMF / - / - / Volcanic cloud - early very red dawn. ~1<sup>h</sup> before sunrise.

~~Saturday~~ <sup>Sunda</sup> Saturday, July 3, Saturday. No sessions?

Sunday, July 4.

5892 E. 0300-0315 / 3-f / JMB / ~~#~~ Saturn / Moon.

Monday, July 5.

\*5893S. 1000-1200 / 3-f / JMB / almost all telescopes / Dan Fellner, Channel 13.

5894 AN2.

July 5/6 1982

1900-0400 / 2-3-9-F/

Saturn's 50<sup>th</sup> Lunar Eclipse

JMB/

Wendy M. Russell  
Amy Stowell

Phil and Janine Cockrell

Jim Lamm

Bonnie Stowell

Kewan & Vansolo

Lamin Coed

Michael Magee

Hannan + James Scotti

Roy Stowell

Juzy Hurton

Stewart Cramed

Mitch Bakich → Darker! (Thanks to the clouds!!!)

REBECCA BAKICH

Danice Wortley & Richard Wortley

Paul H. Gray - July 5-6, 1982

Lunar Eclipse

plus

Saturn's 50<sup>th</sup> birthday.

Telescopes: 8, 8, 6? plus

Mira 3, Pegasus Minnowbrook, Mike,  
Jupiter, Ganymede (pictures), Propus,  
others.

Eclipse: 0-1-Durjon.



Tuesday, 6/7.

07 82

5895E. 2030-2200 int/ 7-F/ FP/Galadriel/Rich/general.  
Wednesday, 7/8. - none recorded. Thursday 8/9 none rec.  
Friday, 9/10.

5896E. 2100-2200/10-F/ South site/ Syncom 3/-/  
CN3 0h 30m NW. ✓  
Saturday, 10/11.

5897E. 2030-2200/ 7-F/ FP/Galadriel/I operated.  
Jupiter, Saturn, M13, M57.  
Sunday, 11/12.

5898E. 2130-2200/8-F/ FP/Galadriel.

5899M2 0400-0415/ 7-Fm/ JM3/Maria/ CN3 0h 05m E.  
Monday, 12/13.

5900E. 2100-2130/ 7-F/ Larry's house (-) Dennis etc/general  
Attempt to split  $\epsilon$  Lyr naked eye.

\*5901M2 0330-0415/ 7-Fm/ JM3/ Virgo, Saturn (-)  
CN3 0h 05m E. ✓ First Light For Virgo in  
JM3. First object: NGCs 869-884.  
Tuesday, 13/14.

5902E. 2030-2200/ 7-F/ FP/Galadriel/ Jim + others.  
operated telescope  $\delta$ ,  $\gamma$ ,  $\kappa$ .  
Wednesday, 14/15.

5903MP 0240-0250/ ~~10~~ 2-F/ JMF/Mira 2/-/ Moon.  
Thursday, 15/16. Rainy.  
Friday, 16/17. cloudy?  
Saturday, 17/18.

5904EM 2200-0200/ 2-F/ Echo Valley obs. / Mercury / - TARA  
+ others  
Star party /  $\beta$  Cyg, M31, M57.

Sunday, 18/19.

5905E. 1930-2100 / 3-F / Derald's house / H. Derald + Denise, Cliff + Jackie / 2 Satellites moving in same apparent course

5906 M2 0100-0300 intl 3-F / JM4 / - / - / obs. sleep out.  
Monday, 19/20. cloudy.

Tuesday, 20/21. - cloudy. - see below for  
Session \*5915E and \*5916E2.

5907M. 0400-0415 / 3-F / JM3 / Virgo / - / CN3 0h10m E

5908M <sup>Wed 21/22 - cloudy</sup> 0335-0415 / 3-F / JM4 / Jupiter / - / CN3 0h20m E ✓  
<sup>Thursday 22/23</sup>  
? Friday, 23/24. - cloudy. Sat. 24/25

5909M. 0215-0230 / 2-F / JM3 / Guy Westcott / - / - / general.

~~Saturday, 24/25. cloudy. Sunday, 25/26.~~

5910M. H4 + 2 1145 - 1230. / 3-F / JM3,4 / Jupiter, Virgo /  
Guy Westcott RASC WPC CENTRE. (M13 the best I have ever viewed a)  
Len Gamache RASC WPC Centre (wonderful instrument.)

5911E2 before 5910 / 3-F / FP / Galadriel / others / 2015-2100 /  
5912E3. Should be before 5910. / 1030-1040 / 7-F / Tucson /  
view of Big Dipper dropping in NW.

5911E2 I operated Galadriel.

5913E4. before 5912. 2115-2135 / 3-F / FP / Galadriel / - 4  
Guy, Len, Lisa / Moon.

5914M5. 0100-0400 / 10-3 / JM4,3 / Stephan's Quintet  
Jupiter, Virgo / 7320 is brightest member  
~~8 Aurigae~~ 7331 is nearby. 30' e. in SQ.  
35 meteors observed over period of observation,

CN3 1h05m E ✓

\*5915E. before 5907. 2000-2050 / 3-F / FA / Echo + others /  
Star Party Echo performing very well.

\*5916E2. 2210-2245/3-F/FP/Echo + Jarnac II + Andromeda + other telescopes/Duane, others/ conclusion of star party. planets. mostly Jupiter.  
Monday, 26/27.

5917E 2030-2100/2-F/JMB/-/Jim + Karen/-

5918M2 0130-0200/3-F/JM2) Regulus/ Jim, Guy/Stephen's  
& Quintet (only 1 seen) + NGC 7331.

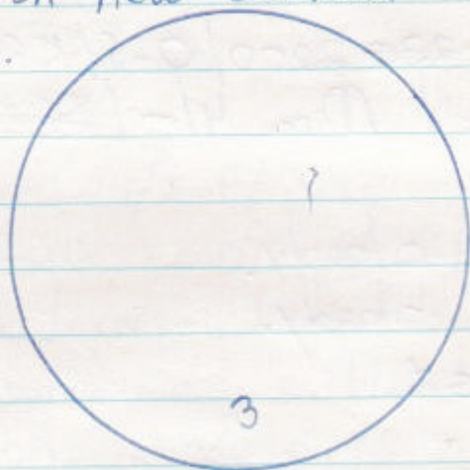
5919M3 0315-0415/3-F/JM4/Guy/ Jupiter/ CN3 1<sup>h</sup>00<sup>m</sup>E  
Tuesday, 27/28.

\*5920S. 1230-1430/3-F/JM/ various / KGUN TV/general.  
filming for feature

5921S2. 1500-1600/3-F/JMB/ Penumbra / others/ Sun.  
SS2: see disk below.

5922E3 21030-2130int/3-f/JMB/FP/Galadriel/-Mike Magee,  
others/Moon, planets.

5923M4. ~~2200~~ ~0100 ~0200/2-F/JMF/Mercury | - /  
test with new barlow. good image now. or better  
at least.



5921S2.

Wednesday, 28/29.

\*5924S. 0900-1100 (JM/3-f/ various/ KGUN interview.  
for feature.

Wednesday July 28

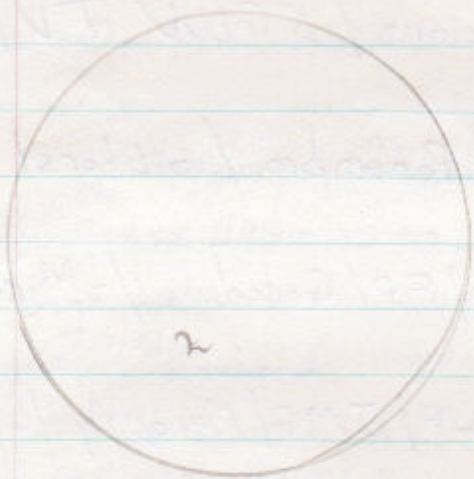
\*59245 conc'd!

GENE EINFRANK 824 E. MITCHELL TUCSON, AZ.  
Lyman S. Ketchum KGVN-TV Tucson, AZ.

5925E2. 2000-2030/3-F/3MB/Saturn, Penumbra/ others/  
Moon, Jupiter.

5926MB. 0030-0045/2-F/3MF/Mercury/ -/Moon. etc.  
Thursday, 29/30.

5927S. 1250-1305/83-F/3MB/Penumbra/ -/Len G/ Pan. SS2.



5928E2 2000-~~230~~ 2200/0-F/KPNO/Winnipeg Friends  
+ Gary Mechler/ Mira 4/-/ - General, Moon  
later.

Friday, 30/31. cloudy.

Saturday, 31/32. cloudy.

August.

Sunday, 1/2.

5929M 0000---0030/2-f/3MB/Saturn/new cover/moon.

5930M2 0350-0420/10!!-f/3M:4/<sup>13 Jupiter!</sup>insomnic - so I noticed  
it suddenly turn from Cirrostratus to clear at  
20345!/-/ CN3 0h15mE. ✓

Monday, 2/3.

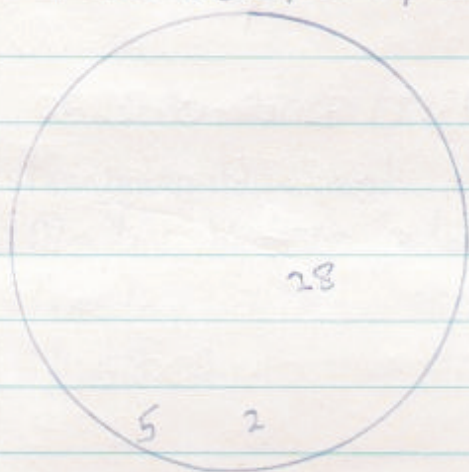
#03 82

5931S 1200-1230 / (Jupiter/Danny/Jupiter's moving inside.

5932M2. 0110-0125 / 2-1-f / JMF / Mercury / - / Moon. with clouds. Beautiful.

Tuesday, 3/4.

5933S. 1210-1225 / 3-f / JMB / Penumbra / - / SS2.



5934E2. 2130-2150 / 3-f / JMB / Penumbra / - / moon.

Wednesday, 4/5.

5935M. ~~210~~ 0100-0115 / <sup>2-</sup>3-f / JMB / putting instruments Virgo + Penumbra away.

Thursday, 5/6.

5936S 0800-0815 / 2-f / JMB / - / final good bye for summer.

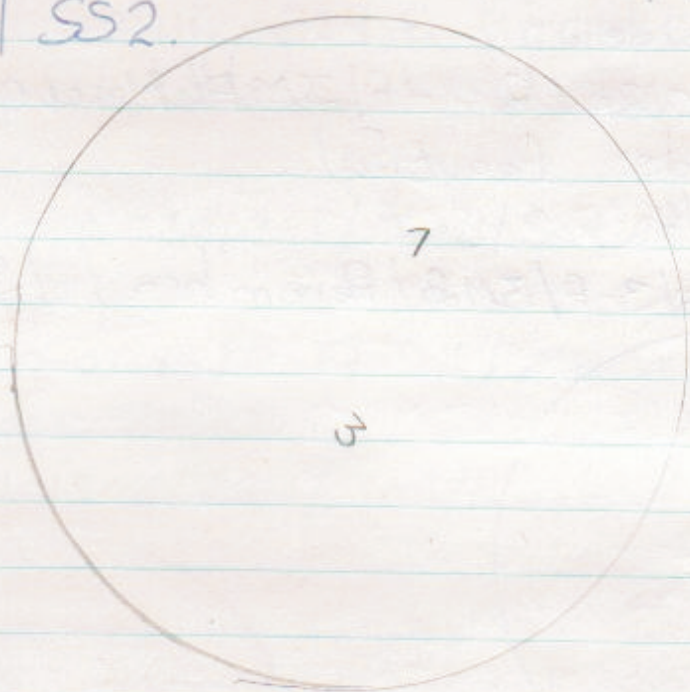
5937E2 2105-2200 EDT int / 3-f / plane Chicago to Mt / 4 cloud layers - had flown through 3 of them; Fourth some widely scattered + distant + cirrus. Moon

\*5938M3 0100-0130 EDT / 6-7-f / 3 WS / Minerva HAND-HELD / - no problem with full moon - found moon M57, Bcyg, M31, Db Cl. despite moon + lights of downtown Mt. Fri 6/7 ✓

5939E 2000-2200 / 9-f / JSL / - Minerva / - / CN3 0h30m W. Aurora overhead.

Saturday, 7/8.

59405. ~~1530~~ 1630-1650 / 3-F / JJD / Mira 2 / Mom and  
Dad / SS2.



night - cloudy  
Sunday, 8/9 - rain  
Monday, 9/10 - cloudy  
Tuesday - 10/11 - still cloudy  
Wednesday - 11/12 - clouds, rain  
Thursday - 12/13 - drizzle  
Friday, 13/14 - cloudy  
Saturday, 14/15.

\* 59415 1130-1830 / 3-F / Stellafane / many instruments and  
people / - Stellafane meeting.

\* 5942 E<sup>M</sup> 1900-0230 / 10-F / Stellafane / good obs. session, incl.  
Philip Morrison's talk on Quasars. Nice sky. Used  
mostly Mira 4, a 22" + 16" reflector. Peter.  
Sunday, 16/15.

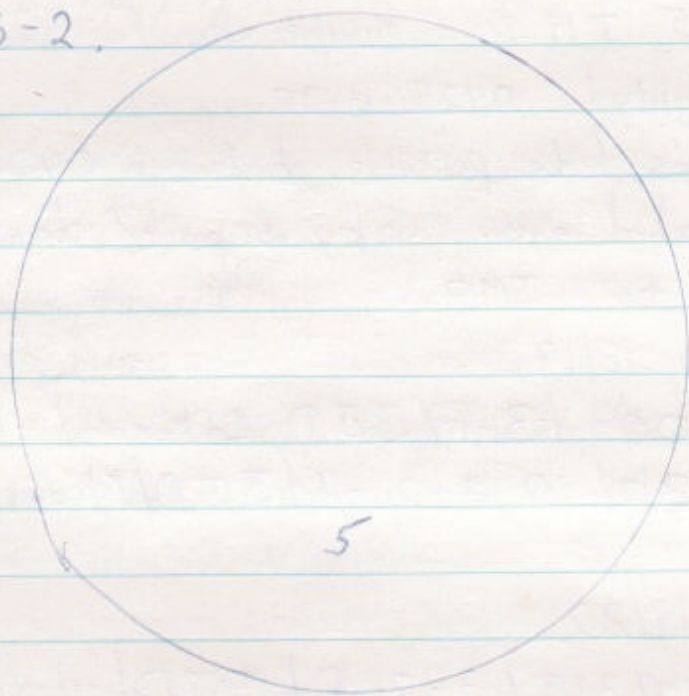
59435. ~1200-1300 ~ 17-F / Stellafane / <sup>The</sup> Holmes, David Brown, Bill Struble.

\*594452 1530-1550-13-F/Twin Lake Camp/-/D. Brown, B. Strople/  
picture of exact site from which I had a very early  
observing session, either '57 or '58, from Bunk G. See  
Blog 1, Session C.

\*5945 SE3. ~1900-1945-10-F/Adirondack Science Camp/~~David~~ Mira  
2/ David, Bill/ Test of Mira. View of distant ridge.

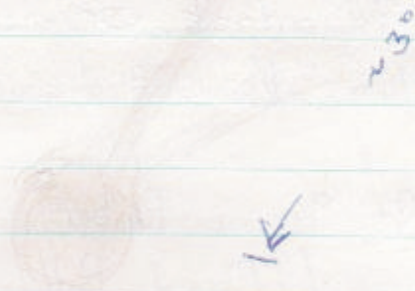
5946 E4 ~2030-2100-10-F/Rt. 9 near Reber cutoff, to  
Pocomoonshine and 87 area / David, Bill/ Volcanic sunset.  
Monday, 15/17. - cloudy.

5947 S. Tuesday, 17/18. 1600-1700. 13-F/<sup>J-J-D</sup>Jarnac/ Mira 2/  
-1 SS-2.



\*5948 E2. 2030-2300/10-F/JJ, Lake and lakefront/Minerva/-  
Mom and Dad checking every 15 minutes/-1 successful  
search for comet Austin. Low in North, seen with  
naked eye at Mag. 4 near horizon. Finder's view  
showed a fuzzy smudge. Minerva showed 3° tail.  
Then, from 10:15 to 11:15 - CN3 1<sup>h</sup> 00<sup>m</sup> SW. ✓

View of comet Austin from boat:



5949M3 0355-0520/10-F/JJD/Minerva 1-1/CN3 1<sup>h</sup>00<sup>m</sup>E. <sup>0405-0505</sup> ✓  
horizontal sweeps included area betw.  $\alpha$  +  $\beta$  Gem.  
Also CN5 TH <sup>at 0515</sup>. Bright sky for 2nd half of CN3.  
Fr. Dawn sighted 0425-0430.

2 bolides, late perseids, between 0400 and 0410.  
M33, naked eye. Sky superb, dark and crisp.  
Comparable to JMB.

Wednesday, 18/19.

5950EP ~1150-1200~13-F/JJD, Lakeside/-/-/general.

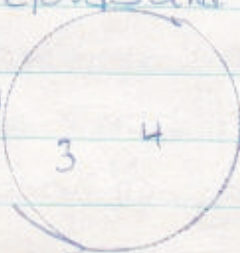
5951M2 0325-0430/10-3-2-F/JJD/Minerva 1-1/CN3: ✓  
0<sup>h</sup>45<sup>m</sup>E.

Thursday, 19/20.

5952ME: 2300-2315/3-2-F/JJD/-/-/some dark sky,  
Vega, but mostly clouds and lightning flashes.

Friday, 20/21.

5953S. 1530-1630/7-F/JJD/



Mira 2/-/SS 2.

Jim <sup>work</sup> 789-7761

Richard 630-2095



\*5954A2. 2115-0440/10-F/3J/Minerva, Syncom IV,  
a coultter 4", etc. / CN3 1<sup>h</sup>00<sup>m</sup> W. ✓ 9:30-1:10.  
1<sup>h</sup>30<sup>m</sup> E. ✓ 3-4:30.

Enrico Hill Gerald Schieven

Comet Austin.

Jeff Zeit Olliver Long

Tail 5°

Peter Jedicke Stuart Kent

Head about

Heather Stading

Same as

Rajiv Bhushan

before -

Cathy Majteny

June Jedicke

Don Kapitanuk

Robert Jedicke

David Brown

~~David Brown~~

Tahrah Stading

Charles Fassel (15)

Sat, 21/22.

5955E. 2120-2230/10-F/next door to 3J/Minerva +  
others / Bill Strople, Peter, others / Comet Austin  
CN3 0<sup>h</sup>30<sup>m</sup> NW ✓

5956M2 0000-0030~17-F/3A 3JF/campfire thing.

5957M3 0215-0315/10-F/3JD/Minerva / Bill, Enrico,

David / CN3 0<sup>h</sup>30<sup>m</sup> E. ✓ Enrico found M74,

his 2nd to last.

Bill Strople

Sunday, 22/23 - cloudy. Monday, 23/24 - cloudy.

Tuesday, 24/25 - cloudy

Wednesday, 25/26.

