

Batteries for cross-hair eyepiece:

Mallory Duracell PX 28 6 V

available in Coop photo department

~\$4 ea.

OBSERVATORY LOG

Phone Numbers

Dave Latham 5-7215
home - (Harvard, Mass) - 1-456-8038

Bruce Carney 5-3774
home 876-8905

Arthur Goldberg 8-~~3284~~ 3355

Phil Duffy 8-2668 2706

Al Peaceman 8-2006

Adam Finkel 8-2307

John Mackenty 8-3225

} Try Agassiz
Station, also
1-456-3395

Person	Date	Time	Activity
A.G.	FEB 4	5-10	STAR DRIFTS TO ALLISON HATS
AG+DWL	Feb 5	2-4	THINK ABOUT AXIS
AG+DWL	Feb 5	7-9	Move Telescope.
A.G.	Feb 6	1-3	set up darkroom film drying line, and Name on Bulletin board
A.S	Feb 6	9-11	STAR DRIFTS.
PD, AG+DWL	Feb 9	11-12	Move telescope. Have enough room on pier E.W!
PD+AG	Feb 11	9-11	" "

B. Carney 23 Feb 76 7:30

Outside T = 25°F.

Astrographic camera IIa-0

Pleiades 8:50 - 9:05

dropped & broke plate
try again 9:15 - 9:25

Camera mounted prime focus (not focused)
Tri-X Orion ~ 9:30

30 sec 60 sec, 120 sec
15 sec, 60 sec, 180

Mars 1/25 1/60 sec
Saturn 1/60, 1/30, 1/15, 1/8, 1/4
1/8, 1/15, 10 sec

M3 - 2 min.

B Carney

D Eaton

R Richardson

NS I Observing

Dome open 7:00 pm

Ross - Orion 5^m 7:30 pm Carney

Pleiades 5^m 8:15 pm Eaton

10-inch Saturn

4 x 1/8 sec

4 x 1/15 sec

4 x 1/30

4 x 1/60

4 x 1/125

} Richardson

Closed dome 10:20 pm

S.T. at 7:50

At 0^h UT 28 Feb 76 ST = 10^h 27^m 48^s

7:50 EST = 00:50 UT ST ~ 11^h 17^m 48^s

long Carb =

4^h 44^m 31^s

ST 7:50 EST 28 Mar 76 = 6^h 33^m 31^s

α (Pleiades)

3^h 43.9

H =

2^h 49^m 4

A. Goldberg 8:30 Feb 29 looked at Mars
-11:00

P. Newirth 9:00-11:00 Feb 29 looked at Mars

A. Peaceman 9:00-11:00 Feb. 29 looked at Mars

H. Goldberg 10-11 3/5 worked on cabinet

Opening! 5-7 3/5
A Goldberg 7-11

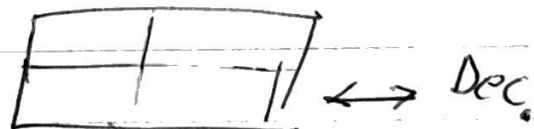
Open house

A. Peaceman - arrived at 4:15 AM
3/7 and found the motor on!

H Goldberg 3/7 Sorry! No damage
done, I hope.

Trail of W. Star for pole alignment

Start ~~W. Star~~ Telescope 0^h camera
horizontal



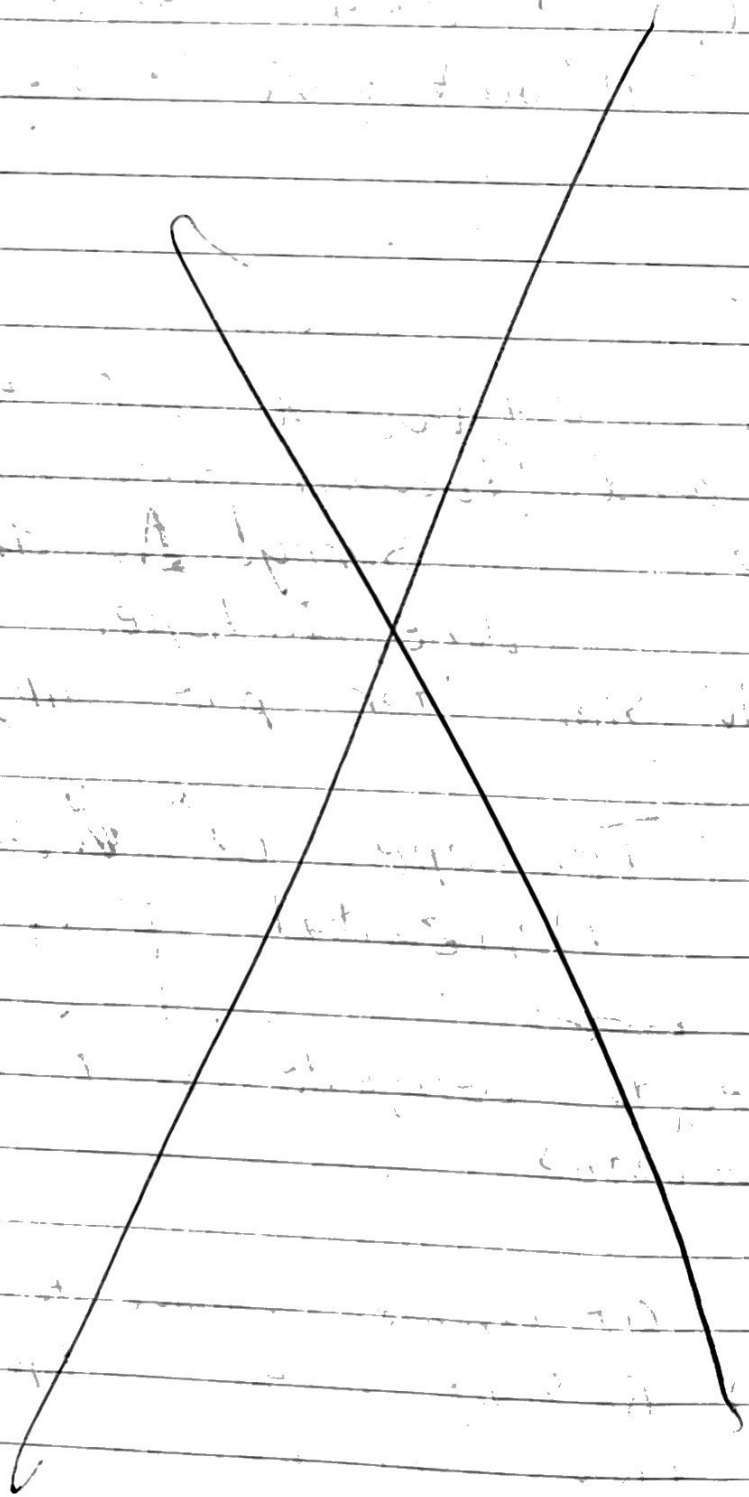
Drift in dec_n to designate start of exp_n
10 seconds

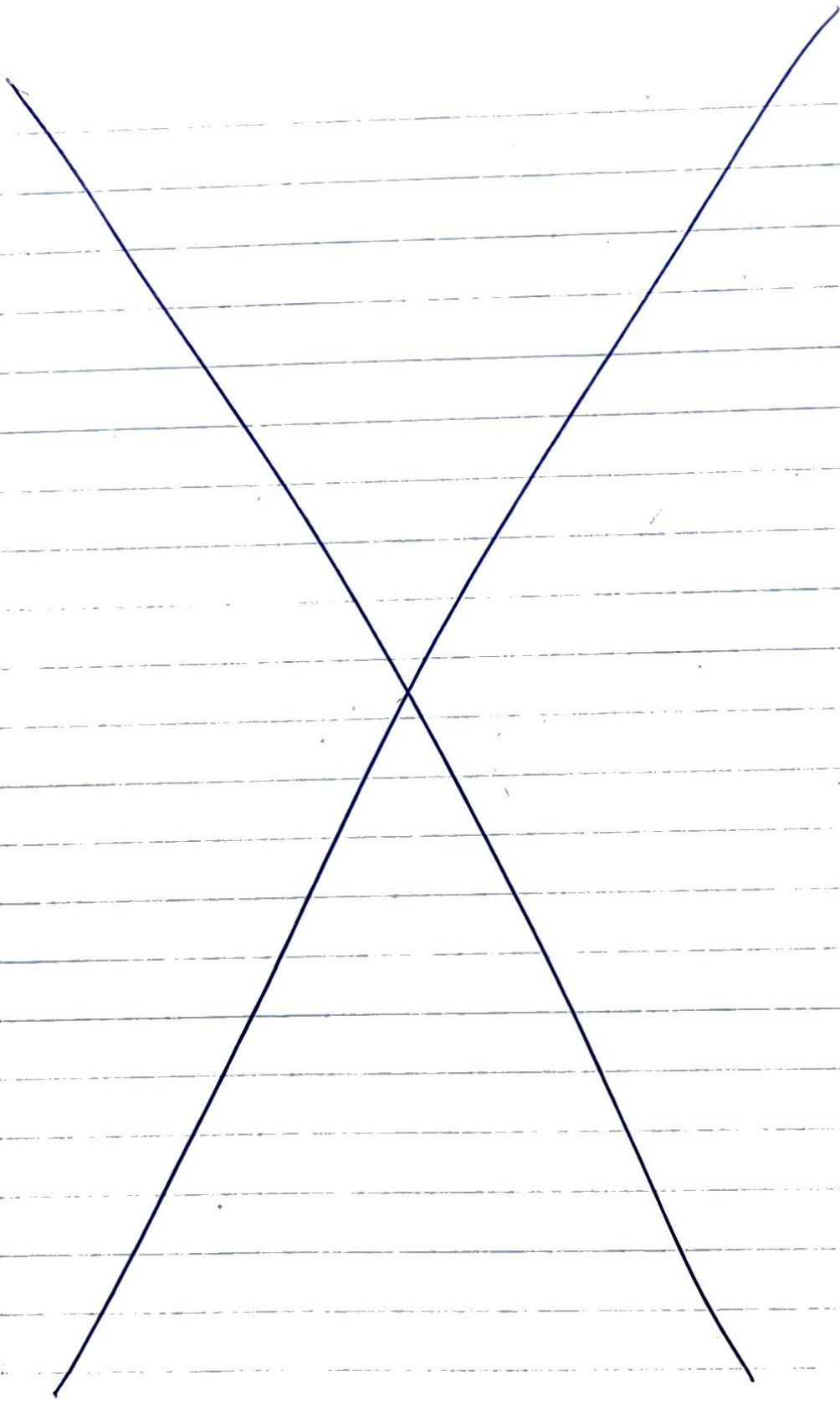
Start 8:50 Cut exposure, continue to track 9:20
(close dome) Re Start 10:40 Stop 11:03