5958 M ~ 0000 - ~ 0015 / 7-F / Richard's house / - Mira 2 / - /  
M31, D6C1.5959 AM. ~~Thursday, 26/27.~~  
~~Wednesday, 25/26~~ / 8-7-F / Richard's house /  
~ 0030 - ~ 0045 / Mira 2, Mira 4 / - / M31, etc.

Thursday, Friday 27/28.

5960 E. ~~Saturday, 28/29~~ and balcony  
2140 - 2240 / 8-Fm / JJ - ~~middle~~ <sup>west</sup> Field / Minerva / Leo /  
Comet Austin. Still nice. M11.5961 E. ~~Saturday, 29/30.~~  
~~Sunday, 29/30.~~ / 2200 - 2300 / 7-Fm / JJ - West Field /  
Minerva / Peter and Tom G / - Comet Austin. (Fading)Sunday, 29/30. cloudy. ~~4~~ (Fri, 27/28)5962 M. should be before 5960 E. / ~~0300 - 0400~~ /  
10+ - F / Leo's Oso Observatory / C14, C8 / M57. M2.

"Blinking Nebula" in Cyg.

5963 M. Monday, 30/31. 0030 - 0130 / 2-F / JJ - Pond / - / - / moon.  
Canoe ride. Fast-moving clouds.

Tuesday, 31/32.

5964 M. 0000 - 0030 / 7-fm / JJ - Pond and B / Minerva on  
balcony / - / Moon, general.5965 M2 0315 - 0520 / ~~8-10-3-F~~ / JJ D / Minerva / - /  
CN3 1<sup>h</sup> 05<sup>m</sup> E and SE ✓ Problems with  
cirrus and lake fog. Good comet hunt nonetheless.

Wednesday, Sept. 1. cloudy.

Thursday, Sept 2 cloudy.

5976 here. Friday, 3/4. - cloudy. Saturday 4/5. 2

\*5966 E. 2015 - 2130 / 9-7-fm / JJ, <sup>by</sup> lake / Minerva -  
Leo, but from Kingston / Very bright Fireball  
fr CrB to Oph. - 1 or more. Leo called  
at once to say that he'd seen it. Compared

notes. He saw it ~ overhead, my view had it further west. ~ 2045-~ 2050. ~~West~~ Lasted ~ 15 sec. Some exploding activity. Aur - coronal arc

CN3 0<sup>h</sup>15<sup>m</sup> W ✓

5967M2 0030-0100 / ~~8~~ 8-fm / 33D / - / - / Moon.

Saturday, 4/5. Sunday, 5/6.

5968E. @ 2130-2200 int / 2-f / 33-D / - / - / weather check. mostly cloudy

5969M2 0030-0100 / 1-f / 33D / - / - / clouds. Sitting on dock. Monday, 6/7. clouds + rain.

5970M Tues Clearing late. 0145-0215 / (int) / 7-fm / RASC / - / David / CNI, Aur I. negative. Tuesday, 7/8.

5971M ~ 0100-0115 ~ / 6<sup>-3</sup>-f / Roof of 3WS / Mira 4 / - / moon, CNI 40 4. Wednesday, 8/9.

5972M. ~ 1200-1215 ~ / 6-3-f / Roof of 3WS / Mira 4 / - / moon.

Thursday, 9/10.

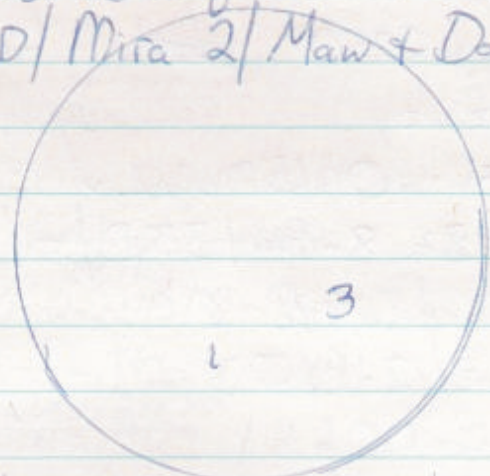
5973M. 0000-0100 / 7-3<sup>-3</sup>-f / RASC to 3WS walk / - / - / moon, general.

Friday, 10/11.

\*5974M. 0100-0230 / 7-fm / Oso Observatory / - / Minerva, C8 / Leo / Helix + Saturn nebs. other.

\*5975E. Saturday, 11/12. ~~000~~ 2015-2345 / 9 1/2 - F / Oso Observatory / - / Minerva, C14, C8 / Leo / CN3 1<sup>h</sup>30<sup>m</sup> W, NW ✓ Helix neb. "Blinking Nebula" actually blinks!!!

597652 Should be before \*5965, <sup>Sat. Sept 4/</sup> 1520-1620/8-3-F/  
 JKJD/Mira 2/Maw + Dad/ SS 2 at 1535.



5977MR ~~Sat, 11/12 comtd.~~ Sunday, 12/13, very hazy  
 Monday, 13/14. hazy.  
 Tuesday, 14/15. very hazy.  
 Wednesday, 15/16/17. Rain.  
 Thursday, 16/17/18. 1  
 0000-0010/8. 2-F/3WS/Mira-/Vega.

5978E Friday, 17/18/19/2100-2200/3-7-F/3WS/  
 Minerva/see below/ M-13, M57, Vega,  $\beta$  Cyg.  
 Jeffrey, Marcy, Wendy, Robby, Alison, Billy

~~5979~~  
 5979E. Saturday, 18/19 ~~cloudy~~ <sup>0100-0115/8-F/Lily's</sup> house-/Lily/general.  
 Sunday, 19/20 - cloudy  
 Monday, 20/21 - Rain?  
 Tuesday 21/22 - Cloudy.  
 Wednesday 23/24 22/23

5980#EM. 2300-0200/7-3-F/WS-218-Summit-88-  
 WS/-/general.  
 Thursday 24/25 23/24.  
 cloudy. + rain

09 82

10 82

Friday, 25/26-24/25

cloudy.

Saturday 25/26

→ 2200-2230 / Fog / JJD / Minerva / see below /  
M31, Db. cluster, moon.

5981E. Saturday, ~~26/27~~. 25/26.

In Sall

Merge Harris - a foggy night, but still interesting

~~Peggy Jensen~~  
~~Pat Jensen~~  
Constantine Papacosmes

Sunday, <sup>26/</sup>27 cloudy

Monday 27/28. cloudy.

Tuesday 28/29. —

Wednesday, 29/30.

59825. 1645-1730 / 8-F / Green Acres / - / - / CNV - SVen.

5983E2. Thursday, 2030-2100 / Summit / Lily / - / general.

Thursday, 30/31.

5984EE. 2100-2130 / 7-F / Lord Reading Yacht Club / Mira 4 / - David  
Brown. / Moon.

5985E2 2145-2155 / 7-F / Lakeshore, Pt. Claire / Mira 4 / David / Moon.

Friday, Oct 1/2.

OCTOBER.

5986EP. ~2350-0000~ / 7-F / Rolf's house, Ottawa / David / Mira 4 /  
general.

Oct. Saturday 2/3.

5987E. 2000-2100/9-Fm/JS-Pond/Mira 4/David/general viewing.

Sunday, 3/4. cloudy.

Monday, 4/5.

\* 5988S. (actually ~~started~~ started before sunrise) 0630-0820 intermittent/3 WS & plus drive to airport. / Maw + Daddy/ We noticed the moon high in the sky - in the west, at breakfast. Daddy remarked on it again on the way to the airport.

5989E2. ~ 2100-~2200 int/ MST/ Plane. Moon rising & up in east.

Tuesday, 5/6.

5990E. 2100-2140/7-F/FP/ Galadriell/ Michael/ M31.

Wednesday, 6/7.

5991A E. ~ 2100-2115 ~ / 8-F/ JMB<sup>4</sup> / general. Pegasus/ Danny/ Db. Cl.

5992M. ~ 0000-0015/ 8-F/ JMB4/ general.

\* 5993S ~ Thursday, 7/8 1000-1700/ 10-F/ JMB4/ Virgil/ Spitzer construction.  
\* 5994M2 0310-0400/ 8-F/ JMB 2, 3, 4/ Saturn, Pegasus, Penumbra, Virgo, Minnowbrook, Jupiter. / JMB fully operational.

Friday, 8/9.

5995 ~~5994~~ E. 2100-2130/ 7-F/ FP/ Galadriell/ Rich, Michael/ M57.

5996EM2 21 2345-0015/ 8 7-6-F/ U of A/ - / general.

Saturday, 9/10.

5997S. 1430-1445/ 10-F/ JMB/ Echo I/ - / Test Sun a

5998S2. 1515-1550/ 10-F/ JMB/ Echo/ - / SS2. → 1

5999S3. 1630-1740/ 10-F/ JMB + South walk/ Mira 4, 1<sup>st</sup> part. →

Echo's 22<sup>nd</sup> Birthday Celebration

\*6000EM4 Saturday, October 9.

1930-0230

10-F JMB Echo Jupiter

James V. Scotti (Star Programmer - Spacewatch Project)

Karrinaanna too!!



Gerald E. Leung    Atty at Law / D's legal advisor  
 Audrey G. Leung O.T.    D's social advisor

Daniel Craig Stowell    astronomy advisor  
 and V.I.P., observatory builder 12/17/80!

Bonnie Lynn Stowell - aliens  
 Bonnickins!

R. L. Stowell (Roofmaster)

Happy Birthday Echo! Rich & Denis Worthy  
 Michael V. Magee

Some of us saw: M-31, M-32, M-10, M-13, M-30, Vesta, Veil  
 Nebula and the Pleiades. (Not to mention M-27, M-57, M-33, etc.)

Judy Stowell -

S8 01  
Sunday, Oct 10. - none recorded.

Monday, Oct 11.

6001S. 1700-1800-1 10-F/Sierrita Mtns/ Hasselblad/-/  
Sunset over KPNO.

Tuesday, Oct. 12.

6002 E. 1940-2000/7-F/FP/Galadriel/ Debby./ general.

Doug GEGEN (West Kentucky  
(6004M3) Amateur Astronomers)  
Murray, KY.

Wonderful Evening of  
viewing using "Jupiter"

6003E. 2100-2200/7-F/FP/Galadriel/Dennis, Debby/  
Blinking Nebula in Cygnus.

6004M3 0000-0100/10-F/JMB/Jupiter/Doug Gegen,  
see above/M1, 15, 31, 42, etc.

Wednesday, Oct. 13.

6005M. (should be after 6006): Monday ~~0000~~

0100/10-F/JM4/Jupiter/H/ CN3 0<sup>h</sup> 20<sup>m</sup> E ✓

6006M. 0100-0115/10-F/JMB/Penumbral/-/ & Cass.

Thursday, Oct. 14.

~~2E~~

6007M. 0040-0115/10-F/JM2/Pegasus/-/Db C//

S Per. \* obs but no estimate.

check comp mags.

Friday, Oct. 15.

6008E. 1820-1930/\* 10-3-F/JMF+South walk/

-/-/ general viewing.

Saturday, Oct 16.

6009S. 1430-1700 13-F/JMB/Inauguration of  
KPNO. !

6010 E before 6006, Wed. night/2100-2200 int/8-F/FP/Galadriel/  
Debby/ general viewing.



## ANNIVERSARY For PEGASUS

10 82

Saturday, Oct 16.

- \* 6011 AN2. 1800-0530 / 110-F/JMF, JMI, 2, 3, 4, JMB/Pegasus  
 Jupiter, Saturn, Minnowbrook, Virgo, Penumbra, 6"m, 8"rl, 8"celestron,  
 others
- Paul W. Raitley 5 Pueblo St, Gilbert, AZ 85234
- Bonnie Stowell - Sorry couldn't make it.
- James E. McShee
- Gary Rosenbaum
- Jim Anderson 2041 E. Rancho Dr. PHX, AZ
- Brent Allen 5243 N 14th Pl Phx 85017
- Maynard Clark & wife Jeanne Sedona
- James V. Smith TUCSON
- David H. Friedman 4744 N 39th Dr Phx 85019
- JERRY MAURER 3321 E. Yucca St Phx 85024
- JOHN McGRATH 11239 N 75th SCOTTSDALE AZ 85260
- Tom McGrath " " " " " "
- Elaine McGrath " " " " " "
- RON SCHMIDLI 6220 S. 8TH PL, PHOENIX 85040
- Bud Ridley 1792 LEISURE WORLD MESA 85206
- WALT REYNOLDS 2318 FOX MESA 85003
- Eun Reynolds " " " "
- Mary Alice Reynolds " " " "
- Guamne Ashby 1640 W. Calavan Blvd 85023
- Billy Ashby " " " " "
- Peter L. Manly 1533 W. 7th St. TEMPE, AZ 85281
- James E. Fickens
- Ron Parnell " 1625 EAST HARVARD, PHOENIX, AZ 85006
- Gene Finner 4180 W. CAMINO ACEROLA, PHOENIX, AZ 85021
- Kirk & Dolores Hill 1437 N. SWAN TUCSON 85712
- Donna Perometta 8212 E. Oak Scottsdale AZ

John Gerhardt 8214 E DAK St Salt Lake  
Marge & Lou Ashby 1640 W. Calaver Ph x 85023  
Renell Chaves  
Eric Nielsen  
LINDA Ashby  
Ken Smith

Grant, Bonnie, Gail & Joyce Klassen 615 S. Hardy Tempe

Karen & Jim Oliver

Michael V. Magee

Lebbie Jensen Wow!

Wes Ferguson

Lore Stebbins

Paul Lorenz

~~Michael A. [unclear]~~

Scott Henning

Star R. Cole

Mike & Kathy Terry

Erica Ferguson

John Caffey 10/16 Thanksgiving

Frank Alvares 200 W. Hermosa Tempe L217

Teresa Lappin

Brenda Lappin

Gail Bennett

May Ann Pitulas Phf.

Ann [unclear] Phf  
Jim [unclear]

Kerry Hund

Virgil B. Smith

Judy Stowell - Happy 18<sup>th</sup> anniversary!!! <sup>63 ✓</sup>  
 Many objects.  $\overset{0300-0445}{\text{CN3}} \rightarrow 1^h 10^m \text{E}$ , with Jupiter ✓  
 $\overset{0445-0515}{\text{then } 0^h 30^m \text{E}}$ , with Pegasus. ✓  
 For total:  $1^h 40^m$ .

18<sup>th</sup> anniversary party for Pegasus. 63 guests.  
 Sunday, Oct 17.

6012S. 1330-1415/10-F/JMB/<sup>etc</sup>Pegasus/-/cleanup.  
 6013S2 1500-1515/10-F/JM2/Pegasus/-/SS2.



Monday, Oct 18.

6014M. ~0000-~0030/8-f?/JMB/-/-/general.

Tuesday, Oct. 19.

6015<sup>AM</sup>. 0440-05-0400-0530/10-F/JM4/~~Pegasus~~<sup>Jupiter</sup>/-/CN3/1<sup>h</sup>10<sup>m</sup>E ✓

Wednesday, Oct. 20.

6016E. 0100-0230/3?-F/JMB/-/-/general

Thursday, Oct. 21.

6017M. 0430-0530/10-f/JMB4/Jupiter/-/CN3 0<sup>h</sup>40<sup>m</sup>. ✓

Friday, Oct 22.

6018M 0200-2300-~~2330~~/10<sup>2</sup>-F/JMB/-/-/general.

Saturday, Oct 23.

6019E 0200-0230/10-~~10~~<sup>7</sup>-fm/-/-/general.

6020M 0100-0235/8<sup>3</sup>-F/ Davison Ranch/ Mira 4/general.  
to

Sunday, Oct 24.

6021M2 0300-0530/8-10-F/SM4/ Jupiter/ -/ CN3 2<sup>h</sup>05<sup>m</sup>  
+NGC5907. ✓

Monday, Oct 25 -

6022E. 1900-2200/intl/ 3-F/SM4/ Jupiter/Virgil/  
M31, ~~35~~ 45, Sculptor NGC 253.

6023EM2 002315-0030/9<sup>3</sup>-F/SMF+ South walk/ -/ -/  
general ✓

6024M3 0240-0315/3-F/SM4/ Jupiter/ -/ CN3 0<sup>h</sup>15<sup>m</sup>.  
Tuesday, Oct 26 - mainly cloudy.

6025E. Wednesday, 327/ 0400-0545/10-F/SM4/ 4/  
1200-0130/8-F/SMB+ South walk/ -/ -/  
General.

6026M2 0400-0545/10-F/SM4/ Peg Jupiter/ -/  
CN3 1<sup>h</sup>30<sup>m</sup>E. ✓ Small problem with  
light from neighbor.

Thursday, 28.

6027E. 2100-2130/7-Fm/FP/ Galadriel/ Jim  
Cannon + girls/ M2. Difficult to find.

6028M2 0430-0545/10-F/SM4/ Jupiter/ -/ CN3  
New baffle works! 0<sup>h</sup>45<sup>m</sup>E ✓

Friday, 29.

6029E. 2100-2300/10<sup>7</sup>-Fm/SMB/ SM2/ Pegasus/ -/  
painting of obs. M45, Obcl. M31.

Saturday, 30.

6030M. 0130-0150/10-F/SM2/ Pegasus/ -/ general.

Sunday, 31.

6031M. ~~0200-0240~~ 0300-0340/10<sup>7</sup>-F/ SM4/  
Virgo/ -/ general.

6032E. Monday, November 1. 1830-1915/8-Fm/SM4/

November.

Jupiter / July / CN3 0<sup>h</sup> 20<sup>m</sup> W ✓ (moon.)

Tuesday, Nov. 2.

60355

Wed, Nov. 3. 1230-1315 / 8-F / JMF / Antares / 1 / Sun. SS2.

Robert Miller, 5788 VIA AMABLE 11/3/82 Wednesday borrowed

6 inch scope for star party at Sunrise school 11/3/82

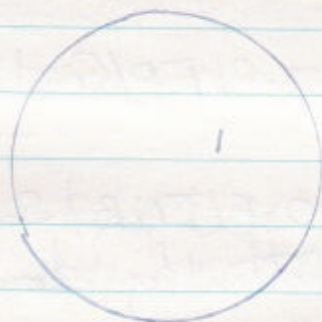
6033E →

1830-1900 / 8-F / JM4 / Jupiter / - / CN3 = 0<sup>h</sup> 15<sup>m</sup> W. to /  
moonrise.

6034M2.

0230-0300 / 7-Fm, windy / JM4 / Jupiter / - / general.

60355 again.



Wed cont'd.

6036E2

2000-2115 / 6-fm / South Tucson thing with  
Jaquelyn's adult class + other children / Echo, <sup>small</sup> FF,  
moon, M31, Vega, Fomalhaut

Thursday, 4.

6037E.

2200-2230 int / 7-f / FP / telescopes on mall / TAAAF  
moon.

6038M2.

~0000-0015 / 8-F / JMF / Antares / - / M3 M42, moon.

6039M3

~0200-0230 ~ / 8-f / JM2 / Pegasus / - / M42, moon also!

6040M4

~0300-0315 ~ / 8-f / JMF / Antares / - / moon, general

\* 6041E

Friday, 5 / 1820-2230 / 10-3-f / JM4 / Jupiter / - /  
CN3 1<sup>h</sup> 40<sup>m</sup> W ✓ Fine session.

6042E.

Saturday, 6. 1900-1915 1 & 2-f / JMB / Saturn / - /  
Altair, β Cyg.

6043E

2330-0000 / 3-2-f / JM4 / Jupiter / Mike and

Rebecca Bakich, Michael Magee / M42, moon.

6044E. Sunday, 7/1820-1845 / 2-F / Gerry's house / Equus  
Billy / Altair.

Monday, 8 / cloudy, rain

Tuesday, 9.

6045E 1820-1840 / Irvington road / 8-F / Mercury / - /  
CN3 0h05m W. ✓

6046E2 1930-1945 / 7-F / FP / Galadriel / ~~8-F~~ general / Debbie,  
Michael.

6047E3 2120-2135 / 7-F / FP / Galadriel / Debbie, Michael /  
M31. not bad.

6048M4 0300-0315 / 10-F / JMB / Saturn / - / M42. Sky  
had been intermittently cloudy all evening.  
Wednesday, 10/11

6049E 1820-1920 / 3-0-F / JM4 / Jupiter / - / CN3 0h25m W.  
Thursday, 11/12.

6050M. 0300-0510 / 10+F / JM4 / Jupiter / - /  
CN3 1h00m E ✓

\*6051E Friday, 12/13. 1830-2200 / 10-F / JM4 /  
Jupiter / - / CN3 2h00m W. P/d 'Arrest. <sup>1982e</sup>

\*6052AE2 2230-2315 / 10-F - windy / JM4 / ✓  
Jupiter / - / most likely spotted P / Churyumov-  
Gerasimenko, 1982 F. but more than 2° from  
pred. pos.

wrong spec!

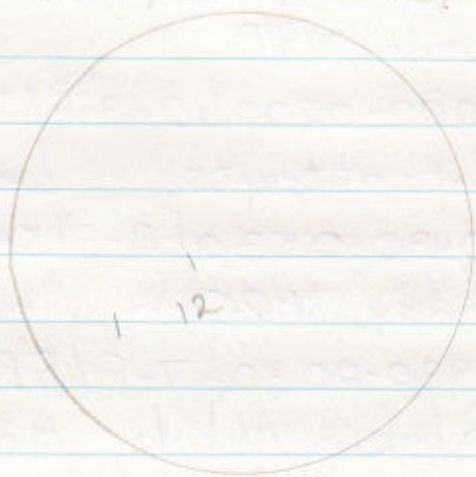
period  
-617  
yro.

cf. \*2998EM.  
Log 8.

for more about d'Arrest

6053M. Saturday, 13/14/0145-0200/1-2-F/JMB/-F/brief  
view of M42 region through clouds.

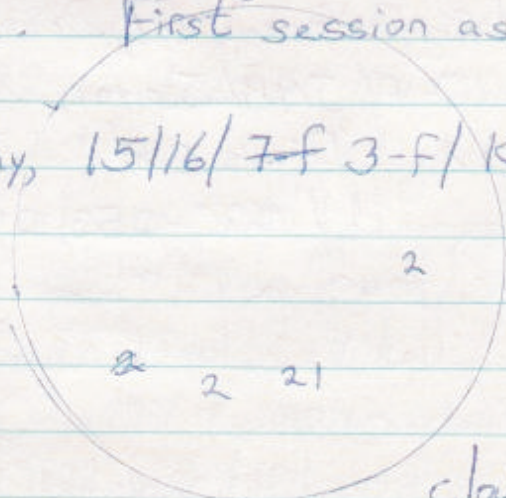
6054S. Sunday, 14/15/1000-1030/3-F/JMB/Penumbra/H  
SS-2.



\*6055S2. 1330-1640/10-F/#2-36", KPNO/Stuart J.  
Weidenschilling/Altair. Practice for Asteroid  
run.

\*6056AN. 1745-0615 / -F/# Kitt Peak National  
Observatory/#2-36"/Stuart J. Weidenschilling/  
Asteroids: About 20 different sets of star  
and asteroid data collected. I operated the comp-  
uter. Did alright until last hour when I began to  
fumble. First session as a "professional" observer.

6057S. Monday, 15/16/7-f 3-F/KPNO/Visitor Center scope/  
SS2. Stu said I  
did well last night.



cloudy at night.

Tuesday, 16/17. clouds. Wednesday, 17/18.

6058M. ~0100-~0200/3-F/JM4/Jupiter/Alan Dyer/  
M42, Horsehead Nebula, M31, D6 Cl, etc.

Thursday, 18/19.

6059M. 0000-0200/10-<sup>humid</sup>3-F/JMB/Pegasus, Jupiter, 2 C-8s/  
Photo attempts. Leonids. General viewing, (A), D. Beale.

6060M2 0430-0530/3-F/JM4/Jupiter/-/ CN3 0h15m E. ✓  
Friday, 19/20.

6061E 1930-2030/7-F/FP/Gabriell (A), Dave, others, Michael]  
- Blinking Nebula, M31, M57,  $\beta$  Cyg,  $\Sigma$  2816, etc.

6062M2. 0100-0200, int/-3-F/JMF, JMB/-Alan/ weather  
checks.

6063M. should follow 6059M. Thurs/0300-0315/JM4/-/-/  
closing of JM4.

6064M. Fri again/ ~~03~~0415-0630/10-F/JMB/Jupiter, C-8/Alan/  
- Astrophoto M42. CN3 ~~0~~ 1h00m. ✓  
Saturday, 20/21.

6065E2. ~~20~~ 1930-2030/7-f/JM4/Jupiter, Alan, Dave/-Comet  
d'Arrest -

~~6065~~ <sup>6085</sup> before 6065. <sup>15</sup> 3:30-4:00/3-f/M+ Lemman/  
Sun, (SS2) moon / sightseeing (A), Dave.



\* 6066EM3 2115-0400/3-10-f/JMB/Jupiter,  
Pegasus, 2 A's C-8, Dave's C-8/  
Comet Churyumov-Gerasimenko / NGC-253, 247, 55,  
Fornax cluster, NGC 1049, a 12.9 mag. globular in the filter.  
Fornax system. Horsehead nice with neb. filter, Veil,  
CN3 1h30m E! (also 6067M4) Alan Dyer

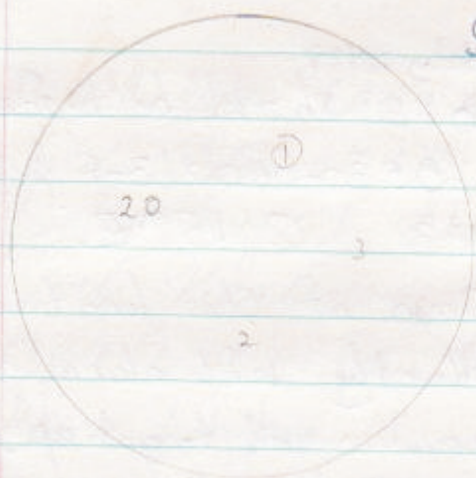
6067M4. 0445-0515/2-f/JMB/Jupiter (A) finished CN3



Sunday, 21/22.

11 82

60685.



1215-1230/10-F/3MB/Penumbra/  
David Beale/SS2. D.O. R.O.

6069S2 1500-1700/10-F/3MB/Penumbra, Pegasus/ A1, Linda + Tom/  
Derald / Sun, moon.

Linda Daxisma  
Tom Daxisma

6070E3. 1945-2100~~int~~/3-F/Duane's Echo Valley Obs./16"others/moon

6071E4 ~2300-~2330/7-F/Echo Valley obs/16"/Duane, Alan/M42

6072M5. 0100-0215/10+-F/Jarnac Obs-MB/Alan/8"Celestron,  
Pegasus/-Photos.

6073M6 0430-0600/10-3-F/3MB/Jupiter/<sup>Europa</sup>-Alan/photos.  
CN3 1<sup>h</sup>00<sup>m</sup>E. ✓ A1 stayed out betwn. 0215-430

6074M. <sup>Tuesday 23/24</sup> Monday, 22/23. ~~Kennedy session~~ 0100-0200/3-F/  
Lightning/JM2/Pegasus/-/ ~~at~~ M42, M31 date? wrong date here?

6075M should be before 6074M ~0000-~0015/2-F/JMF/-/-/general.

6076M. <sup>Mon. 29/30 definite</sup> 0130-0315/3-F/Jupiter, Pegasus/John/Erffle -  
Konig 32mm test. M42, moon. on 42, Erffle had  
John Bantess very slightly narrower, but consider-  
ably sharper, field.

6077M Tues <sup>30/31??</sup> ~~23/24~~ 0200-0215/ ~~Tasco~~ 2-F/JMF/Abacus II,  
the Tasco rr / Cold f - 46° / - / moon.

6078M Friday 26/27. 0220-0235/-F/3MB/-/-/general.

6079EM. Sat, 27/28 ~~H~~ 2300-0030/-F/JMF, B/-/-Penum bra/moon.

6075-6084. content accurate  
but some dates may  
be off.

6080 - see before 6066.

? 28/29? Definitely 28/29.

6081M. Sunday, ~~28/29~~ 0530-0600 should be before  
6076. Date screwup. 0530-0600/3-F but  
clear in E./Jupiter/-/CN3 0<sup>h</sup>15<sup>m</sup>E.

Got up in time for last 15 min of this lunation,  
by accident. I had accidentally left alarm on.  
Cbats had made me decide earlier not to get up.

6082M. ~~Thursday, Dec.~~ Wed Dec 1/2 / 0100-0200/  
8 3-F/JMB, F+ South walk/Mira 4/-/moon. SNOW.

6083M. 2/3 / 0200-0220/Pegasus/8-F/JM2/Imoon, M42.

6084E. 3/4 / 1930-2030/8-10-F/JM4/Jupiter/-/-CN3:0<sup>h</sup>30<sup>m</sup>W

Satu Saturday, 4/5

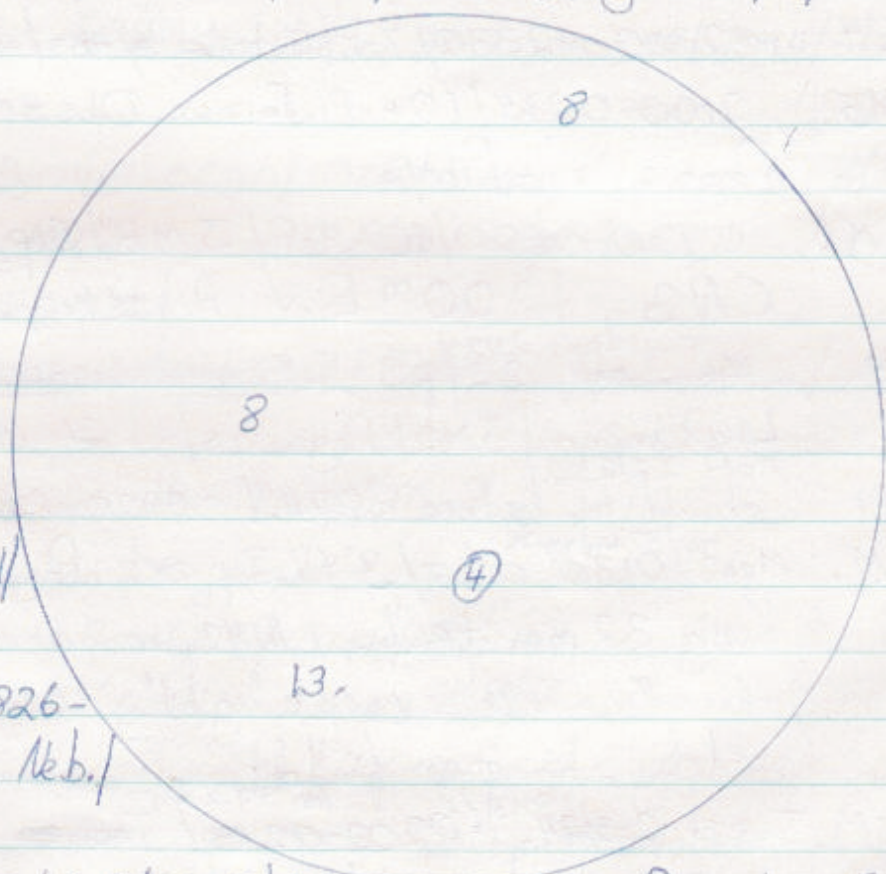
6085S<sup>→</sup> ~1300-1330~18-F<sup>-3-</sup>/JM2/Pegasus/-/

SS 2.

6086E2. 1900-1930/  
7-F/Oradriell/  
FP/Public +  
OCA/NGC 6826-  
Blinking Pl. Neb./

6087E3 2040-2340/3-F/JMB/Pegasus, Mnbk, Penumbra, Saturn,  
Jupiter/-Orange County Astron. meeting/→

6088M4. 0155-0215/7-fm/JMB/all above scopes/-/closing up.



- Derald Nye (again)
- Judy Stowell
- Dorothy L. Steller Cypress College
- Harl Keranen Tustin CA 92681 ZIP 92680
- PLEASE WRITE #
- Dharm Sibirsky
- Dave Debow, Treas. - OCA
- JIM HANNUM
- Charlie Oostdyk
- Mikea. Behrens
- Charles R. Edmond
- Jim Banyard
- Donald Lynn
- Richard C. Nordrum, Jr
- William F. Mauch #
- Sally Denbow
- David Gray - Golden West College
- Robt Hill
- Squid Hobbs
- John R. Sanford Orange Coast College - WAA -
- Wilt Triplett
- James L. Brauer Cypress College
- Walter Clark OCA
- Dward Steller Rockwell Int'l
- Kaul M. Marting O.C.A.
- Sharon Sanford Orange
- Michael Magee TAAA
- (Duane Nichols)

\*6089E. Sun 5/6/1830-2330/~~2-F~~ 10-F/SM4/Jupiter|-/  
CN3 3h 10m W. ✓ N&C 7217.

6090EM Mon 6/7/2100-0000/10-F/SM4/Jupiter|-/  
CN3 2h 20m W. ✓

6091M ⊕ Tues 7/8 0100-0130/2-F/3MB/Saturn|-/  
covering in prep for rain.

⊕ Wed 8/9 cloudy. Thu 9/10 cloudy

6092M.E. Fri 10/11. 1830-1850/2-F/Image Point store/Mercury/  
Pierre/ test for mirror ~~featur~~ reworking.

6093M2 ~ 0030-0100 ~ 13-F/SMF/ -|-/general.

\*6094EM Sat, 11/12. 1920-0300 110-F/3MB|-Phoebe-  
first light - Phoebe/Jupiter, Pegasus

ERICA FERGUSON\* DEC-11

Alex Ferguson

Debra Jensen

Michael V. Magee (17 meters, WOW!!)

CN3 0h 30m W. ✓

Sunday, 12/13.

6095

Monday, 13/14.

6096E. 1835-1930/3-2-F/SM4/Jupiter|-/ CN3 0h 05m.

Tuesday, 14/15.

6097EM. 0200-0300 ~ 110-F/SM4/Jupiter|-/ = 1, kind warmer  
test|-/

CN3: 0h 25m E. light bubble  
needed

Wednesday, 15/16.

192 82

29 Amphitrite

55 Pandora.

\* 6098AN 683 Lanzia

88 Thisbe.

130 Elektra

22 Kalliope.

201

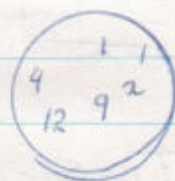
' 1815-0700/10+F/Kitt Peak/ #2.-36/ Don Davis/  
Asteroid project. 2 near occns.

T0217-Tape #

Thursday, 16/17.

6099 S.

1315-1330/10-F/KPNO/ Vis. Sun. Tel/ - /SS2.



\*\*6100 1600-0730/ 10+F/ KPNO/ 2-36"/ Don Davis/ ~1500

SANS Data pts. collected. Very fine night. Rising

Sungreen flash at end.

Friday, 17/18.

6101 M. ~0100-0130-18 10-F/ SMB/ general. ?

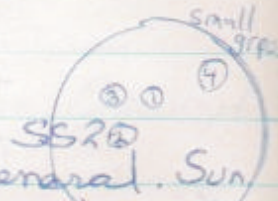
CN3 25m?? doubtful. prob 6097M.

6102S. 18/19/noon-3pm/10-f/JMB/-Judy/inst. of new baffle.  
 \*6103AN2 Saturday, 18/19/1 day past CN3 17<sup>th</sup> anniversary/  
 1740-0715 / 10-F/ JM4/ Jupiter, Phoebe  
 new light bottle works!

~~CA~~ Alfred W. Kruijschoop, University of P. N. G.  
 Box 320, University Post Office, Papua New Guinea

CN3: 7h30m ✓ 4h W, 3½h E.

6104. S. Sunday, 19/20



~~E~~ 210-1225/10-f/JM4/ Penumbra + general. Sun

6105 E2 1900-2000/8-f/Gerry's house/-/Billy/walk, steady.

6106 M23 10010-0025/10-f/JM4/general

~~6106M~~ Monday Tuesday, 20/21/ 0610-0630/10-f/JM4/Jupiter/H

6119M. CN3 0h10m E ✓

Tuesday 21/22 - clouds. -

Wednesday 22/23.

6107E 2230-2300/3-f/JMB/Debbie, Mike, Jim/-/general.

6108 M2 0500-0545/2-f/JM4/Jupiter/-/CN3 0h05m W/E.

Thursday, 23/24.

6109M. 0500-0640/10-f-cold/JM4/Jupiter/-/CN3 1h05m E.  
 Fri 24/25.

6110 E. 2100-2200/8-fm/JM4/Jupiter/-/

successful collimation of telescope. 6 stars easy now in M42 trapezium.

6111 M2. 0500-0650/10-f/JM4/Jupiter/-/CN3 1h00m E ✓

+ good views of Jupiter + Saturn. Temp - 2°C.

6112 MP Saturday 25/26. 0055-0100/3-f, cold, windy/  
 JM4/ Penumbra - moon.

6113M. Sunday, 26/27. 0500-0700/10-f/JM4/Jupiter/-/

CNIII: 1400m<sup>✓</sup> E. Azimuth moving  
Monday, 27/28.

6114S. 1530-1700/8-F/3MB/-/Rolf/general.  
Tuesday, 28/29.

6115 E2. 1800-1815/3-F/3MF/Rigel/Rolf+Eric.  
Wednesday, 29/30

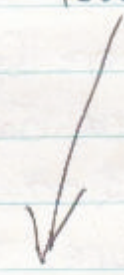
6116EP 1800-1810/3-2-F/FP/obs/-/fruitless look for  
Mercury

\*6117EM 2015-0600 int 15-1-F/3MB/? Jupiter, Pegasus/  
Propus/Mithrandir 1

### Lunar Eclipse

MST

Start Penumbra	01:51.9	Clouds
Start Umbra	02:50.4	1st 1/2 visible
Start Total:	03:58.2	clouds
Mid-eclipse:	04:28.7	
End Total	04:59.3	
End Umbra	06:07.0	
End Penumbra	07:05.5	



Michael V. Magee

Debbie J. Jensen I

also: Mike Butkich, Rolf, Eric, Judy.