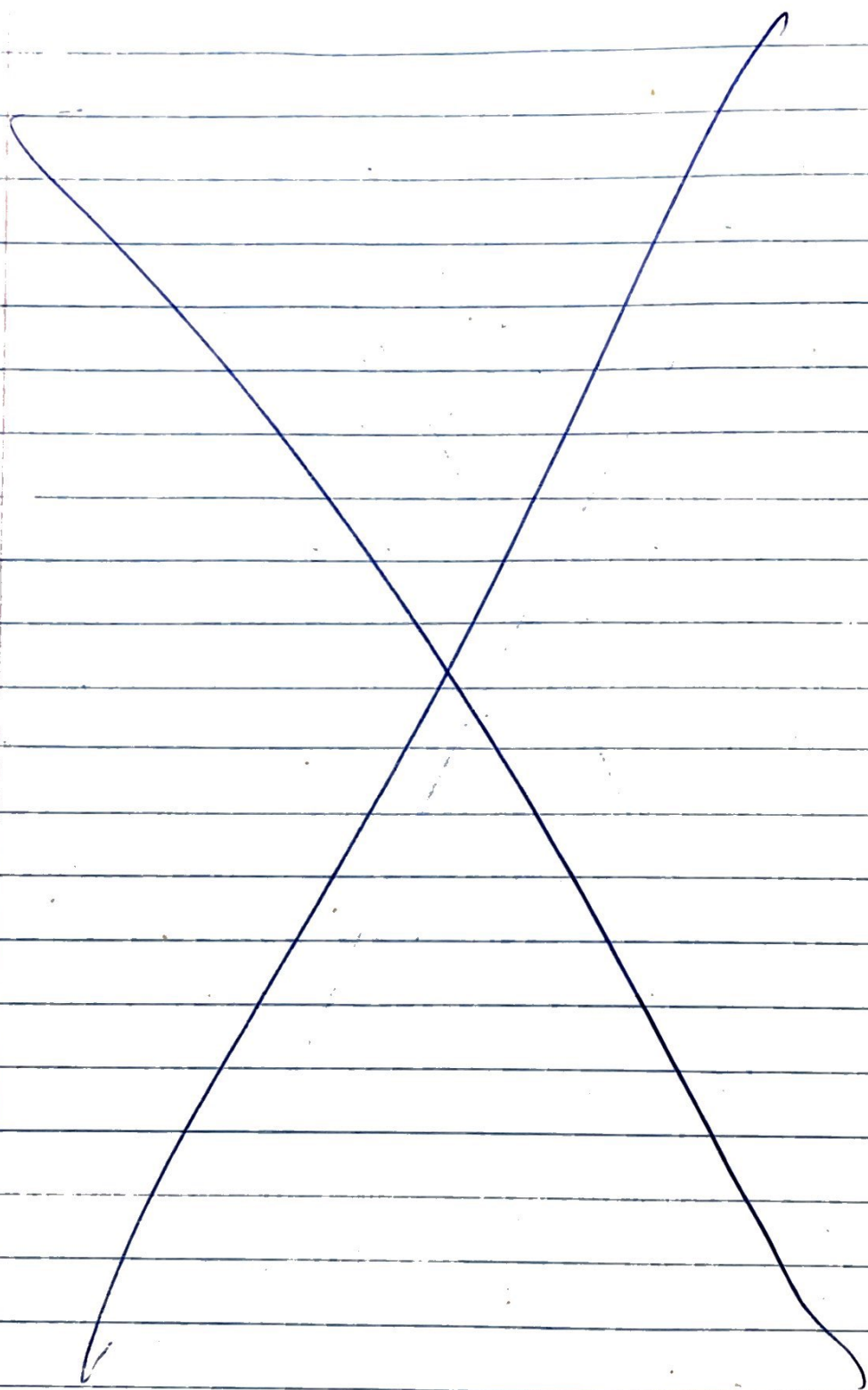
Heavy winds blow down posters.

8:50-9:20, 10:40-11:03, 11:48-12:14

J. D. Smith - 4:30^{AM} - 3/8 - Comet West
Dw. Quander " " "

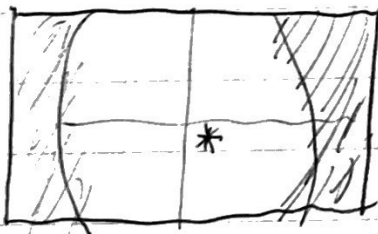






Exposure	Time	Start	Finish	R.A.	DEC.	Notes
1		9:52	10:05	120°	82	Telescope atop pier
		10:10	10:57	135	82.5	Camera horizontal Seeing fair. ~? vert. off

2 Notes Camera horizontal, Exposure began w star close to center of field, slight glittering of image while taping camera to telescope. Telescope, RA, slightly to left of verticle on pier. no sign of falling over as yet. Bad Seeing. beginning drifted out of field.



beg

Now

Two views.

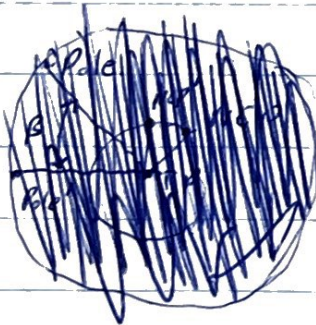
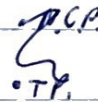
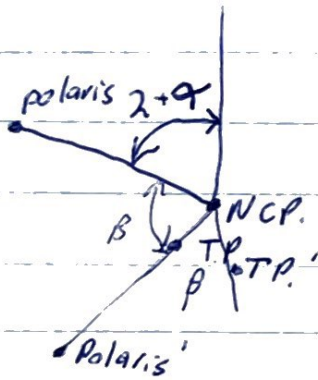
Fine adjustment

- Polaris (208^m, 0)
- NCP
- TP

Rough adjustment

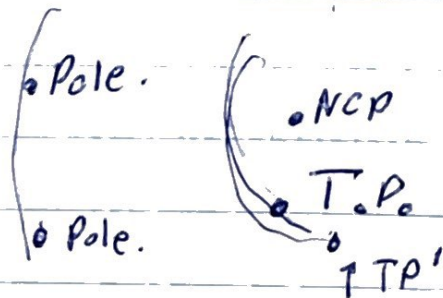
- TP
- Polaris (90°)
- NCP

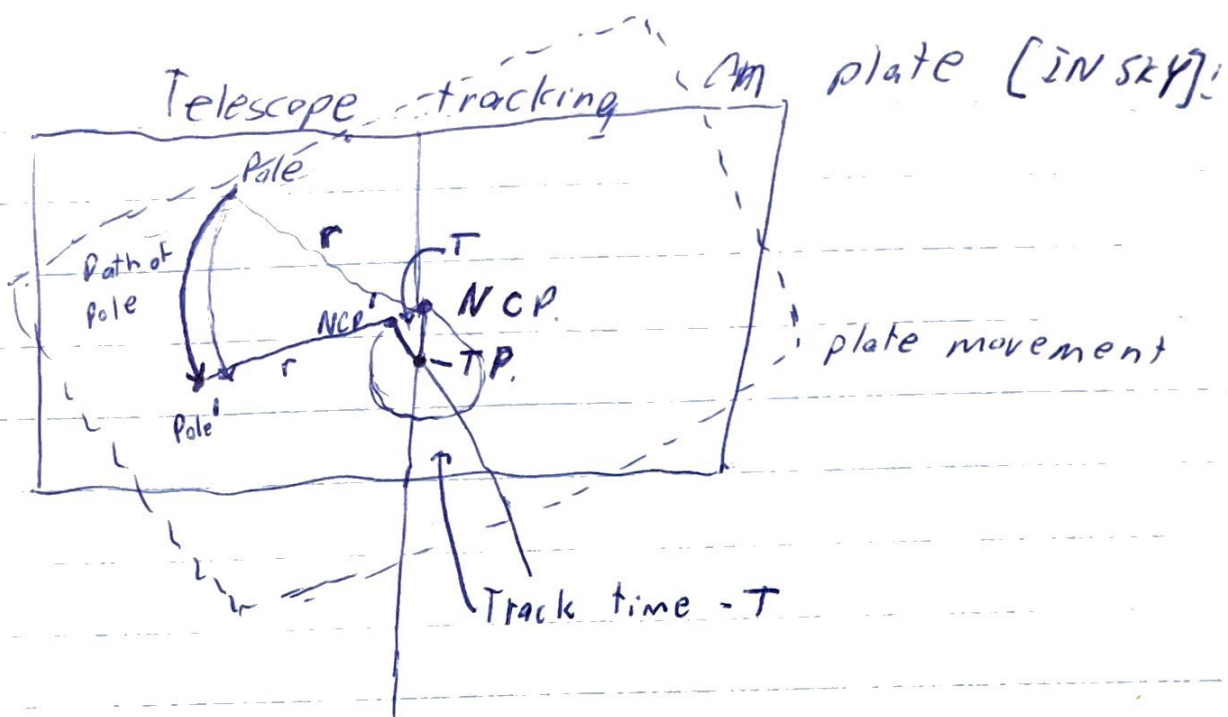
α hours sidereal time



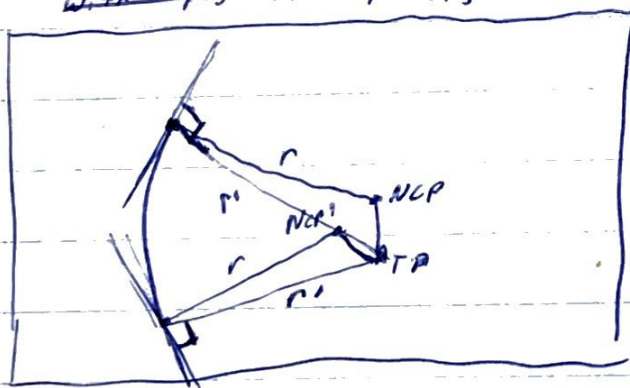
T.P.
Not Tracking.

C.P.P. Celestial grid





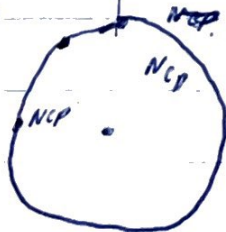
~~STARTING TIME + TANGENT TO CURVE GIVES NCP~~
~~with pos of pole's~~



~~finishing time, tangent~~
~~and coordinates give NCP'~~
~~total time, NCP and NCP' give~~
~~T.P.~~

Center of arc is pos. of T.P.
 Time of start and

Path of Pole, is not a circle. coordinates
 of Pole gives NCP,
 Time gives adjustment.