Dec 30/31. cloudy. Thurs.  
31/32, Fri.

6118 E. 1800-1930/10-F/3MF,B/Rigel, Jupiter/Rolf, Eric,

6119-a/44  
6106 • Michael/Mercury, Venus/ CN3 0415m W. ✓

1983. Jan. 1

6120S. 1100-1200/10-F/SMB/ - Penumbra/ - Rolf, Eric/  
- View of KAO.

6121E2 1800 to 2035/10-F/SM4, 2, F/Propus, Virgo, Pegasus,  
Jupiter/ Rolf, Eric/ - photos. CN3 1h30m W. ✓

January 2 Sun.

6122EP 2300-2310~/7-F/San Diego/ Canopus/ -/moon.

Jan 3 Mon.

6123EP ~2200-~2210~/7-F/Cliff's home in Riverside/ -/ -/general.

6124EP2 ~2220-~2230/8-F/Edna Holmes' home/Canopus/  
Cliff, Mikel - M42.

Tues, Jan 4.

6125E 2300-2320/8-F/Cliff's home/Canopus/moon, m42.  
Scope fogged due to hot water nearby.

Wed, Jan 5.

6126E. ~2200-2220/7-F/Cliff's home/ Jackie/ -/general.  
Thurs, Jan 6.

6127EMP 0100-~0110/10-F/SMF, B/ -/general.  
Fri, Jan 7

6128E. 1800-1815/7-F/Tucson Airport/ Roy, Julie/ -/Venus

6129E2 2000-2130/8-F/SM4/ Jupiter/ -/ CN3 1h00m. ✓

Sab, Jan 8.

6130M2.EM. 1800-0200/8-F/10-F/SM4/ <sup>Pegasus</sup> Jupiter/ Rolf, Eric,  
Daniel, Bonnie/ <sup>Propus</sup> CN3 1h00m. ✓

M42, Horsehead: Rolf was impressed w/ neb. filter.



6131EM. Sun, 9 Jan / 1030pm - ~~3:30am~~ <sup>4:00</sup> / 10-F / SMB / Jupiter, Propus, Pegasus / Rolf, Eric - VV172, + a string of 17? mag. galaxies.  
Mon, 10 Jan / 1430 - 1600 / 10-F / SMB / JMB / George

6132S Collenberg / general.

George M. Collenberg enjoyed my story - telescopes were friendly.

6133M2 - should appear before 6132. Mon morning, right after 6131. 0445-0535 / 10-F / JMB / ~~Peg~~ Jupiter / - / CN3 0h25m E. ✓ until moonrise interferes.

6134M2 Mon, 10 Jan again. / 0520-0700 / 10-F / JMB / Jupiter / - / CN3 0h40m E. Strange object in Hercules.

6135E. Tues, 11 Jan / 1800-2330 / 10-F but very windy / JMB / Jupiter, Propus, Pegasus / Rolf, Eric / photos. CN3 1h15m W.

6136M2 0410-0625 / 10-F / SMB / Jupiter, Pegasus, Propus, Phoebe, Abatte II / Omega Cen. CN3 1h20m E.

6137MP3 0700-0710 / 10-F / SMB / Saturn / - / close up, + recording of NGC <sup>Wed, 12 Jan</sup> Object 6364 seen during comet hunt.

6138EP 2350-0000 / 10-F / JMF / - / Rolf, Eric / general

6139M2 ~~0500~~ 0450-0625 / ~~8~~ 10-3-F / JMB / Jupiter / - / CN3 0h50m E.

6140E Thursday, 13 Jan. 1800-1815 / 10-F / JMF / - / Rolf / Venus. Earlier, Rolf saw green flash.

6141E2 2250-2320 / 10-F / JMF, JMB / Propus, Jupiter, Pegasus, Virgo / - / Rolf, Eric / general. Rolf + Eric having AN.

6142M3 0320-0710 / 10-3-F / JMF, JMB / Propus, Virgo, Jupiter, Pegasus / Eric, Rolf / CN3 1h30m E. 6120 or 6129 seen. both 14.5

6143S Fri, 14 Jan / 1300-1430 / 10-3-F / JMB / general obs. Michel Kossow (Winnipeg)

6144EM Saturday, 15 Jan. 12300-0300 / 10-F / JMB / Propus, Virgo, Jupiter, Pegasus / Michael, Debbie, Mike Bakich,

Rolf, Eric) - M42, Horsehead, M81, 82, NGC 4565, M45, 66,  
etc.

Sunday, 16/17-<sup>night</sup> clouds. but

6145S. 12 00-1300 ~ / 3-F / 3MB) - / Rolf / Pegasus open.

6146E. Monday, 17/18 / ~ 2330 - ~ 2345 / 3-F / 3. Motel 6, E / Pasa /  
Canopus / - / general.

6147S <sup>Tues</sup> 18/19 / 1630-1650 / 3-F / E / Pasa / - / - / Rainbow photograph.

6148S2 18/19 / 1700-1720 / 3-F / Las Cruces / - / - / Sunset photos

6149 MB <sup>wed, 19/20</sup> 0130-0145 / 3-2-f / Las Cruces, Motel 6 / Canopus / - / general.

6150M. Thursday, 20/21 . / 0450-0700 / 10-F / JM4 / Jupiter / - /  
CN3 1<sup>h</sup>00<sup>m</sup>E.

6151M Fri, 21/22 0450-0700 / 10-F / JM4 / Jupiter / - / CN3  
1<sup>h</sup>00<sup>m</sup>E.

Sat 22/23 clouds

6152S. Sun 23/24 / 1300-1315 / 3-F / JM2 / Pegasus / - / filter  
test on Sun.

6153M2 0300-0445 / 3-F / JM4 / Jupiter, Pegasus / - /  
CN3 (Jupiter) 1<sup>h</sup>00<sup>m</sup>E.

Monday, 24/25. clouds. ~~HE~~

\* 6154E. Tuesday, 25/26 / 7-f / FP / Judy, Dennis, Mike, Debbie,  
others / Echo at first / Launch of IR telescope  
from Vandenberg. Beautiful sight. Saw flame from  
rocket, and "comet" as it curved S-ward.

6155M2 0100-0115 / 7-fm / JM3 / 7-Fm / Maia / - / general.

6156SE. Wednesday, 26/27 1700-1715 / Image Pt / Mercury / Pete,  
Gary / moon. Scope performs excellently.

6157E2 26/27 1840-1905 / JMFB / 3-2-f / Mercury / Mrs Percy /  
moon. Excellent image, even w. 4mm + barlow.

6158E3 2000-2300 / 3-F / JMB / Mercury, Pegasus, Saturn, /  
others, see below / moon.

First Light Rededication for  
Mercury - 1

Edward C. Norton

William B. Norton

6159M4 0130-0200 / 2-F / JMB / close up of JM2, Saturn, Mercury /  
- / M42 w / Mercury.

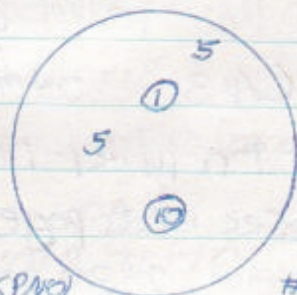
Thurs, 27/28. cloudy

6160S. Fri 28/29 / 1500-1600 / 3-F / KPNO / Solar Vis. Scope / - / SS2.

6161AN2 1810-0530 / 3-7-Fm / KPNO /

#2-36 / - Rick Greenberg / Mainbelt

Asteroid Geodesy. Eunomia +  
others /



6162E See Thu. 27/28 / 1800-1900 / 1-F / KPNO

#2-36 / Don Hays,

Rick Greenberg / Set up. before 6160S.

Saturday, 29/30 - cloudy

6163EM Sunday 30/31 / 1830-0400 / int. / 2-F / KPNO / - / - / look at  
#1-36".

6164AN Monday, 31/32. 1830-0730 / 1-2-7-F / KPNO / Dr. Greenberg, 236 /  
Photometric Geodesy of Eunomia, etc.

6165S. Tuesday Feb 1/2 / 1400-1420 / 3-f / KPNO / Vis. Tel. / - / Sun.

\*6166E2 1/2 / 1900-2100 / 10-F / JMB / Mercury, Jupiter / Roy,  
Judy / CN3 1<sup>h</sup>00<sup>m</sup> W.

• Roy Stowell First Light Rededication for  
Judy Stowell Mercury - 2

Wed Feb 2    Thu Feb 3    Fri Feb 4    Sat Feb 5  
Sun Feb 6    clouds.

\* 6167M.    Mon Feb 7/8/0100-0230/10-3-F/SM4/Jupiter/-/  
Messier Discovery Session. Observed four  
"missing Messiers" 46, 48, 91 and 102.

6168 EP    Tues Feb 8/9/2200~2210~/7-F/Sheraton Cong vis-  
whatever it is /-/-/nice stars.

6169 M2    0230-0410/10-3-F/SM4/Jupiter/-/CN3/1400<sup>m</sup>E.  
Jupiter.

~~6170M.~~  
6170M.    Wed 9/10/0500-0620/10-F/SM4/Jupiter/-/  
6184<sup>7</sup>    CN3 1h05<sup>m</sup>NE. N to E

6170M.    Thu 10/11/0445-0620/10-F/SM4/Jupiter/-/  
CN3 1h05<sup>m</sup>E. E to N.

6171A.E    Fri 11/12/1900-192100/10-F/SM4/Jupiter/  
see next page. Test of Jupiter.

6172 E2    2130-2330/10-3-F/Dawson Ranch /<sup>others</sup> /-/-Mercury/  
M42, Saturn, etc.

6173M    Sat 12/13/0430-0620/10-F/SM4/Jupiter/-/CN3  
1h00<sup>m</sup>E.

6174M    Sun 13/14/0130-0145/3-F/SM2/Pegasus/-/M65-66.

6175E    Mon 14/15/ @ 200-1930-2100/10-f/SM2/Pegasus/-/  
CN3 1h00<sup>m</sup>. NW.

6176M.    0510-0610/Tues 15/16/10-F/SM4/Jupiter/-/  
CN3 0h35<sup>m</sup>E. Asthma.

6177E.    wed 16/17/1940-2020/10-3-F/JFP/Gabriel/  
Michael / M42. + sword of Ori.

6178 AN    Thurs 17/18/ @ 1830-0545/3-F/KPNO/ 2-36"  
Phoebe/Clark Chapman/ Asteroid geodesy + look at 2+2.

DON + JUDY ARCHER  
Friday - FEB. 11, 1983

6171E

Deneb of Ullswater - CT 100 mirror refigurer!!  
hope you'll find your 1<sup>st</sup> comet with it!

Gary Rosenbaum 2-11-83

- 6179AN. Fri 18/19 | 1845-0515 | 10-7-F | KPNO | <sup>Phoebe,</sup> 2-36" | - Visitors  
Night, Clark | - Asteroid geodesy. dust shutdown.
- 6180S. Sat, 19/20 | 1400-1500 | 10-F | KPNO | Schmidt | Rik | Sun.
- \*6181AN2 18<sup>35</sup>30-0635 | 10-F | KPNO | #2-36" | <sup>Phoebe,</sup> Visitors night,  
Clark | M79, 42, 32 | Asteroid geodesy.
- 6182S. Sun 20/21 | 10-F | 1400-1530 | KPNO | Visitor Scope, Razdow  
image | - | Sun in vis, Hα.
- \*6183AN2. 1835-0600 | 110-3-F | KPNO | 2-36" | Clark Successful  
timing of grazing occ'n. Just decided to try for it ~5min  
before, when cirrus interrupted our asteroid work. Clark
- 6184M - see before 6170M.] + I timed six events to the  
6183 again → nearest second. Rik also observed this event; for  
all 3 of us, our ~~nearest~~ first ~~ev~~ such event. Later,  
I had the scope to myself to find + observe ast. 5  
(Astrea) + collect data on it and some std.  
stars. Cirrus probably prevented it from being of  
very much use. Sky cleared later so we could  
get more useful data. 6178AN - used scope alone  
near dawn for 29+7. 6179AN. In charge for vis. night, then  
some data before shut down. Rest of night spent in dome, periodic

weather checks. \*6181AN2, Found obj. for visitors using coordinates. Then got data rest of night. So each of these four consecutive AN sessions has been very different.

from a-b to c  
↓

a 6185S 2/22<sup>Mon</sup> 1400-1600 / 3-F / KPNO / Vis. Tel, Razdow / - /

b\* 6186AN2 2/23<sup>Tues</sup> 1820 to 0700 / 3-10-F / KPNO

this belongs after 6185

2-36, Phoebe / Watched occ'n timing first. Then curiostratus, curvus, and after 1:30, astraea, bettina, enomia, + other asteroids. Green Flash.

c 6187S. M Tues, 2/22 / 3-F / KPNO / Vis. Tel / 1500-1600 / - / - /

Sun

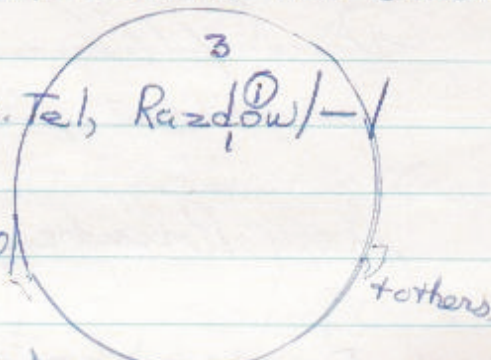
b\* 6188AN2 after 6185. Mon 2/22 / 1830-0700 / 8-10-3 / -KPNO / Phoebe, 2-36 / Clark / Asteroids: Full cure on Geographos. Saw it actually moving through aperture of photometer. Data collection all night.

List of Asteroids observed during Sessions

6178AN 6179AN \*6181AN2 \*\*6183AN2 \*6188AN2 and \*6186SAN2.

55?	250 Betina	15 Enomia
349	201	216
584 Semiramis	22?	16

87 Sylvia	354 Eleonora
9 Metis	19
139 Juewa	1620 Geographos
5 Astraea	



6189M. Tues 22/23/ ~~0300-0400~~<sup>0315</sup> / 3-F/JMB/ -/-/general.

~~6190~~ Wed 23 Thu 24 - cl.

6190S. Fri 25/26/ 1600-1800/3-F/JMB/ -/ Larry Dunn + Peggy/ -/general.

Larry Dunn & Peggy Lutzend 2/25/83  
Eugene Astronomical Society, Eugene, Oregon (President)

~~6191M~~ Sat 26/27 - cl Sun 27/28 - cl

6191AE. Mon 28/29/ 8-F/JMB/ Saturn/ 1800-1930 int/general.

6192 M2 0200-0300 int/8-F/JMB/Saturn/ -/ & Moon, Saturn.

Tues

MARCH

1/2

Wed 2/3

Thu 3/4

Fri 4/5

cloud problems.

6193E. Sat 5/6 (2000-2100/3-F/JMB) Jupiter/ J<sup>im</sup> EN/ -/ M42.  
Impressive.

6194E2 2145-2215/ 3-F/Davison Ranch/ 2/ EN Mercury/ Jim/  
M42. HORSEHEAD, sort of.

6195M. 0000-0130/ 10-F/JMB/ Jupiter, Mercury/ -/ & M42. & Cen/  
Jim, Mike, Debbie. See next page for  
M51, & Virgo Group, M82. Signatures.

6196M. A Sun, 6/7/ ~0300-~0315/3-F/JM2/ Pegasus/ Saturn, Jupiter.

6197M. Mon, 7/8/ ~0300-~0315/ 7-F/JM2/ Pegasus/  
Jupiter, Saturn.

6198E Tues 8/9/ 1950-2120/ 7-F/ ~~JM~~ Camp Cooper/ Echo/  
Debbie + Kellond kids.

6199M, 0000-0030/ 10-F/JMB, JMF/ Pegasus, Echo/  
Saturn, J.

note on 6198E: kids not very co-operative.  
But session still went well.

0300 - 0845 hrs March 6, 1983 UT.

for 6195M. 3 separate sessions → 0300 - 0430

see overleaf. M-42, Horsehead, Barnards Loop - Jupiter

0500 - 0530 → Davidson ranch

M-42, "Horsehead" - Mercury

0715 - 0845 → everything else (except Pluto) - Jupiter

OBSERVERS:

James V. Booth - Ace programmer of all 'round  
great guy (not to mention fellow  
Astronomy type).

Michael Magee

Almah J. Jensen.

wed  
E 9/10  
6200\$M ~~0400-0455~~ | 1830-1930 | 7-F | Gerry's house | - | G, R, Debbie,  
Billy | Venus.

6201M2 0400-0455 | 10-F | JM4 | Jupiter | - | until premoonrise brightening  
in East; CN3 0<sup>h</sup>35<sup>m</sup> E.

Thurs 10/11. - clouds, Fri, 11/12.

6202E ~2100 - ~2115 | 3-F | JM B | - | Jacquelyn | power failure

6203M2 ~0000 - ~0100 | 3-F | JM2 | Pegasus | - | Saturn. p. "

6204M. Sun-Sat. 12/13, 0430-0600 | 10-F | JM4 | Jupiter | - |  
CN3 0<sup>h</sup>45<sup>m</sup> E

6205E Sun 13/14 | 1930-2100 | 10-9<sup>h</sup>1/2 | -F | JM4 | Jupiter | - |  
CN3 1<sup>h</sup>00<sup>m</sup> W.

\* 6206\$AN 1830-0600 | 3-F — | JM4 | Jupiter |

M33 1925

M77 - 1934

M31 1930

M74 1935

M32 "

M76 1946

M110 "

M34 1948 loose



- M45 0750 nebulosity  
~~M44~~ M42, 0753  
M78 ~~0753~~<sup>19</sup>  
M93 ~~0800~~ 1958  
M46 ~~08 2001~~ tighter than 47, pln 2438 inside  
M50 2008 loose OC  
M1 2020 Crablike!
- M79 0752 very nice  
M43 0753  
M41 ~~0754~~<sup>17</sup> nice, loose  
M47 ~~0804~~ 2000 tighter than 46  
M48 2016 loose OC  
M35 2021 open. Tighter than 2128 nearby  
2111
- M37 Towards Gem. 2110  
M38 - middle, near M07 - 2111  
M44 2118  
M95 2124  
M105 2124 seems to be brightest but smallest of 95, 96, 105.  
also saw 2 neighbors. 95 covers most area 96 most distinct.
- M67 2119 very rich OC  
M96 2124
- M65 2130 66 brighter. Also 3628 +  
M66 2130 the other faint galaxy  
M81 2135 M82 2135 and NGC 3077  
M40 and 13th mag 4290, 20' to the west of the star.  
all at 2140.
- M108 and M97, through haze, at 2144  
M109, "fatter", at 2146, Bright centre. Also 3953  
+ 4102. 3953 is "fatter" + faint.
- M106, 2155, through haze. 4217 very faint  
M94, bright + compact. at 2158.  
M63, at 2200 exactly. h2.  
M51, ~~to~~ 2202.  
M101, very large, at 2203.

1806, cont.