• Pole

• Pole

• WCP +6

• T12

• WCP

27 Feb 76

Dome open 7:25 pm

Clouded out - dome closed 8:40 pm

Dome re-opened 9:15

Ross - Pleiades - 9:24 - 9:32 (8 min)

ST 10:10 pm EST ~ 8^h 53^m

α 8^h 37^m

H = +16^m

Bruce Carney

Ross - M44 (Praesepe) 10:16 - 10:21 pm

Alan Peaceman

Dome closed 11:00 pm

28 Feb 76

B Carney dome opened 7:12 pm
 $T_{out} \sim 35^{\circ}F$

Ross camera - Pleiades 7:29 - 7:39 pm

6h 29m
3h 44m

Ross - NGC 2244 8:41 - 8:51 pm

2h 45m

9h 51.7

Ross - M81/M82 10:10 - 10:20 pm

0h 52m

5h 32.9

Dome closed 10:55 pm

4h 18.8

3h 37m

2h 40.0

29 FEB 1976

opened at 8:15

Saw Pluto, Comets.

Telescope blew up at 9:47.

Can this be fixed?

~~1/24/76~~

March 1, 1976

A. Peaceman - opened 4:35 AM
looking for comet West
Clouded out
Closed at 5:41 AM

March 6, 1976

A. Peaceman - opened dome
at 4:30 AM - again looking
for comet West.
Clouded out, dome closed at 5:25 AM

March 7, 1976

A. Peaceman, D. Eaton - opened
dome at 4:20 AM clouded out.
Dome closed at 5:45 AM

March 8, 1976

A. Peaceman - dome opened 4:15 AM
D. Eaton

Success

Tout = 30°F

Ross camera - Comet West!

4:48 - 4:54 AM

Dome closed 5:55 AM

March 9, 1976

A. Peaceman, D. Eaton

Dome opened at 4:35 AM Tout = 23°F

Ross camera on Comet West

4:54 - 5 AM

6 minutes

Dome closed at 5:45 AM

March 11, 1976

J. Rosenfield + Rob Richardson

open - 9:30 PM

close

11:45 PM

Obs. observing +

(Mars, Saturn)

March 12, 1976
A Peacemaker - dome opened
at 4:15 AM $T_{out} = 24^{\circ}F$

Ross camera on Comet West
Big crowd to watch! 4:38 - 4:41
7 people 7 ~~prob~~ minutes
Dome closed at 5:50 AM

3/14/76 P. Dolly + R. Richardson
7:30 - 8:30

Solenoid for right ascension
clamp doesn't work; electrical
connection seems OK

15 MARCH

The threaded nut on the RA clamping
solenoid shaft which threads into the
L-shaped facing piece was completely
backed off, so that was threaded
back in as best we could & tapped
with a screwdriver & "hammer" into
the slot to try to seat it.

Now, the mechanism was not clamping enough so we adjusted the big $1\frac{1}{4}$ -inch brass nut in tighter and screwed in ten Allen-headed machine screw to hold it in. If the clamping trouble redevelops try the same procedure. Allen-headed screw should be in contact with the plate.

15 Mar 76

James Rosentvedt + Rob Richardson

Photographed Jupiter @ 7:30 - 9:30

James R - Px 135-20 125 / 60 / 30 - speed

R. Richardson Px 135-20 5 @ $\frac{1}{30}$

10 @ $\frac{1}{60}$

5 @ $\frac{1}{125}$

Dome closed at 9:15 P.M.

Mar 15 1976

A. Peaceman

Dome opened 11:15 PM

looked at moon, Saturn, Mars

dome closed 11:45 PM

17 March 76

Rob Richardson

Dome opened 6:30 PM

Photographed Jupiter with PX 135-20

3 x 60 sec

COLD NIGHT!

2 x 30 sec

4 x $\frac{1}{4}$ sec

6 x $\frac{1}{8}$ sec

~~and~~ another roll of PX 135-20

2 x 60 sec

2 x 30 sec

2 x 1 sec

2 x $\frac{1}{2}$ sec

4 x $\frac{1}{4}$ sec

4 x $\frac{1}{8}$ sec

4 x $\frac{1}{16}$ sec

Dome closed at 9:00 AM

18 March 76

Dome opened at 3:20 AM

Temp = 21°F

couldn't find comet on
declination 10 58

Dome closed 5:30 AM

18 March 76

Rob Richardson Dome Opened @ 6:45 PM

Photographed Saturn w/TX 135-20

2 x 60 sec

3 x $\frac{1}{15}$ sec

3 x $\frac{1}{30}$ sec

5 x $\frac{1}{60}$ sec

5 x $\frac{1}{125}$ sec

Photographed Mars w/PX 135-20

2 x $\frac{1}{4}$ sec

6 x $\frac{1}{8}$ sec

3 x $\frac{1}{15}$ sec

3 x $\frac{1}{30}$ sec

3 x $\frac{1}{60}$ sec

3 x $\frac{1}{125}$ sec

} Done through
red filter
#25A

3/20/76

Dome Closed @ 8:50 PM

P. Doffy: Open House.

7:45 till 11:30

saw Mars, Saturn.

21 Mar 76

Dome opened 3:40 AM

2103
1414
649

reads $17\frac{1}{2}$

Should be 19.18

look D-10

Tout = 50°F

$4\frac{1}{2}$ minutes 4:45 - 4:53

Ross camera on Comet West

Dome closed 5:30 AM

R.A.

Look decl $\rightarrow 10.2$

21h 3min

14 14

GM 48 min

back up from Arcturus \rightarrow

Arcturus =

R.A. 14.14.45.2 Dec 19.18.24

~~Dec~~

22 Mar '76

Dome opened 7:30 - couldn't get
Jupiter - will have to come earlier
tomorrow!

Photographed Saturn

15 secs - 3	$\frac{1}{60}$ - 6
30 secs - 3	$\frac{1}{125}$ - 2
$\frac{1}{15}$ - 2	$\frac{1}{4}$ - 2
$\frac{1}{30}$ - 3	$\frac{1}{5}$ - 2

Dome closed 9:38

Journey Rosenfeld
Rob Richardson

23 MARCH '76

DOME OPENED 3:55 AM

21.00.4 Comet

14.14 Arc

6 hr 46 min

Observed at { Dec = 10.07
A.A. = 10 hr 25 min

3 34

0 46

10 25

11 25

comet no longer
visible through 3-inch
at 5:10 AM

TEMP \approx 25° F

ROSS CAMERA ON COMET WEST

3 minute exposure 4:54 - 4:57 AM

BUT ~~PLATE~~ PLATE DROPPED FROM SCOPE DURING

REMOVAL. SHIT! DOME CLOSED 5:40 AM
re Eaton

23 Mar 76

Dome opened at 9:15 PM
Nat Sci 9 viewing

Ross camera on Saturn
4 min

Richardson on Mars
35 mm

Dome closed 10:30 PM

3/23/76 P. Duffy
10:30 - midnight
looked at M35

24 March 76

Tout = 39° F

A Peaceman, D Eaton

Dec. 10 $\frac{1}{2}$

~~AA~~ H = 1 hr 53 min

Dome opened 3:30 AM

Ross camera on Comet West
4:13 - 4:18 4 $\frac{1}{2}$ min

Dome Closed at 4:30 AM

(Dome open 7:00)

24 Mar 76 - NS J observing
7:45 - 8:30

Jupiter - 1 roll plus x; Saturn 2 rolls plus x; Mars
~~Jupiter~~ 2 roll + x;

each 2 x 60 secs

2 x 15

2 x 2

2 x 15

2 x 5

2 x 4

2 x 30

2 x 1

3 x ~~15~~

4 x 60

Dome close 10:05

James Rosenfield

25 Mar 76

Dome opened 4:00 AM

(one-eyed) R. Richardson, J. ~~Rosenfield~~ Rosenfield

KABOOM! NOTHING! AARRGGH!!

AUGH! YEOW! Dome closed 5:30 AM

W HOOOPS!

28 Mar 76

Rob Richardson

Dome opened 11:10 P.M.

Observed Mars, etc.

Dome closed 12:10 AM

26 MAR 76

Dome opened 10:00

Gen. observing; Mars, Saturn;
Orion nebula not visible

James Rosfield

(left it open for A. Goldberg)

left 11:00

P. Dufly 3/27/76

Came 2:00 AM

left 2:30 AM

Arthur Goldberg

April 5 ⁸ ^{S.T.} ^m ^s
OⁿU.T 12^h 53^m 41^s

Cambridge + 4 44 31.05

Harvard (Ma.) 4 46 14.2 12 53 41

4 44 31

Conversion for 4:50:00.16 352 46

33	30	184
- 24	000	0
9	50	18

Arthur Goldberg April 5
Richard Wake " "
John Tenry

7:30

8:45 left

Alan Peaceman

Looked at Saturn, Mars

Dome Closed 9:35 PM

7 April 76

Dome Opened 4:30 AM.

Venus Clouded OUT AGAIN !!!

~~ARRRRGH!!~~

ARRRRGH!!

(R. Niliandson & J. Rosenfield)

Dome Closed 5:30 AM

7/16

7 April 1976

Alan M. [unclear]

Dome opened 7:05 PM
closed 7:30 PM

10 April 1976

Bob Richardson

Dome Opened ~~at~~ 4:30 AM

Sky perfectly clear at 2:30 AM. But can it remain so for a mere three hours longer? Of course not!

Dome closed disgustedly 5:20 AM

10 April 1976 P. Duffy, A. Peaceman
Gen. Observing

Dome closed 11:00 PM

Declination Unclump is broken

11 April 76 Bob Richardson

Arrived to find busted declination.

4/11/76 P. Duffy

Arrive 7:30

fix declination

left 8:20

12 Mar 76 Alan Peacema
Dome opened 7:05 PM
looked for Mercury but too
late
closed 7:25 PM.

4/12/76 P. Doffy
Finishing declination clamp
arrived 9:40
left 10:40

13 Apr 76

NS 9 : dome opened 9:30 pm
viewed Moon, Saturn, M3
good night, tho' hazy

P. Doffy : 10: PM till 11 PM

tried to clamp declination circle
in place. It should be calibrated
correctly; please indicate if otherwise

The hour circle is clamped in place
+ hence cannot be calibrated. However,
if the sidereal clock is correct, ~~then~~
& (which it is at least approximately)
then the "fudge factor" (calibration error)
for the hour circle should be + 9^h 50^{min}

ie: $HA = ST + a + 9^h 50^{min}$

Please indicate if this is not correct.

4/14/76 Rob Richardson DOME OPENED: 4:00AM
Clouds in the east again. This is becoming
monotonous in the extreme!

DOME CLOSED: 5:00AM

4/15/76 R. Richardson Dome Opened 4:00AM
NO LUCK Dome Closed 5:05AM

4/16/76 P. Doffy

Telescope open to public 7:30
to 11:00 PM. Saw Saturn, Mars,
Jupiter. Seeing very good. Photo-
graphed Saturn, Mars (35 mm).

4/17/76 P. Dugly.

Forgot to turn off drive!
Came 3:30 AM, left again
4:30 AM.