M102 at 2218. brighter than 5907.  
M3, 2220. Got it!  
M64, Black-eye at 2222. hz. Roundish  
00:37 M13. also 6207  
00:40 M92. Could tell it anywhere  
00:45 M53 bright + compact. Nearby 5053 <sup>much</sup> ~~coarser~~ fainter

02:40 - M4 - medium rich OC

03:23 - M64 - Black eye w/ averted vision. Bright center

03:26 - M85 - much brighter than 2 nearby companions.

03:29 - large open M100.

03:31 - M98, elongated.

03:35 - M99, very nice.

03:47 M88

03:48 M91 - fainter + rounder than 88

03:55 M84 M86. Cluster of "Sagitta" galaxies!

03:58 M87. Elliptical, Trillions of stars, could not see the black hole.

04:02 M90. Beautiful Spiral.

04:03 M89 Elliptical, small.

04:20 M58 with "colliding" galaxies 4567, 4568 too.

04:23 M59 and 60 with fainter ones nearby.

04:40 M60 04:45 M49 04:47 M61 Round,  
spiral evident. M104 04:49, with Mercury

04:40v M68 with Mercury M83 w/ Mercury

04:51 M5 - easily split right through

04:55 M12 M10 12 courses, easier to resolve than 10

04:56 M107  $\odot$  - small M9 04:58.

\*6206<sup>S</sup>AN. conc'd.

- 0459 M80, bright, smaller than 9.
- 0459 1/2 M4 again. large, coarse.
- 0500 M19
- 0502 M62
- 0504 M6
- 0504 M7
- 0505 M57
- 0506 M56
- 0507 M27
- 0509 M71
- 0454  
~~05~~ M14 Opt. fine, harder to resolve
- 0510 M11
- 0516 M26
- 0517 M16
- 0518 M17
- 0520 M18
- 0523 M24
- 0523 M25
- 0524 M23

clouds again.

91 objects seen.  
(some twice!)

No Messiers Seen: 109 (only No. 30 missed)

No other NGCs observed: 34  
(numbered + identified)

## Messier Marathon

[2nd try]

DAVID H. LEVY

Tues. 15/16

- 6207AN 1900 to 0640 / 10-F/JM4/Jupiter, Mercury, Pegasus  
+SS:be  
- 1 Messier Session. [Order & courtesy of Don Machholz, John Kerns, DSM, March 1982 issue, p. 8]
- M33 1931 very difficult in twilight.
- M77 1933 compact and concentrated.
- M74 1943 very diffuse, just discernible in twilight, zod. lit, + Venus nearby  
- found it 3 or 4 times to check identity!
- M31 no dust lanes visible - low in N, twilight. 1949
- M32 1949 - dwarf elliptical all right
- M110 1949 - quite a galaxy in its own right
- M76 1953 - it really does look like a miniature M27,  
the parts more distinct than in 27, though.
- M34 1956 - extremely loose OC
- M45 - couldn't find it. !(!)?! [Merope nebula easily visible both in finder and in main scope]
- M79 2034 - with Pegasus Resolvable.
- M42 2036. ~~SF~~ Breathtaking.
- M43 2036.
- M78 2037 visible, with companion, + brightening at nearby Bernard's loop.
- M41 2038. nice fine OC.
- M93 2044. beautiful fine OC. 2482 nearby
- M47 2045. coarser than 46.
- M46 2046. unique, PN made (2438)
- M50 2050. Intermed. rich OC.
- M48 2052. Coarser than 50

- M1 2055 Crab-like. What else can I write? Ethereal.
- M35 2056 saw also faint cluster nearby.
- M38 2057 blue, faint stars. My preference.
- M36 2058 saw also 1931 nearby. (PN)
- M37 2059. Saw also OC 1907 "
- M44 2102 Most (many) stars arranged in Tracing line.
- M67 2105 Here, some stars arranged as a question mark (?)
- M95 2110 } of 3, covers <sup>the</sup> OC area
- M96 2110 } Most distinct of 3
- M105 2110 } smallest but brightest. Also saw 2 night  
bore. 3384, 3389.
- M65 2113 brighter than 66
- M66 2114 "longer" than 65. Also saw 3628 & faint 3593
- M81 2116 Very exquisite. The M82 dust
- M82 2116 line does appear to have been "turned" toward 81!
- M40 2121 <sup>also saw</sup> The double! Also saw 4290 at 13th mag, 20' to W.  
3077 + 2976c loc. 76 larger.
- M108 2126 Long spiral
- M97 2126 Beautiful, soft round nebula.
- M109 2130 Almost like a very distant M31. Similar aspect.
- M106 2134 hint of dust lane. Tiny 4217 close by.
- M94. 2135. Very bright.
- M63 2138. "Sort of" comet-like. Seen also in Europa
- M51 2140. In reverence, I look at this magnificent sight.
- M101 2142. Spreads out like to show its grace & freedom.
- M102 2147. A small, (5200) 5907 long, 5279 seen top. Faint, small.
- M3 2151. This project is like a reunion of old friends!!!

62079N-cont.

- M64 2156. Dust "lane" clear at high power (16.3mm)  
 even though seeing is poor.
- M53 2159 Balthasar, <sup>nearby 5053 fainter - much much</sup>  
 fainter, but larger.
- M85 2205 With 4293 and 4394.
- M100 2208, Using Newton's DSO to aid in ID. Recall 1979 SN?  
 M98 2222 ✓ long period.
4565. Pity Messier missed this immense object. Seen at 2335.
- M99 2212 ✓ admirable nicely at 160x.
- M88 2246 beautiful spiral { 4595, 4571, 4540 also ID. <sup>continued</sup>  
 what was
- M91 2247 fainter + rounder than 88 = 4548. <sup>But spec</sup>  
 ship SB not seen
- M84 } at 2229. Saw 8 galaxies in the same lp (53x) field.  
 M86 } <sup>84 86 4938 4435</sup>
- Gegenschein very noticeable. 2250.
- M87 2235 ✓ Impressive, esp at 160x. No black hole or jet!!  
 (Seeing better)
- M89 2231 ✓ small E near 90
- M90 2229 ✓ delicate <sup>can see</sup> SB shape with a little imagination, high power.
- M58 2310. Compact. Spectacular "colliding" galaxy. <sup>4567, 8 nearby</sup>
- M59 2320 4638 nearby. Also 460!
- M60 2320 4647 almost touches it.
- M49 2330. Bright!
- M61 2332 Faint but large. Is this SB? (How  
 wide open arms.)  
 (No, just SE.)
- M104 2340. Magnificent! Dust lane <sup>lean out h.p.</sup> very nice.
- M68 2343. Perfectly resolvable at h.p.
- M83 2349 Bright center (or nearby superimposed star)  
 rest is ethereal. Beautiful object.
- M5 2356 w/ Mercury. Resolved even with Mercury.
- M12 022732 <sup>average</sup> fine, <sup>easy</sup> to resolve globular. <sup>between</sup>  
 10 & 14 in richness
- M10 0230 coarser than 14; easy to resolve
- M107 0235 cute. Smaller (1/2 size?) of 10, 12 or 14.

0055 Omega Cen with Mercury. Easily resolved.

#03 83

- M9 0240 easily resolvable. Seen also in Europa.
- M80 0243. Small, bright. Didn't see this one in ".
- M4 0244. In a lb, M4 is stunning, absolutely stunning.
- M19 0247. a tight GC in a very rich field
- M62 0250 Tight. N. side of "bulb" E. slightly larger than S.
- M6 0326 } large open clusters. } viewed through  
M7 0325 } → stunning NE object } Mercury
- M13 it 0250<sup>45</sup>. Magnificent at 160x. Nearby 6207 gal  
M92 at 0050 Courses than M13. Also very beautiful. seen easily too
- M57 0308 A "confirmed glimpse" of the central star. 12mm  
+6mm.
- M56 0314 faint, small to fairly coarse.
- M27 0317. Central star very prominent at 160x
- M71 0319. Unusual shape for a GC
- M14 0227 a very fine, hard to resolve GC
- M11 0320 Exquisite.
- M26 0334 small OC.
- M16 0335 Incredible OC with nebulosity
- M17 0338 Running out of words to describe these magnificent obj  
M18 0346 neb filter provides one of the finest sights - earth or  
M24 } sky - that I have ever seen.  
} loose, small OC  
} huge area with 6603 inside, seen at 0350.
- M25 0356 blue stars in this OC.
- M23 0404 nice OC. PN 6445 + GC 6446 seen nearby
- M21 0410 weak OC near Trifid.
- M20 0411 Best with neb. filter for Trifid
- M8 0412 Nebular filter the way to go with this stunning sight.

6207AN-conc 'do

M28 0417 Bright, small, extremely rich field.  
M22 0415 My God! Fantastic!  
M29 0422 Weak OC,  
M39 0424 Bright stars.  
M52 0426 Rich in Mercury. (the 4")

M103 0432 fuzzy - 'arrowhead' from Mallas. Not bad in 4".  
M69 0438 }  
M70 0439 } three globulars, seen clearly + ID in Mercury.  
M54 0440 }  
M55 0446 large, but close to horizon. with 4".  
M75 0458 faint in 4".

M15 0459. bright.  
M2 0515 Pegasus - 8 side.  
M72 0520 - faint  
M73 0522 - a few stars  
M30 — just didn't rise in time

109 obs Messier Objects

+

34 - others

6208M. 16/17 Wed / 0410-0455 / 3-F / SM4 / Jupiter / - /  
CN3 0425mE.

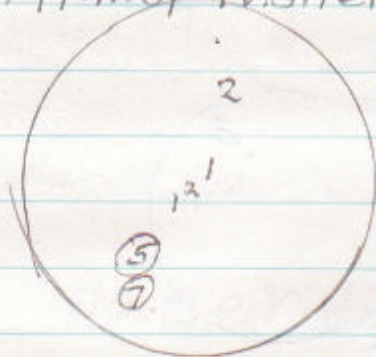
6209M. 0210-0225 17/18 Thu / 2-1-F / SM2 / Pegasus / - /  
Arcturus, Saturn. Fri - cloudy Sat 19/20

6210E. 2230-0000 / 10-F / SM4 / Jupiter / SM2 / Pegasus / → /



I LIKE THE CATS - Many low Collenberg  
telescopes were very friendly - but cold - large lobby  
M57, 81, 82, 13, 3, 44, etc MRC 4565.  
morning session not held / clouds.

- 6211E. Sun. 20/21/ 1900-1930/1-2-F/5MB/-/Don Archer.
- 6212M2 0430-0530/10-9-F/5M4/Jupiter/-/CN3 0h50m E.
- 6213EM Mon 21/22/1900-0400 or thereabouts/1-0-F/KPNO/-/1.
- 6214S. Tues 22/23/1500-1530/3-F/KPNO/-/Vis. Tel SS2



- 6215AN2. 1815-0510/3-F/KPNO/#2-36, Alouette-2/  
Stuart Weidenschilling/ Asteroids. Curves on  
Elektra and Somiramis.
- \*6216 EM Wed 23/24/ 1815-~~2000~~<sup>7-FM</sup>2000/10 then sudden fog/ Alouette 2,  
2-36/Stuart/ - Asteroids.
- 6217E# Thu <sup>24</sup>25 /1815-2000/0-F/KPNO/84, 36"/ Ron  
general tech.
- \*6218EM Fri. 25/26/ <sup>18</sup>2000-0400/1-F/KPNO/36"- Alouette/-/again,  
little.
- 6219M2 0430-0445/1-2-F/36, Alouette 1- / moon.
- \* 6220 S. <sup>Sat</sup> 1330-1645/26/27/3-F/KPNO/ McMath Telescope, Razday,  
Vis. Tel/ Keith Pierce, Don Davis, students/ McMath Obs.  
Room, SS2 w/ vis tel.  
Short exp. by Dr. Pierce.

03 83

\*6221AN 2. 1810-0700 / 7-Fm - 10 / KPNO / 2-36,

Alouette-2 / Stuart / Asteroid Gruesey. Curves for

15 Eunomia

201 Penelope

250 Bettina

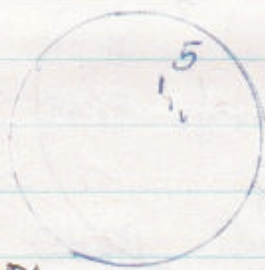
Almost for 354 Eleonora

107 Camilla

plus some on 22 Kalliope

349 Dembowska

45 Eugenia



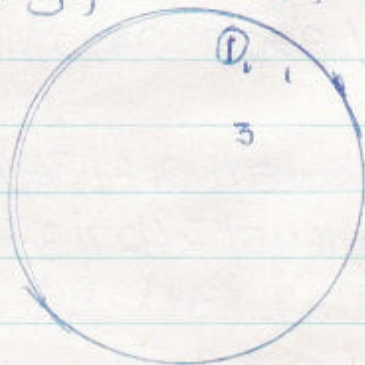
6222S <sup>Sun.</sup> 27 March. 1400-1600 / 10 - some cirrus. -f / Kitt Squeak  
Fractional Observatory / 2-36, Vis. Tel / others /  
SS2.

\*6223AN 1900-0500 / 7-F-3-F / KPNO / 2-36, Alouette-2 /

Stu / Dembowska Kleopatra, (216) Psyche (16)

354 Eleonora 107 Camilla.

6224 S. <sup>Mon 28/29</sup> ~~18 1500~~ 1400-1545 / 3-F / Kitt Peak National  
Observatory / Razd. image, Vis Tel, 36 / -1SS2.



6225.E2 2000-2015-13-F/Gerry's house/Equus/Debby + Billy/Moon.

\*6226.E3 2300-0700/7-8-F/KPNO/Alouette 2, 2-36/Stu/Asteroid Geodesy. Some on 45 Eugenia, 22 Kalliope, 87 Sylvia. & Cor Bor!

\*6227.M. Tues 29/30/0400-0430/7-F/JMB/Echo I w/orig. mt. <sup>VEGA Jupiter, Sat, Moon, Bicyg.</sup>

6228.M. Wed 30/31/0330-0345/8-F/JMB/Echo I <sup>Jupiter, Sat, Moon</sup>

6229.M. Thu. ~ 0300-0315/7-F/JMB/Echo I <sup>Jupiter, Saturn, Moon</sup>

\*6230.E. Friday: Dennis's class: April 1, 1983 APRIL

Judith Hullant  
Lee Hammond

Jatti Kueman

Janet Baker, Tina Baker, Peter Baker

Alex Hammond

Quincy & Anita

Louise Hurst

John + Meryl Reilly

Gilda Mammara

Luana Mammara

Don + Judy Archer.

1740-2230/10-F/JMB/Jupiter, Pegasus, Penumbra, Saturn, Maia - M51, Saturn, <sup>Venus</sup>, many other obj.

M74 too low for Don's project.

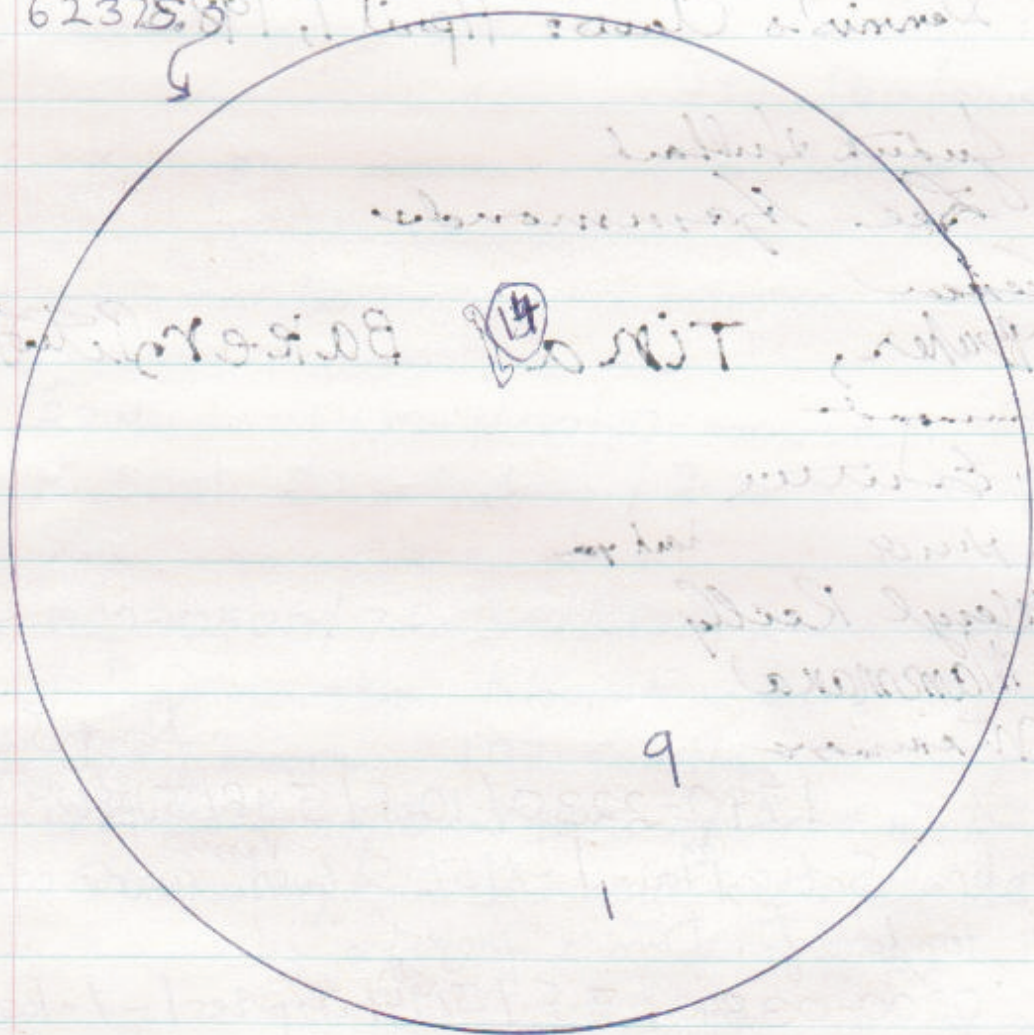
\*6231.M2. 0200-03:40/8-F/JM4/Jupiter/-/closing of obs. (except JM2) and Pluto sighting. Good sky survey map; +ve id.

\*+6232.M. 0530-0615/10-F/JM / Pegasus/-/ Ingress, occn. of Ganymede, Callisto, Jupiter, Europa and Io. It looked more 3-dimensional than usual during ingress.

6233E. Saturday, April 2/3/1930-2330/10-F/JM4,  
S. walk / Jupiter, Phoebe / - / CN3 / 1<sup>h</sup>00<sup>m</sup> W.  
Also saw Pluto again.

6234E. Sunday, 3/4/ 1930-2045/10-3-F/JM4/  
Jupiter / - / CN3 / 1<sup>h</sup>00<sup>m</sup>.

6237E. 3/4/1930



Mon, Apr 4/5

④ 6235 E

2230-0000 / 10-F / JMB / Jupiter, Pegasus /  
Pluto, M51, M82, M104, M13, NGC 6207, Saturn.

Very impressive sights! A most enjoyable  
observing session, in most enjoyable company!  
Bob Victor

I sure enjoyed looking at the many  
objects with your 16-inch telescope,  
especially, Pluto, the Hercules  
globular cluster and the Whirlpool  
Nebula, M51. I could see the spiral  
structure in M51. Also, M13 was  
superb! But poor little Pluto was  
so faint, unimportant-looking  
objects. Thank you for this  
observing session.  
Clyde W. Tombaugh

Tuesday, 5/6

\* 6236 E

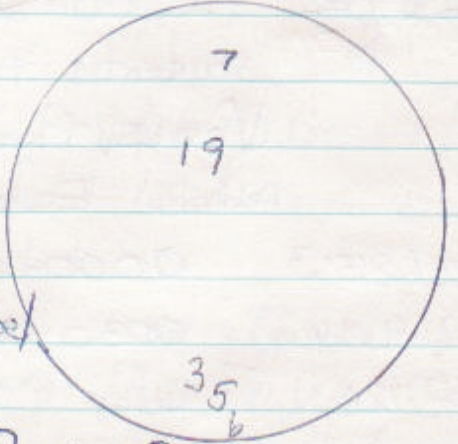
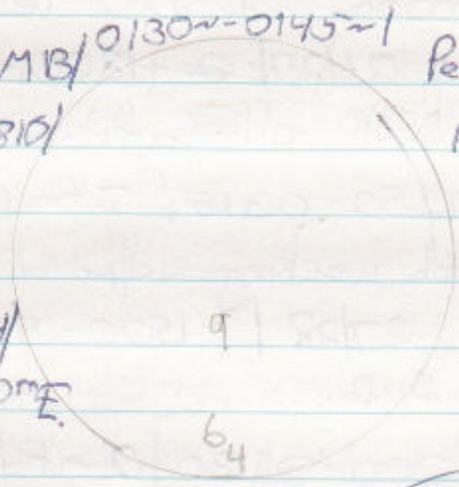
2300-0000 110-F windy / SM4 / Jupiter /  
Pluto motion confirmed.

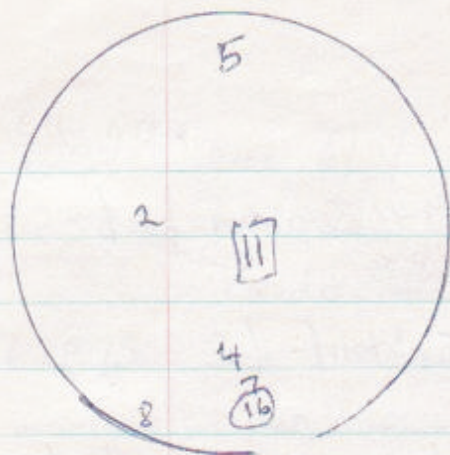
Again, we have seen Pluto, which  
has moved a little farther west  
(apparent retrograde) from its position  
the night before.

Clyde W. Tombaugh  
5 April 1983

- 6237E Wed, 6/7/ 2045-2145/1-F/Echo V. Obs/Duane, Clyde + Patricia  
 6238M Thursday-7/8 2000-2300 int | 3-F/3MB/Albireo, Echo 3  
 Friday 8/9 April. ?Date? with new wedge.  
 Works well on Jupiter + Saturn.
- 6239S. See under 6234 for map. ~1500-~1515/3-F/3MB/  
 Penumbra/-/GS2.
- 6240E2 1900-2100? 13-F/3MB/ painted Echo, used <sup>the telescope</sup> Jupiter  
 to find <sup>planet</sup> Pluto and <sup>earlier</sup> for CN3 - at least 0h 20m W,  
 (listened to Radio Reader on KUAT, then called Richard)  
 Sat, 9 Apr |
- 6241E 2000-2030/7-F/3MB/Jupiter/Elizabeth Maggior/-(M5, 42-  
 On this night Elizabeth Maggior observed her first  
 galaxy -- M51 -- and, also for the first time,  
 the Orion nebula. Outstanding. (the telescope  
 operator was fun, too!)
- 6242M2 0130-0320/18-F/Davison Rangh/12", other telescopes/  
 Pierre Schuicar, Gary Rosenbaum, others | Pluto,  
 S 2816, others.
- 6243M3 04<sup>345</sup>~~400~~-0450/10-F/3M4/Jupiter/-(CN3 0h 40m E.  
 Sun. 10 Apr
- 6244E 1940-2215/10-F/3M4/Jupiter/-(CN3 2h 00m W. Pluto
- 6245E Monday, 11 Apr/2000-2100/3-F/3MB/Echo, ~~Pogose~~  
 Jupiter/-(Echo's "rededication", <sup>new secondary</sup> CN3 0h 10m W.  
 Also: Pluto, and
- 6246M2 0330-0530/3-F/3M4/Jupiter/-(CN3 1h 15m.  
 Tues, 12 Apr - cloudy.
- \* 6247M Wed 13 Apr 0330-0500/10+-F/3MF, 3M4/  
 Telescope/Mintaka on Jupiter, Saturn. Optics + mount  
 excellent.  
 and telescope Jupiter on CN3 0h 30m E.

- 6248M. Thurs 14/15/0200-0330/10+F/5M4/Jupiter|-|  
CN3 1h00mE.
- 6249M. Fri 15/16/0250-0450/10+F/5M4/Jupiter|-|  
CN3 1h40mE.
- 6250E. Sat 16/17/97-F/Pima County fair/1830-2000|-|  
Audrey, Billy/Venus, moon.
- 6251EP2 2230-2240/9-F/5MF|-| Billy/Spica, Saturn.
- 6252M3 0255-0500/10-F/5M4/Jupiter|-|CN3 1h35mE.
- 6253M Sun, 17/18/0230-0500/10-F/5M4/Jupiter|-| CN3 1h50mE.
- 6254M Mon, 18/19/10-F/5M4/0215-0450/Jupiter/CN3, 02h00mE.
- 6255M. Tues 19/20/10-F/5M4/0200-0500/Jupiter, Iol|-|  
CN3 2h15mE.
- 6256M Wed 20/21/3-F/5MB/0200-0230/Saturn|-| Saturn,  
Jupiter.
- 6257M Thurs 21/22/3-F/5MB/0130-0145-1 Penumbra/22, 3, C.
- \*6258S. Fri, 22/23/4/1750-1810/10-F/5M2/ Filter (~3")  
Pegasus|-| SS2: sharp image.  
on Pegasus. Very
- 6259M2. 0400-0455/10-F/5M4/ Jupiter|-| CN3 0h30mE.
- 6260S Sat. 23/24/1535-1600/10-F/5M2/Pegasus|-| SS2.  
Fine seeing again.
- \*6261E2. 1930-2330/7-Fml/FP, Mall/ Astronomy Day|-| Mintaka,  
Dunn's telescope, Pierre's telescope,  
etc/many people/Jupiter,  
Mercury, moon, Saturn. (Dennis, Danny.





6262S.

04 83

Sunday, 24/25/1400~1420/  
 10-F/3M2/Pegasus/-/SS2.  
 Fine, fine image.

6263 2 0300~0400- / 7-Fm/3MB/Saturn/-/  
 Moon, 2y, 2. Test for lens mirror stop  
 (aperture) Realigned mirror.

6264S Monday, 25/26 / 1400~1415/ Image faint/  
 Gary Rosenbaum/ First light for the new  
 Celestron Comet Catcher. Not bad.

6265 M2 0200-0335/ 7-Fm/3M2, 4/ <sup>Jupiter:</sup> Pegasus → Mirror  
 moved up, new photovisual capability. Photos  
 of moon, 2y, 2. Tested 40mm eyepiece on <sup>velasco</sup> Jupiter

\*6266 S. Tues, 26/27. ~1300-1330/ 8-F/3M2/ Pegasus/  
 -/ test photos on SS2

6267 M2 0250-0315/ 7-Fm/3M4/ Saturn, Penumbral-/  
 both working well.

6268S Wed, 27/28 / ~1500-1515/ 3-F/3M2/Pegasus/-/  
 Sun, filter.

\*6269 E2 2000-2130/ 2-F/ Camp Cooper/ Michael Mage  
 students + teacher [Donna Engelbert]/ Echo/  
 Venus, through hz. First use of newly  
 redone Echo. Good scope now!!!

6270 M3 0000-0015/ 3-F/ Echo/ Moon. /

6271 M4 0030-0045/ 3-F/ Albireo -/ moon. Test. ok.

6272E Thursday, 28/29/ 1930-2030~ / 3-F/ Image Pt/ Celesti  
 Comet Catcher/ Gary, Pierrel image not very good. 9mm Nag



- 6273E. Friday, 29/30/2100-2115/3-F/FP/Ga ladriel/Ewen W/  
 Saturn.
- 6274M2 <sup>Sunday May 1</sup> ~~Saturday, 30/31/?~~ <sup>thinking?</sup> 0200-0300/8-Fm/5MB/  
 Saturn/-/Inst. of baffle & test on Jupiter,  
 Saturn, moon.
- 6275E. Sunday, May 1/0200-2200/10-F/5M4/Jupiter/-  
 CN3 1h30m W.
- 6276E Monday, May 2/2000-2230/10-F/5M4/Jupiter/-  
 CN3 2h00m W,
- 6277E2 2330-0000/10-F/5M4/Jupiter/-/"Cen A."
- 6278EM Tues, 3/4/0200-0215/10-F/5M4/ Pen-  
 umbral Jupiter, Saturn.
- 6279E. Wed 4/5/2030-2200/10-F/5M4/Jupiter/-  
 CN3 1h00m. W.
- \*6280M2 0200-0230/10-F/5M4/Jupiter/-(Peter on  
 phone)/ Comet IRAS-(Araki)-Alcock. 4th mag.  
 -coma distended; no tail.
- 6281S. 1200-1300/10-F/5M2/Regulus, 1-1SS2.  
 1/80 1/125 1/250.
- 6282E Sat 30 Apr (before 6275+4, after 6273) /3-F/  
 1930-1945/ UA main auditorium/-/ Jagelyn/  
 couldn't find Venus; clouds there.
- 6283M Thursday, 5/6 - NO LONGER PRESIDENT/  
 0100-0130/8 10-F/5MB4/Jupiter/-/CN3: no time,  
 but beautiful view of Comet?
- 6284E. Friday, 6/7/02015-2300/10-F/5M4/Jupiter/  
 Don Archer + Judy/ -4 CN3 9 1h00m W. Comet  
 naked eye now. M13, Jupiter, Sat. w/ baffle.

6285M2 0030-0300 / 10-F / JMB / Don + Judy / Jupiter /  
M51, <sup>NGC</sup> 4565, M13, Comet / CN3 0h30mE.  
Fine session.

6286 E. Saturday, 7/8/1930-2200 / 3-F / JMB / Jupiter /  
We ~~are~~ had a "Star Thingy" (says Mom)

James V. Scotti Tucson

Karen Rene (soon to be Scotti) Harlan. - Tucson

Liz Scotti everywhere USA

Paul C. Scotti

Comet IRAS - Araki - Alcock, M51, etc.

6287EM2. 2300-0300 / 10-F / Davison Ranch /  
Echo, others / TAAA / Comet, Cen A, o Cen, etc,  
Comet Kopff.

6288M3 0330-0345 / 10-F / JMB / Jupiter / - / CN3 0h15mE -  
Comet I.A.A.

\*6289 E 8/9/1930-2215 / 7-F / FP / Surveyor-2  
First light on Galadriel / So Venus. Saturn.  
Comet I.A.A. Jupiter

6290M2 0200-0350 / ~~8~~ 10-F / JMB, B / Jupiter,  
Minnowbrook / - / CN3 1h30mE. Comet I.A.A  
~2.5 Mv. Seen in Jupiter, Mabk.

\*6291AN 9/10/1900-0430 / Richard Holzli - very good seeing!!  
10-F / Michael Magee and Deborah Jensen  
JMB / My first naked eye comet!! WOW!!  
First time I've ever seen a comet. Just call  
me Freezy Denise

Jupiter, Pegasus, binoculars, Minnowbrook / Photos + vis-

Richard Wortley - good skies, the 16" showed the comet's motion beautifully! Trace is excellent!!

Don + Judy Archer.

~~the~~ - was obs. of Comet. Also saw Comet Kopff, and new "Japanese" comet. CN3 1<sup>h</sup>05<sup>m</sup> E.

6292 E.2. Roy Stowell - Tuesday, 10/11/2245-2350/  
✓ Phil Goodell "Comet. 10-F/SM4/Jupiter/Roy,  
Phil, Tom Glinas/-/Comet. Diffuse.

6293 M.E. Wednesday, 11/12/ ~~2000~~ 2030-2330/10-F/SM4/Jupiter/  
Tom, Rolf in Ottawa/ Tom Comet. Better than  
last night.

6294 E. before (6292E2)/2100-2200 int 7-F/SM4/FP/Astracorn/  
Rich Wortley, Michael/Comet. Tues 10/11.

6295 M2 after 6293/0400-<sup>13<sup>May</sup></sup>050300-0430/10-F/SM4/  
Jupiter/Tom/CN3 0<sup>h</sup>40<sup>m</sup>.

6296 E. Thurs, 12 May /2000-2130/10-F/MT Lemmon/<sup>Judi Baker</sup>  
Sunrise Group/Echo, Celestron/Jackie, Tom, etc/  
-1@. M44.

6297 M2 0300-0430/10-F/SM4/Jupiter/-/CN3 0<sup>h</sup>35<sup>m</sup>.

6298 E. Fri <sup>13<sup>May</sup></sup> 2000-2015/7-F/FP/Galadriel + Surveyor/  
Ewen, Tom, Gary R/Saturn.

6299 EM2 2130-0130/10-F/SM4/Jupiter/M57, 51, etc.  
NGC 4565, - . . .

Don Archer

Judy Hubbard

John Abough

uhh g-gee... uhh g-gee. uhh  
gosh! what observing!

6300 M3. 0145-0315/10-F/SM4/Jupiter/-/CN3 1<sup>h</sup>00<sup>m</sup> E.

- 6301 M Sat, 14 May / 0200-0330 / 10-F / JMB<sup>2</sup> / Regulus, Jupiter /  
- Tom / CN 3 0<sup>h</sup>30<sup>m</sup>E. M5, M82, M13, M8  
M20, M27.
- 6302 AEP Sun, 15 May / 2000-2010 / 7-f / Mik's house / - / - /  
Moon very close to Venus.
- 6303 EP2 2200-2210 / 7-f / near Good Earth restaurant / - / - / Mike  
+ Debbie / Moon + Venus.
- 6304 E3 2240-2235 / ~~10~~ 8-f / JMB / - / - / Moon + Venus, setting.
- 6305 M4 0145-0215 / 10-F / JMB / - Jupiter / - / CN 3 0<sup>h</sup>15<sup>m</sup>E.
- 6306 M Monday, 16 May EDT 0100-0115 / 6-f / Mikael's  
house / - Mercury / Mikael / Jupiter, Saturn.
- 6307 M. Tuesday, 17 May / ~0000-~0015 / 7-f / Toronto area, Mik's /  
Mercury / - / Jupiter, Saturn.
- 6308 M. Wednesday, 18 May / ~0200-~0215 / 3-f / Mik's house /  
Mercury / - / Jupiter, Saturn Thurs, 19 May, cloudy, rain.
- 6309 M. Friday, 20 / ~0000-~0015 / ~~8-f~~ 10-f 3<sup>2</sup>-f / Mik's house /  
Mercury / - / Moon. good image through clouds.
- \* 6310 M. Saturday, 21 / 0000-0130 / 7-F / Wsmt Sq. to LCP-  
818 and back / - / - / general viewing  
Sunday, May 22 and Monday, May 23. cloudy.
- 6311 Sun, 22, cl. ~~Some sessions missing.~~ ↘
- 6311 S. Mon, 23. 1200-10500 int / 0-F / Mt Megantic Observatory /  
others.
- 6312 M Tues, 24 / 0300-0315 ~ / ~~10~~ 7-F / JMB / - / - / general.
- 6313 M Wed, 25 / g 0300-0315 ~ / 7-F / JMB / - / - / general.
- 6314 E Thurs 26 / 2300-2320 ~ / 7-F / Blythe Calif / - / - /  
general.
- 6315, E. Fri 27 / 2000-0000 / 7-fm / RTMC / many scopes / general.

6316S. Sat. 28/ 0900-1800/ 7-F/ RTMC/ many scopes and people.

6317EM2 2000-0100/ 7-F/ RTMC/ Mercury, other scopes/ Steve Edburg, others, Michael + Debby/ -Pallas non-occ'n, General observing.

6318S Sun. 29/ 0900-1800/ 7-F/ RTMC all day.

6319EM2 2000-0030/ 7-F/ RTMC/ 29", other scopes/ M4. general obs.

6320E 30, Mon /<sup>23</sup>2330-2345/ 10-F/ SM<sup>B</sup>4/ -/-/ general.

6321E Tues, May 31/ ~~0200-0330~~<sup>23</sup>2300-<sup>22</sup>0330/ 10-F/ SM4/ Jupiter/ -/ CN3 1<sup>h</sup>00<sup>m</sup> W.

6322E Wed, June 1/ 2030-2300/ 10-F/ SM4/ Jupiter/ -/ CN3 0<sup>h</sup>40<sup>m</sup> W. June 2?

6323ES, Fri, June 3/ 1400<sup>w</sup>-~1500/ 7-F/ Image Pt/ C-11/ Pierre, Gary/ test, 9mm Nagler.

\*6324E2. 2030-2300/ 10-F/ SM4/ Jupiter/ -/

CN3 1<sup>h</sup>30<sup>m</sup> W + Nagler view of M82!

6325E Sat June 4/ 1830-0000/ 8-F/ Gilbert Ray cgd/ TAAA picnic/ Echo-I.

6326M June 5, Sun/ 0200-0300/ 10-F/ SM4/ Jupiter/ CN3 0<sup>h</sup>40<sup>m</sup> E. June 6?

6327E Tues June 7/ 0000-00<sup>CST</sup>15<sup>w</sup>/ 8-F/ Ft Dewria/ -/-/ general.

6328S Wed June 8/ 1100-1800/ 7-F/ TSP/ general.

6329EM2 2000-0200 CST/ 10-F/ TSP/ Mintaka, Mercury, other scopes.

6330S. Thurs June 9/ 1200-1800/ 8-F/ TSP.

6331EM2 2000-0230/ 10+-F/ TSP/ Mintaka, etc/ general CN3 0<sup>h</sup>45<sup>m</sup> W.

6332 S. Fri, 10/0 900-1800/10<sup>-3-</sup>-F/TSP. Mintaka judging.

6333 EM2 2100-0230/~~10-F~~ 2-3-F/TSP. A.

6334 S Sat, 11/ 0930-1800/10-3-F/TSP.

\*6335 EM2 ~~12~~ ~~200~~ 2230-0230/~~8~~ 10-F/TSP. / many  
telescope people / Mintaka, Mercury / Gary, Pierre,  
Norm Sperling, Dave Ecker. / Jupiter through  
Mintaka, a prizegiver at TSP. (Sun, 12?)

6336 E <sub>Tues, 14</sub> ~~Sun, 12~~ 2330-2345/7-6-F/El Paso/short walk.

\*6337 E <sub>Mon, 13</sub> 2000-2000/<sup>MST</sup> 8-F/Clyde Tom baugh's  
obs. / -/6" F/10/ Clyde Tom baugh, / Jupiter, Saturn,  
Uranus.