4/18/76 P. Dugly

Open to public
9:30 - 11:30

4/20/76 P. Dugly

Dome Opened 11 PM

rigged up projection system to
take hi-power pix of Saturn, but
got dived out. Camera is
loaded w/ 20 exp. of plus-X.

Dome closed 11:45

P. Duffy 4/23/76

Dome opened 10:40
closed 17:00

A Goldberg.

~~DE~~

Placed match

Carried matching shelves upstairs
and installed beside cabinet,
hung sidereal clock and cleaned
up general disorderliness ~~of~~.

4/26

5-5:30

P. Duffy Rec April 28, 1976

Dome opened 8:15
hope to photograph saturn,
if weather holds out!

Took 2 rolls on plus-X
using projection system to give
more magnification.
Dome closed 11:20

P. Duffy 4/30

Open to public 8:30 - 10:45
sun clouds + Saturn

白克瑞 别笑!

John MacSant

May 2

Gloria Wu

(NS 2)

9:00 pm

Titan + Rhea

observed Saturn + 2 of its brightest moons.

hazy evening, hard to see much else.

hard to see Tethys + Dione

(10.3 mag) (10.4 mag)

5/3/76

Gloria Wu, P. Duffy +
A. Peaceman

Dome opened 8:35

will

1) observe Saturn

2) look for Mercury

3) photograph moon.

Uranus: 5/3/76

R.A.: $14^{\text{h}} 09^{\text{m}}$

δ : $-12^{\circ} 30'$

Took 1 roll ^{tri-}plus X of moon
(prime focus)

~~At~~ Dome closed 10:05

5/4/76 P. Doffy + G. Wu

Dome opened 8:40

observed moons of Saturn

took 20 exp plus X
of moon.

Seeing fairly good

5/5/76

Paula Levine P. Doffy, G. Wu + friends Arlyce Bewick

Dome opened 8:35

to do Saturn project

closed 9:35

Seeing is bad.

Misty, windy

R.A. unclamp not working
again, electrical connection ok.

DO NOT USE TELESCOPE UNLESS
THIS IS WORKING!!!

5/6/76 P. Duffy + A. Goldberg

Work on R.A. unclamp.
For instructions how to fix, see
March 15 entry.

Gloria Wu came to observe.
Hazy seeing.

5/8/76 P. Duffy; Gloria Wu.
Sagwin project
and open house
Dome opened 8:30
Saw Uranus!

11:30 PM

checking out 4 moons of
Saturn. ~~The~~ Tethys should
have made ~~some~~ denable progress in its 2 day

revolution. However

Rec. Saturn was so low in the horizon

the seeing was not conducive
to much productive observing.

+ P. Doffly

9 May 8:30 PM / Dome opened
Gloria Wu - Nat Sci 2 Project
Dome closed 10:30 PM

10 May 8:30 PM Dome ~~closed~~ opened
Gloria Wu Nat Sci 2 Project

D. V. Baak

Clear night

but seeing is just about average

Dome closed 9:15 PM

11 May 8:00 Dome opened
James Rosfield
look for Mercury - or Uranus

^{too} misty
Dome closed 9:30 - no go...

11 May 8:50 Dome opened
for Nat Sci 2 Observing Project
Gloria Wu.

Dome closed 9:05.

Too ~~heavy~~ cloudy.

12 May 11:52 Dome opened John Tarnay
1:32 John Wu, Bruce Barnes
Bruce Barnes

Not very bright

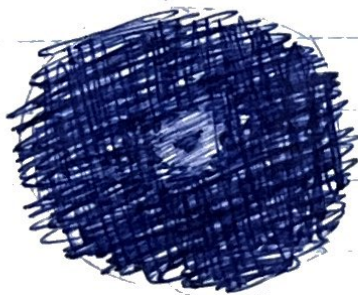
seeing - actually not great, fairly

jumpy. Viewed Saturn, Moon, Elyrae (components
barely resolvable) and ring nebula.

Ring nebula very nice in 20mm eyepiece

There are heavy
intermittent tremors of
the building

Dome closed 12:35 AM



5/13 A Goldberg. Tape recorder
begins at 20.

Dome opened 9:06

Instructed Paula ~~Levin~~ Levin

David van Baak

closed 10:07

Visitors 5/15 Opened 8:30 A Goldberg.
~~NI NI~~ General Observing.

1
RA Dec
Neptune 16^h 47 34 -20 48 54
correction. 9 50
17 45
20:22 34

Uranus 14 08 ~~51~~ -12 28 32

Check correction on Saturn.

Sat. Correction H.A. 24 00
9 14
- ST 17 02
- RA 8 01

$$\begin{array}{r} 3314 \\ -2503 \\ \hline 811 \end{array}$$

I get $8^{\text{h}} 11^{\text{m}}$ correction.