6338 M 15 June / 2-3am MST/10-F/ JMB/ Jupiter /-/ CN3  
0h45<sup>m</sup>E.

6339 M 16 / 3-4am / 10-F/ JMB/ Jupiter /-/ CN3 0h20<sup>m</sup>E.

\*6340 M 17 / 3-4am / 10-F/ JMB/ Jupiter /-/ CN3 0h10<sup>m</sup>E  
Tempel's comet indep. disc.

6341 E 18 / 2000-2200/7-F/ FP/ Surveyor / general.

6342 M 19 / ~~2100~~ 03-0400/10-F/ JMB/ Jupiter /-/  
CN3 0h~~20~~ 25<sup>m</sup>E.

6343 M 20 / Monday / 03-0400/10-F/ JMB/ Jupiter /-/  
CN3 0h20<sup>m</sup>E.

6344 ME Tues 21 / ~~9~~ 2000-2200/7-F/ FP/ Galadriel,  
Surveyor /-/ test. / Ralph, Peters, Gary R. Wed

6345 E Thurs 23 / 2100-2200 / 7-f/ FP/ G, Surveyor / general.  
Also, Skylab test. <sup>22</sup>

6346 M2 0100-0130/ ~~3~~ 7-fm/ JMB/ Penumbra /-/  
Moon, Jupiter.

Fri 24 June

#06 83

\*\*6347AN 1930-0345 / 110-7-FM/SMB/Jupiter, Saturn, Pegasus,  
Penumbra, <sup>Minnubrock,</sup> <sup>Majayab,</sup> <sup>Sky</sup> - Eclipse party. Clear sky.  
Jo Ellen Snyder (Serena Vista)  
Don Archer  
Judy Archer  
Diane E. Thebeus  
Karinanna Scotti  
Janet Scotti  
D. M. - Again!!  
Virgil B. Smith - THANKS -  
James K. Smith - Thank you -  
Lyle E. Smith Thank you

Partial Lunar Eclipse. began umbra ~ 0000.  
Jupiter - 2 moons "touching" planet early evening. Then a shadow, then two shadows. ~ 3rd contact of eclipse, ~ 0230, saw 3 moons almost perpendicular to normal plane. . . .

6348S. Sat 25 / 11 30-1200 ~ 110-F / SMB / Pegasus / Jim / SSR.

6349M2 0200-0215 / ~~110~~ 7-FM / SMB / Penumbra / Moon.

6350E. Sunday 26 / 1930-2200 110-7-F / SMB / Jupiter /

Helen L. Welborn Marnobous

Sheodun M. Welborn Very interesting

Judy Stowell - Absolutely perfect!

Bonnie Stowell - You wonderful astronomer!

6351M2 0150-0200 / 7-FM / SMB / Louette 2 / Moon.

\* 6352AN. 2000-210 1900-0500/10-7-Fm/KPNO/  
2-36, Alouette-2/Asteroid Geodesy. Monday, 27/28.

\* 6353AN 28/29 Tues/1900-0500/10-7-F/KPNO/2-36,  
Alouette-2/Asteroid Geodesy. Devosa, Palma,  
Psyche, Kallisto. Don Davis, Clark Chapman.

6354AS. 29/30, Wed/1400-1415/KPNO/Vis. Tell/Sun.

\* 6355~~AS~~  
SANS<sup>2</sup> 1920-0535 / 10-8-F / KPNO / 2-36, Alouette-2/  
Don Davis / Asteroid Geodesy. Oljato, Cybele, Eugenia.

\* 6356ANS 1915 to / 3-7 F - 3 wind / KPNO / 2-36 inch,  
Alouette / Stuart Weidenischilling / Asteroid  
Geodesy. - JULY -

\* 63579AN Jul/2 1915-0445 19-3-F / KPNO / #2-36",  
Alouette-2 / Stu / Asteroid Geodesy.

22 KALLIOPE 130 ELEKTRA 16 PSYCHE

87 SYLVIA 337 DEVOSA 511 DAVIDA

334 CHICAGO 204 KALLISTO 372 PALMA

45 EUGENIA

6358S 2/3 / 1500-1600 / 3-F / KPNO / RAZDOW, VIS. TEL / SUN.  
very large prominence - SUMMER of 1983 -

6359AN2 1915-0500 / 10-F / KPNO / 2-36, Alouette-2 / Stuart /  
Asteroid Geodesy. 130 Elektra, 22 Kalliope.

Jupiter 354 Eleonora <sup>great</sup> periods 2201 Oljato

Venus 107 Camilla 65 CYBELE

Saturn 334 Chicago 204 KALLISTO

45 EUGENIA 372 PALMA - I <sup>wiran</sup> followed telescope

For 204 + 372.

6360E Sun, 3/4 2000-2200 / 10-F / SM4 / Jupiter / - / CN3 1h00m

6361E Mon, 4/5 2200-2300 / 10-F / SM4 / Jupiter / - / CN3 on 40m W.



- 6362EM 2100-0030. ~~Tues~~ Wed, July 5/6/7/ 1-2-3-F/ JM4/  
Jupiter/ Diane Michaus, Jo Ellen Snyder, Ralph Peters/  
-1 ~~E~~ M15. Saturn. Lundy,
- 6364M. Thurs July 7/8/ 0000-0100 (cont) / 1-F/ JM/ Telescopes  
shown to Gerry Dyck. Fri - cl
- 6365M Sat, ~~7/9~~<sup>3/11</sup> 0100-0430/ 10-3-F/ JM4/ Jupiter/ Mike  
Debby, Gerry Dyck / M13, 31, var. objects. CN3 0<sup>h</sup>15<sup>m</sup>E. Sun-cl
- 6366M Mon, ~~10/10~~<sup>11/12</sup> 0230-0330/ 10-3-F/ JM4 + Southw/ Jupiter/  
Gerry/ gen. obs.
- 6367M Tues, ~~10/11~~<sup>11/12</sup> 0130-0400/ 10-F/ JMB/ Jupiter, Odyssey/ Gerry/  
CN3 1<sup>h</sup>00<sup>m</sup>E.
- 6368S Wed 11/12<sup>12/14</sup> 100-1230/ 10-F/ JMB/ Gerry/ photos.

My stay in Tucson was most memorable for the  
two observing sessions, the ride to Mt.  
Lemmon, the good talk, and the beginning  
of what I hope will be a life-long friendship.  
I value my visit w. you very very much

6363S. (number out of seq.) (session after 6369) Gerard Dyck (Gerry)  
[Very many cloudy nights] (500-1515/ 7-F/ JM2) Regulus/ Jim  
Sun + photos.

\* 6369AN. Saturday, 16/17/ 1730-0400/ 7-F/ JM4/ Reg Jupiter/  
Don & Judy Archer, Jim & Karen/ -Messier  
Projects completed for both Don (77+74)  
+ Jim (91).

6370M. 25/26/ 24/25/ 0200-0300/ 3-F/ JMB  
+ South/ -/ -/ general.

6371M. 25/26, Mon/ 0200-0430/ 3-F/ JM4 + South/

- Jupiter -1/8 missed by -1/min, possible occn of <sup>Ast.</sup> 80.
- \* 6372M Tues 26/27 July / 0130-0435 / 3-F / JM4 + south /  
Start of Meteor Project 25, and Delta Aquarid  
watch. 1 meteor through clouds + moonlight.  
27/28, cloudy 28/29, cloudy, 29/30, cloudy.
- 6373S 30/31 Saturday, 1615-1630 / 3-F / JM2 / Pegasus /  
-1 3rd set SS 2.

## AUGUST

- ~~6373S~~
- 6374E 1/2 | 2000-2010 / 2-F / Bart's house / Bart, Judy / .
- 6375E. 2/3 | ~~2~~ 2300-2320 / 3-F / Image Point / Gary +  
Pierre / First light for a 12".
- 6376S. 3/4 | ~~2300~~ 1030-1045 / 3-F / JM2 / Peg. -1 / SS 2, 4.
- 6377S. 4/5 | 1200-1215 / 3-F / JM2 / Pegasus / -1 / SS 2 / 5th set  
last Tucson session. Final for 82/83 season.
- 6378EM 5/6 | 2355-0300 EDT / -2-F / 3. Hartness House /  
David, Bill, Charles, other friends / Reminiscence of  
Bart.
- 6379S 6/7 | 1000-1700 / 3-2-F / Stellafane.
- 6380EM 6/7/8 | 1800-0230 / 7-8-9-F / Stellafane / Duane +  
Terry's telescopes, others.
- 6381E 7/8 | 8/9 Sun / 1100-1120 / 3-F / RASC - Mtll Duane,  
Terry / Aur-I. Fine but faint.
- 6382M2. 0130-0300 int / 3 WS - inside / Aur-I.  
Fine coronal effects. 8/9 - cl 9/10 - mostly cl 10/11 - lg
- 6383E Thurs 12/11/12 | 2100-2300 / 0-F / WS-818 / Dad, then  
alone walk. LCP-818-LW.
- 68 6384AN Fri 12/13 | 2130-0445 <sup>2-3</sup> / 10-F — 15-Jarnack  
Minerva, Phoebe - 1.

1245

5 at 1253

" 1259 1s (1 of these is nonshower)

108 1 1 brighter than 0

12

118 3

0045-0148

127 1

137

142

148

0210,

5 at 0220

0210-0314

0225 - 1

0238

300

308 1

314

0343 start

0343-0425.

351 - 5 at 0351.

402

249 mobs.

415 15 1

425 20

90 meteors

8 non perseid, of which

? (2 ? up. leg) ? ←

only 1 brighter than 0.

- \*6385E Saturday 13/14/21 00-2230/10-7-Fm/5-3-B/  
Minerva/ Mom + Dad/ Jupiter view. Dad really  
enjoyed it + got a good look.
- 6386ME 2330-2345/8-F 10-F/5-3-D/Minerva/-/test.
- 6387M3 0300-0420/7-F 10-F/5-3-D/Minerva/-/  
CN3 1h05mE.
- 6388EM Sun. 14/15/0200-0800/<sup>4</sup>10-F/Minerva Rolf, Linda  
Peter | ~~CN3~~ 1h40mE Rolf's telescope.
- 6389M Mon 15/16/0130-0330/10-F/5-3-D/Minerva/Peter, ~~at~~  
Robert | CN3 1h40mE.  
Tues. cloudy.
- 6390E. 2100-2300 Wed. cloudy 18/19/8-F <sup>5</sup>10-F/5-3-B/Charles/Comet Castor  
6391M Thurs 18/19/0130-0230/<sup>4</sup>10-F/5-3-D/Minerva/10"  
Alistair, Peter | CN3 again 1h40mE.
- 6392M Fri 19/20/0130-0300-0430/5-3-D/Minerva/3-F/  
Alistair, Peter | CN3 1h00mE.
- \*6393AN Sat 20/21. 1200-0500/7-Fm-10-F/5-3-D, B)  
A. Ling., S. Marshall, E. Kindl, J. Brown. B. Stropke,  
Peter + Dinne, | CN3 1h00mE.  
Sunday, 21/22. -clouds.
- \*6394E. Monday, 22/23/ 2330<sup>5</sup>-2350/6-3-F/Parliament Hill/  
-/Peter, Di-enestein/ Aurora - I. Aur in NE.
- 6395M. Tuesday, 23/24. ~0000-~0015/7-Fm/5-3-Lake-Dock/  
Peter/ Phoebe/moon.
- 6396E Wed 24/25/23 2030-2100/3-F/5-3-Lake/Peter/  
Minerva CN3 0h20mW.
- 6397E. Thur 25/26/2100-2200/9-F/5-3-L/Peter/Minerva/

CN3 0130<sup>m</sup>. W.

6398M2 0130-0200/2 2-Fm/ JAM-J-Lake/-/ Peter.

FRI- 26/27 - very hz. KINGSTON

6399E SAT- 27/28 - 1935-2300~/4-F/Olympic Stadium/

Phoebe, Peter's binoculars/- Peter, Dienerstein/ nothing visible using Phoebe from stadium due to lights.

They should turn them off during games. How else can you look at the stars?

SUN-28/29. - Mon 29/30 - TUE 30/31

TUCSON WED 31/32 - mostly cl<sub>y</sub>. <sup>cloudy-rain</sup>

6400E Thu Sep 1/2/ 1930-2130 int/ 7-F/ Gerry's house/-/ Billy + Debbie/ Jupiter.

6401M Friday, 2/3/ ~0300-~0315/ 7-Fm/ JMB/- Penumbra/ stars

6402M Saturday, 3/4/ ~~03~~ 0145-0330/ 10-F/ JMB/ Jupiter/-/ CN3 1400<sup>m</sup>E.

Sunday, 4/5 M 5/6 T 6/7 W 7/8 ✓

Th 8/9 ✓ at Fr 9/10 ✓ S 10/11 S 11/12

- all nights either cl or very short sessions. <sup>6:00<sup>pm</sup> (last night) plug</sup>

~~Monday 12/13~~ except

6403M ~~Th~~ W 7/8 ~1200-1220<sup>am</sup>/ 7-F/ West Sq/ Minerva/-/ @ VSO-I SS Cyg (11.8)

6404M T 8/9 1230~ - 1245<sup>am</sup>/ 7-F/ West mit Square/ Minerva/-/ VSO-I SS Cyg (11.8)

6405E Mon 12/13/ 2200-2235/ 1-2-F/ Cedarcrest Obs./ Phoebe/ David/ UMa, & Agl.

6406E2 2325-2340/ 3-10-F/ Hawkesbury Thing/ Phoebe/ David/ M31, Db Cl.

6407EP, Tues 13/14 - Wed 14/15/ ~2330-2340/ 7-F/ West Sq. 1-H-Ignl.

\*6408E Thursday 15/16/ 8-f/2300~ - 2315~/ Westmount Square/  
Phoebel - general. Possibly last session here.  
Fri 16/17 - cloudy Sat 17/18 cloudy  
Sunday 18/19 - cloudy BUT on Sun 11/12 there was

6409E 2000-2045/ 9-Fm / Jarnac Obs - J- Lakefront/  
Minerva / Constantine and Ginette / CN3 0h15m.  
Now, back to Mon, 19/20.

6410S. 1130-1145/ ~~8-f~~ 6-f/ Rolf + Linda's house, Ottawa

6411S → Tues clear days, so 1500-1600/ 3-F/ OSO obs / 2" Galathea / Leo / Sun.  
Minerva, 6" telescope / Linda / Sun

6412M2 (Mon night cl, Tues<sup>night</sup> cl until ~0100,) so ~0100 to ~0135/  
83-F/ OSO Observatory / only Minerva / Leo /  
M31, β Cyg cluster in Aur. / Moon.

6413E to 6431E. See Log 14.

6432M Oct. + 28 Fri / 0330-0430 / 10-f / JM4 / Jupiter /  
- / CN3 0h30m W.

6433SP Nov 1? Mon / 1700-1710 / 10-f / 3-f / city / - / - /  
bright sundog.  
lots of clouds.

6434M Sat. Fri 4/5 / 0430-0500 / 10-f / JM4 / CN3-30m E.

(6434M Sat 5/6 / 0430-0530 / 10-f / JM4 / Jupiter / CN3  
2h00m E.

6435AEM Sat / #2330-0100 / Davison Ranch / Jim, Duane,  
Pierre, etc / - general.

6436E Sun 6/7 / 1900-2200 / 10-f / JM4 / Jupiter / - /  
CN3 2h00m W.

6437M2 0430-0530 / 10-f / JM4 / Jupiter - / CN3 / h00m E.

6438M Mon 7/8 / 0435-0400 / 3-f / JM4 / Jupiter / - / CN3  
0h10m E.

6439 - see above.

- 6440M. 8/9/ 0330-0415/ 10-F/JM4/ Jupiter/-/ CN3 0h30m.
- 6441M 9/10 Wed/ 0300-0400/ 10-F/JM4/ "/-/ CN3 0h30m.
- \*6442EM 10/11/ ~~0300~~-1800-0100/ 8-F-3-1-F/~~3A~~ KPNO/  
Alouette 2, 2-36. Asteroid Geadasy. / Don.
- \*6443AN. 11/12/ 1800-0600/ ~~8-F~~ 10-F/KPNO / Alouette 2,  
2-36/ Rick/ Asteroids.
- \*6444EM. 12/13/ 1800-0500/ 10-3-F/ KPNO/ Alouette 2, 2-36/  
Rick/ Asteroids.
- \*6445AN. 13/14/ 1800-0635/ 10-F/KPNO/ Alouette 2, 2-36/ Clark/  
Asteroids.
- 6446S. \* 14/15/ 1500-1530/ 10-F/ Vis Cen, KPNO/Sun.
- \*6447ANS 15/16/ 1800-0730/ 10-F/KPNO/ Alouette-2,  
Clark/ Asteroids.
- 6448M Tues. 16/17/ ~~12~~ 0400-0445/ 10-F/~~1F~~ JM4/ Jupiter/-/  
CN3 1h00m E.
- 6449M. ~~17/18~~ Fri 18/19 / 0300- Tired! - 0315/ 7-Fm/JM2/ Pegasus/Moon.
- 644<sup>50</sup>1M ~~18~~ Sat 19/20 / 0330-0345/ 7-Fm/JM2/ Pegasus/Moon.
- 6451M Sun. ~~12~~ 20/21/ ~~03~~ 2300-2315/ 7-Fm/JM2/ Pegasus,  
Maia/Moon.
- 6452MP Mon 21/22/ 0510-0520/ 3-F/ JMB/ Rumbra/-/ moon. Cold.
- 6453E Sat 25/27/ 2145-2230/ ~~3~~ 10-F/JM4/ Jupiter  
/-/ CN3 0h30m W.
- 6454E Sun 27/28/ 2000-20105/ 10-F/JM4/ Jupiter/-/  
CN3 / 1h00m W.
- 6455E Mon 29/28/ 1830-2030/ 10-F/ JM4/ Jupiter/-/  
CN3/ 2h00m W.

6456E

Tuesday, 29/30/1990-2330 / 10-F / JM4/

Jupiter /

- /

CN3: 1<sup>h</sup>07<sup>m</sup> W. Independently discovered  
Comet 1983v, Hartley-IRAS.

Circular No. 3896

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VY AQUARI

Several observers have independently reported that this object, considered a recurrent nova (IAUC 3759) but more probably a dwarf nova, is currently in outburst. Visual (photovisual for some of the negative observations) magnitude estimates: Nov. 23.8 UT, 12.0 (D. McAdam, Telford, England); 25.37, 15 (N. Harihata, Tokyo Observatory); 27.04, 14 (J. Bortle, Stormville, NY); 28.43, 11.1 (S. Fujino, Hamamatsu, Japan); 28.79, 10.3 (R. McNaught, Royal Greenwich Observatory); 30.02, 10.7 (Bortle); 30.38, 11.2 (Harihata); 30.82, 10.4 (McNaught); Dec. 2.0, 10.7 (Bortle).

R. W. Argyle, Royal Greenwich Observatory, provides the following position, obtained by D. H. P. Jones on Nov. 29.78 UT:  $\alpha = 21^{\text{h}}09^{\text{m}}28^{\text{s}}.36$ ,  $\delta = -9^{\circ}01'57''.1$  (equinox 1950.0).

COMET HARTLEY-IRAS (1983v)

The following precise positions have been reported:

1983 UT	$\alpha_{1950}$	$\delta_{1950}$	$m_1$	Observer
Nov. 23.44265	21 <sup>h</sup> 08 <sup>m</sup> 27 <sup>s</sup> .57	- 7 <sup>o</sup> 29'52".4		Russell
23.45654	21 08 26.49	- 7 29 25.2		"
27.09552	21 04 00.51	- 5 17 50.6		Gibson
28.15905	21 02 51.88	- 4 41 05.1		"
30.09167	21 00 56.23	- 3 35 22.7	12	Skiff
30.12569	21 00 54.10	- 3 34 15.1		"
Dec. 1.94263	20 59 15.84	- 2 34 28.7		McCrosky

K. S. Russell (Siding Spring Observatory). 1.2-m U.K. Schmidt.  
J. Gibson (Palomar Observatory). 1.2-m Schmidt. Weak image, short exposure on Nov. 27; condensation and hint of tail on Nov. 28.  
R. Skiff (Lowell Observatory, Anderson Mesa Station). Measurer: E. Howell. Declination uncertain on first exposure.  
R. E. McCrosky (Oak Ridge Observatory). 1.5-m reflector.

Computations by D. W. E. Green and the undersigned show that the orbital elements and ephemeris on IAUC 3894 are reasonably adequate. Further observations are required in order to investigate an indicated possible departure from parabolic motion.

Total magnitude estimates: Dec. 1.15 UT, ~ 11.5 (D. Levy, Tucson, AZ, 0.41-m reflector; accidental independent discovery on Nov. 30); 1.98, 10.6 (J. Bortle, Stormville, NY, 0.32-m reflector).

1983 December 5

Brian G. Marsden



- 6457E. 30/31/1900-2100/10-F/SM4/Jupiter/-/  
CN3 1h00m<sup>E</sup> (W?) Obs. of 1983v, Hartley-IRAS
- 6458AEM DECEMBER 3/4/ 2000-21:0100/8-F/  
J Davison Ranch/ - 10" Telescope, Mercury/TAAA,  
1983v.
- 6459M2 0430-0610/10-F/SM4/Jupiter/-/ CN3
- 6464M. Mon 5/6/ 0100-0115/7-F/Clyde T, then Walter H's house/ -/ <sup>include</sup> general view
- 6460S. Tues. # 6/7/ 1400-1415/7-F/Walter H's house/  
Mercury/Walter/ & Sun.
- 6461E2 1930-1945/9-F/San Simon(?), Az/Mercury/-/  
AM27.
- 6462E3 2100-2115/10-F/Texas Canyon/Mercury/-/  
M31. nice.
- 6463M Thurs 8/9 10-F/SM4/SMF, SM4/Jupiter, Cassiopeia/  
Test. CN3 0h30m<sup>E</sup>.
- 6465M Fri 9/10/ 10-F/SM4/SM4/Jupiter/CN3 0h30m<sup>E</sup>.
- 6466E. Sat 10/11/ 6-F/Image Point/ Telescopes/Crory,  
Michael / Public session. Sun. cloudy.
- 6467E Mon 12/13/ 7-Fm/SM4B/Penumbra/Lima Bean/moon./  
2015-2030.
- 6468E. Mon 19/20/ 1830-1930/ 2-3-F/SM2/Pegasus/-/  
Penumbral Lunar Eclipse. Sky cleared enough  
to get good views just after max. ecl. Struct.  
Detail seen on dark limb.
- 6469E. Wed 21/22/ 1830-1930/10-F<sup>-3</sup>/SM4/Jupiter/-/  
CN3 0h20m<sup>W</sup> (make it 18m<sup>W</sup>) Comet Hartley-IRAS
- 6470AEE Thu 22/23/ 1830-2030/10-3-F/SM4/Jupiter/-/  
CN3 0h40m<sup>W</sup>. Hartley-IRAS.

6471.E. ~~Mo~~ Tues. 27/28/ # 1830 - 1930 / 3-F / JM4 / Jupiter /  
- | CN3 0h 40m W. Hartley - IRAS.

6472.M2 0300-0320 / 1-F / telescopes, Cassiopeia /  
Derald, others / unsure attempt to time graze of  
2 C 1985.

6473.M Wed 28/29 / 0300-0330 / 10-F / JM4 / Jupiter / - |  
CN3 0h 05m E. moon rise.

\*6474.MS2 # 0740-0805 / 10-F / JM4 / Jupiter / seeing very poor /  
- | occultation ingress of Saturn. Took 4m to go, occn.  
took place after sunrise.

6475.E.M Dec 31, 1983 - Jan 1, 1984 : I came, I saw (M42, M43, M2 and  
an unknown Galaxy in Ursa Major), and I went (We were  
here ~~for~~ during 2 years tonight!!)

Jim & Karen Scott (4?)

Michael Mezes

Debbie Jensen

1830-0300 / ~~to~~ 2-F - 8-F / JM4 / Jupiter / <sup>9</sup> / see above.

6476.M2 0330-0530 / 10-3-F / JMB / Jupiter / - | CN3 1h 40m E.  
1984

January

1/2 Sun. - cloudy

(481 here) 2/3 Mon. - cloudy

6477.E. 3/4 Tues. 1830-0000 / 10-F (windy) / JMB / Pegasus,  
Jupiter, Cassiopeia / Rolf, Linda, Gerald / - CN3:  
~~Oh 10m~~ Oh 10m W.

\*6478.M2, 0315-0640 / 10-3-F / JMB / Jupiter, Pegasus / Rolf, Linda, Gerald /

CN3 0h 20m E (0550-0615)  
 Quadrantid Meteors - Two Hours

Quadrantids	Time	1983	1984	Q	R, L	
345	1	3.5	P R	7	N G, R	← 28
	2	4	N R	4	Ø L	← 29
	3	1	P R	9 <sup>15</sup> 3.5	Q R	30
	4	3	N R	4	Ø D	31
	5	2.5	P R	2.5, 2	Q L, R	32
	6	4	G	5.5	N D, G	33
	7	3	G	0.5	Q R	34
	8	5	N R	0.5	N D (fast)	35
	9	3.5	Ø R	1	N L	36
	10	5	Q R	3	N D (fast)	37
	11	3	Q R	5	Q G	38
3 <sup>55</sup>	12	5	Q D	-1	Q R, G (1 sec train)	39
				only left, Doured off		2, 4 Q R, G
9 <sup>05</sup>	13	1	Q R	7	Q R	40
	14	5	Q R	2.5	G L	41
	15	4	Q G	5	Q R	42
	16	5.5	N P	3	N R, L	43
	17	1.5	N R	5	Q L (post)	44
	18	1	Ø R	9 <sup>26</sup> 3	Q D, G	45
	19	3	Ø R	9 <sup>5</sup>	Q G	46
20	1	Ø R	4	N R		47
21	-0.5	Q R	1 sec train	9.5	Q D	48
22	0	Q L	3	Q D		49
23	2.5	N P	3.5	Ø D		50
24	1.5	Q R, D	5	N L		51
25	1	Q R	4	Ø D		52
26	5	N D	3.4	Q D, G		53
27	5	Q L	5.5	Ø D		54
						← 55

56	4	N	D	84	1	Q	R,G	112	3	Q	R	140	5.5	N	R	168
57	4	Q	D	85	5	Q	R	113	0.5	D	0.4, R	141	3.5	Q	D	169
58	5, 4	N	G,R (very slow)	86	5.5	Q	D	114	3	Q	G	142	6	Q	R	170
59	3.5	Q	G	87	0.5, 0	N	R,L (fast)	115	0	N	R	143	4.5	Q	R	171
60	1	N	R	88	5	Q	D	116	5	Q	R	144	4	Q	R	172
61	4	N	L,D (fast, trail)	89	2	Q	R	117	5	N	R	145	5	Q	D (fast!)	173
62	5.5	Q	D	90	5	Q	D	118	0.5	Q	R	146	3	N	R	174
63	2	Q	G	91	6	Q	R	119	6	Q	D	147	5.5	Q	D	175
64	7.5	N	G	92	3	Q	R	120	5.5	Q	L	148	5.5	Q	L	176
65	0.5	Q	R	93	5.5	Q	L	121	2	Q	R	149	5	Q	R	177
66	5	Q	G	94	3	Q	L	122	3	Q	D	150	2.5	Q	D	178
67	4	Q	G (slow)	95	4.5	Q	R	123	2	Q	D	151	2	Q	R	179
68	3	N	R	96	3	Q	R	124	4	Q	D	152	3	Q	L,R	180
69	2	Q	R	97	4.5, 3.5	Q	R,L	125	1.5	Q	R	153	5	N	L	181
70	2.5	Q	R	98	3	Q	R	126	4	Q	R	154	5.0	Q	R,L (sec trail)	182
71	0(?)	N	R,G (lock hind - trail)	99	1.5	Q	0.4	127	0.5	N	L	155	4	Q	D	183
72	4	Q	D	100	4.5	Q	G	128	5.5	N	G	156	3.7	N	L,D	184
73	4.5	N	L	101	5.5	Q	G	129	3	Q	G	157	5	N	G	185
74	4.5	Q	R	102	4	Q	R	130	2	Q	D	158	3.5	N	R	186
75	3.5	N	L	103	0.5	Q	R,L	131	3	Q	R	159	3	Q	R	
76	0.5	Q	R,G	104	3.5	Q	D	132	3.5	Q	R	160	1	Q	D	
77	0	Q	R,L	105	6	Q	R	133	5	N	L (slow)	161	5.25	Q	R,G	
78	6	Q	G	106	4	Q	D	134	1	Q	R,G	162	7	Q	L	
79	2	N	R	107	2	Q	R	135	1	Q	R,L	163	7.5	Q	D	
80	4	Q	R	108	3.5	Q	D	136	1	Q	R,L (11 sec trail)	164	4	Q	R,L	
81	3	N	D (fast)	109	5	Q	D,G	137	0.5	Q	R,L	165	5	Q?	D (fast)	
82	5	Q	R	110	4	Q	R,L (fast)	138	5	N	G	166	4	N	L,D	
83	5.5	N	L (very fast)	111	2.5, 1.5	N	L,R (fast)	139	3.5	Q	L,R	167	5	Q	L	

- 1, N R, L
- 45 Q D
- 15 Q D, L
- 2 Q G, L
- 3 Q, L, R
- 2 Q L
- 25 Q R
- 5 N D
- 4 N L
- 55 Q G
- 1 Q R, G
- 3 Q R, G
- 4 Q G
- 0 N G, R
- 4 Q R
- 45 Q R
- 25 Q R, D
- 45 N L
- 0 Q D, L
- 25 Q R, L

Start: 0345  
 End: 0545

Observers

Rolf South  
 Linda East  
 David North  
 Gerald West and Recorder.

Total meteors: 186  
 Total time: 02h

Conditions: S very clear  
 E very clear  
 N Tucson lights below 400  
 W clear,

I had a good time. Yeah. Gerald Schmitt  
 Very enjoyable session!  
 Best session I've had so far. Linda Wain  
 Lots of meteors! Rolf meier 4/5 clouds

6479A. Thu 5/6/2200-0030/10-F/5MB/ Jupiter, Pegasus. M42, Cone?  
 Also South site: pic. of Canopus. Rolf + Linda.  
 6480M2 0255-0350/10-7-F/5M4, 2/3, P1-1CN3  
 0h 15m E.

6481S. 6/7 Fri. cloudy 7/8/3/4 before 6477E. ~1500-1530 afternoon  
 Phoebe/Linda, Rolf/Sun. Rolf Recorded session photographically.  
 6482S 7/8/1500-1530/ Colossal cave/ 9x B+L binoculars,  
 Cost of Session = 25¢ Sun with Rolf + Linda

6483 E2. 0030-0030<sup>2</sup> | 3-F | SMB | Pegasus, Maia, <sup>Mira 3.</sup> Jupiter |  
Rolf, Linda | photos, Messiers, galaxies.

6484 S. 8/9/10, Sunday | 1200-1400 | 10-F | JM2 | Pegasus,  
Mira-3. | SS2. Linda does drawing. Rolf  
and David watch. Three photos 500, 250, 125

6485 EM2 ~~to~~ 2230-0600 | 10-F | JM4 | Jupiter, Pegasus,  
Mira 3 | - | \$ CN3 0<sup>h</sup>30<sup>m</sup>E. Rolf's sn search.  
Linda does <sup>her</sup> Messier project.

6486 ~~M~~ E ~~to~~ 9/10 | 2200-2230 | 7-F | SMB, F | Rolf, Linda,  
Lonny, Gordon | - Image intensifier | beautiful views  
of Orion, UMa - 7<sup>th</sup> or 8<sup>th</sup> mag. stars!!

6487 S 10/11 | 2 | 1300-1400 | 10-F | JM4 2 | Pegasus | - Linda,  
Rolf | SS2 1/500-250-125. Linda's sun  
program.

Rolf Meier

6488 M 11/12 | 0000 ~~to~~ 0500 | 10-F | K PNO | 2-36 | Clark | Asteroids

6489 M 4/15 | 0300-0650 | 10-F | K PNO | 2-36 | Clark | Asteroids

6490 ~~AN~~ 15/16 | 1900-0630 | ~~10-F~~ 7-10-F(m) | K PNO | - | \$  
Vano Asteroids.

6491 E. Fri. ~~16/17~~ 20/21 | 2000-2030 | 10-F | JM4 | Jupiter | - |  
CN3 0<sup>h</sup>20<sup>m</sup>W

6492 E sun 22/23 | 2100-2200 | 10-F | JM4 | Jupiter | - | CN3 0<sup>h</sup>15<sup>m</sup>W

\* 6493 S. Jan. 25/84 - Larry & Joyce minus their their best  
parts - ~~long~~ the visit - telescopes, cats &  
all! We'll be back!!

6494 E. ~~185~~ 1400-1450 | 7-F | SMB | Jupiter | Joyce & Larry |.  
Fri 26<sup>7</sup> | 2300-2315 | ~~SA~~ Palm Beach | - Mercury |.  
2 UMi.

6495 E. Sat 28 | 2300-2315 | Palm Beach | Mercury |.

- \*6496E ~~to~~ Monday 30/31/2230-2300/3-F/Palm Beach,  
100 Sunrise/7x50 binoculars/-/-VSO-I; V2 Cam.
- \*6497M<sup>th</sup>/Friday, Feb. 2/3/0500-0830/3-F/Kennedy  
Space Center/-Mercury/John Grise <sup>others</sup> / Jupiter,  
Mars, Saturn, Venus / Launch of Challenger 41-B.
- 6498S Sunday, 4/5/1000-1030 / 7-F/Sarasota/ Mercury / Paula  
& Sun.
- 6499M ~Tuesday, 6/7/0000-0030 / 7-F/100 Sunrise, Palm Beach  
Mercury.
- \*6500MS Fri/Saturday, 9/10/0430-0800/ ~~9~~ 7-F/Kennedy  
Space Center/Mercury/Chuck & Ann Cole/  
Mars & Saturn in conjunction. Landing of  
Challenger 41-B. Missed rec. some sessions.
- 6501E Feb. ~~17~~ 17/18/2100-2200 int/7-F/Plaza 1-1/general.
- 6502EM 18/19/1700-0300/3-F/KPNO/36-inch, Phoebe/Stu.
- \*6503AN~~2~~ 19/20/1800-0530/10+-F/KPNO/2-36, Phoebe./Stu./Ast.  
Very odd? 683 Lanzia's period discovered to be in error.
- 6504AN~~S~~ 20/21/10330-0345/10-F/KPNO/Sun. Vis. Cen. <sup>Phoebe</sup>
- 6505AN~~2~~ 20/21/1800-0530/10+-F/~~344~~ <sup>KPNO</sup> 5M KPNO/2-36/Stu. Asteroid.
- 6506S 21/22/~~0200~~ 1400-1540/3-F/KPNO/Cliff Cunningham/Sun/  
Razdow, Vis Tel.
- 6507EM~~2~~ 1800-0300/3-F/KPNO/<sup>Phoebe</sup> 2-36/Stu, Cliff/683  
Lanzia., Diotima. Missed rec. some sessions.
- 6508M. Fri March 2/3/0530-0600/10-F/5MB/Jupiter/-/  
CN3/0<sup>h</sup>10<sup>m</sup>; Comet 1983v; Hartley-IRAS. Approx.  
Mag. 7.
- 6509M Sat 3/4/0230-0235/9-F/5MB/-/Jim/general.
- 6510M. Sun 4/5/0330-0400/10-F/5M4/Jupiter/CN3/45<sup>m</sup>E.

9 MARCH 1984

Raymond C. Zelay  
 RAYMOND C. ZACHARY  
 Mike Zelay

I enjoyed your telescopes.  
 First look at a comet - my best experience  
 in astronomy to date

(<sup>↑</sup> see 6515 EM and 6516 M2)

- 6511 E. Mon, March 5/6/ 2115-2230/10+-F/JMB/ Mira 3,  
 Jupiter/Jim/ Photos of Orion. Look at M86,  
 84, 51, ngc 4565, VSO-I.
- 6512 M2 0445-0545 110+-F/JM4/ Jupiter/-/ CN3 0<sup>h</sup>35<sup>m</sup> E.
- 6513 M. Tues, 6/7/ 0330-0450/8-F/JM4/ JUPITER/CN3:  
 0<sup>h</sup>35<sup>m</sup>. Hartley - IRAS. getting a bit fainter.
- 6514 M Wed 7/8/ 0230-0350/10-F/JM4/ Jupiter/  
 CN3 1<sup>h</sup>05<sup>m</sup> E. 1983 Hartley - IRAS, within 1° of  
 Deneb.
- 6515 EM. 8/9/ 2330-0030/10-F/JMB/Jupiter/ Michael &  
 Raymond Zachary / lots of stuff.
- 6516 M2. 0200-0345/10-F/JM4/ Jupiter/ Michael Z/  
 CN3 1<sup>h</sup>00<sup>m</sup> E. Hartley - IRAS.
- 6517 M Fri 9/10/ 0400-0535/10+-F/JM4/ Jupiter/-/  
 CN3: 1<sup>h</sup>00<sup>m</sup> SE. Hartley - IRAS
- ↳ 6522 E. R.P. Van Zandt - I'm impressed with your house (and  
 yard) of telescopes - 3-15-84
- 6518 M. Sat 10/11/ 0325 - 0420/10-F/JM4/ Jupiter/-/  
 CN3 0<sup>h</sup>30<sup>m</sup> E. Also, 1983v Hartley -  
 IRAS, fading rapidly.
- 6519 M. 11/12/ 0320-0435/10+-F/JM4/ Jupiter/-/ CN3:  
 0<sup>h</sup>45<sup>m</sup> E. Hartley - IRAS; 10-10.5.
- 6520 M. 12/13, Mon/ 0505-0530/3-9-F/JM4/ Jupiter/-/  
 CN3. 0<sup>h</sup>05<sup>m</sup> E. Hartley - IRAS. Apparently  
 has brightened to 9<sup>th</sup>.