Recorder

Brigg 491-7265

$$\begin{array}{r} \text{Uranus RA } 1409 \\ \text{ST } 1913 \\ \hline 3322 \end{array} \qquad \begin{array}{r} 3322 \\ -24 \\ \hline 922 \end{array}$$

On Telescope 1522

$$\begin{array}{r} \text{Uranus } 1647'34'' \\ 140852 \\ \hline 239822'' \end{array}$$

$$\begin{array}{r} \text{Nep.} \\ 239 \\ 1521 \\ \hline 1800 \end{array} \qquad -2049$$

~~At~~ Arcturus α Bootes 14 13 +1926
M 3 13 40 +2838
00 33

Closed 1:30

Saw Uranus - green
M5
Neptune - perhaps

May 20 5:30 ~~che meche~~
message pick-up - nothing
no clear nights 5/15~~18~~-5/20

May 21 Arthur Goldberg, Paula Levinn
David van Wouk
General Observing
Open 9:20

Neptune 7' north of 8.7^m star
RA. 16^h 46 50

Close to antares -25° 16.5^h
319 SCOR C M1 + B4

16 26 20 - 26 19 22

+ 26
X 3.7 AnV

182

780

962

= 16^h 27^m 30^s

Nep - Antares

16 46 50

16 27 36

19^m 14^s

Jeanne Robinson
Not home June 1-15
June 15 on
776-5829

	R.A.	Dec.
M101	14 ^h 01 ^m 49 ^s	+54° 35'
Ursae Majoris	13 22 00	+55° 11'
	<hr/>	<hr/>
	39 ^m 40 ^s	0° 26'

30 People show up.

Left ~~with~~ David 120

Ring Nebula in Lyra

Between $\beta + \gamma$ Green tinge?

Next, M51 in Ursa Major. See nuclei of both galaxies, plus some diffuse nebulosity.

Next, α Sco (Antares), then to β Sco, a double easily split.

35 η Oph	16 ^h 07 ^m 30 ^s .5	-15° 39' 53"
24 Sco	16 38 40 .6	-17 38 50
Δ	31 ^m	1° 59'

Found 24 Sco. To go to Neptune,

Neptune 21 May	is at 16 ^h 46 ^m	-20° 50'
24 Sco	16 ^h 39 ^m	-17° 39'
Δ	7 ^m	3° 11'

Seemed to find it, as in Sky + Telescope,
north of a star \approx 1 mag fainter. But couldn't
see any definite disk.
That's about 3am.

Then to the newly risen \approx 22 day old moon.

3.30 am.	μ Andr	00 ^h 54 ^m	38° 14'
	M 31	00 ^h 40 ^m	40° 36'
	Δ	14 ^m	2° 22'

Failed.

Failed.	β Andr	1 ^h 7 ^m	35° 21'
	M 31	0 ^h 40 ^m	40° 36'
	Δ	27 ^m	5° 15'

Found it.

Left at 5.15 am. Δ Van Breeck

Sat 22 May 1976. D. Van Baak, Paula Levihn
Opened at 8:45 pm. Went to Saturn.
Closed at 10:40 pm and back
Trouble with file cabinet; wouldn't lock.

~~Sat~~ 23 May '76 James Rosefield
D. opened 8:00 (light) (NAT SCI?)
wt correction { Uranus - 12⁰⁰2" Dec } looks
 { 12h12m RA } Great!
 { Saturn - (see below)

~~Neptune~~ Neptune - no go!

~~was~~ photographed Uranus -
3 rolls Plus-X
(secs) - 15, 10, 5, 2, 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{15}$, $\frac{1}{30}$ (2 of each, 4 at $\frac{1}{4}$, $\frac{1}{8}$)
good seeing, clear wite
~~Done~~ ~~Check~~ at last

Paula Levihn - observed Saturn

ST 9:50 p.m. EDT 23 May 76

= 0:50 U.T. 24 May

$$\text{S.T.} = 16^{\text{h}} 06^{\text{m}} 52^{\text{s}} + 1^{\text{h}} 50^{\text{m}} + 20^{\text{s}}$$

$$= 17^{\text{h}} 57^{\text{m}} 12^{\text{s}}$$

$$\text{S.T. Cambridge} = 17^{\text{h}} 57^{\text{m}} 12^{\text{s}} - 4^{\text{h}} 44^{\text{m}} 31^{\text{s}}$$

$$\text{S.T. 9:50 p.m. EDT} = 13^{\text{h}} 12^{\text{m}} 41^{\text{s}}$$

DOMED - CLOSED - 12:30

Wed 26th May. D. Van Baak

Opened up at 8:30 pm, looked at Saturn.
Paula Levinku + friend saw the view; recorded
positions of moons. Clouds rapidly advancing
from the west. Left at 9:20 pm

Thursday 27th May D. Van Baak, Paula Levinku, guest.

Opened at 8:30 pm; to Saturn in a very cloudy
sky.

Arthur

	RA	Dec.
M 3	13 40	+ 28.38
Arcturus	<u>14 13</u>	<u>+ 19 26</u>
	- .33 ^m	89° 1.2

Alan Peaceman

Guests:

Tony Gottelson

Diane McLean

Monica Bachner

Dave Anderson

Ruth Kevess

Bob Valderoy

Dome Closed 11:40

May 27 Thurs

G. Waid, Tony, A. Bowne

Dome opened @ 11:55 pm

Trouble w/ file cabinet, (cf
SAT 22 May)

M13 sighted.

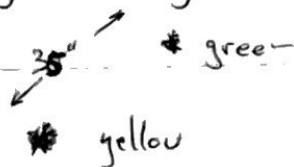


looks like →

(a bit) hazy ~~nothing~~

Viewed Albireo (β Cygni)

Gorgeous yellow and green binary!



Dome close 1:00 AM

Flashlight out of batteries!

5/28/76 P. Duffy Open House
Demo opened 9:00

Hazy

Dome closed 9:40

6/3/76 A. Goldberg:
Took No messages Delivered
Sky + Tel and Astronomy June.

6/4/76 A. Perseman

dome open 9:50 PM

closed 10:25 PM

5 guests looked at Planets
~~Part 1~~

6/4/76 : Arthur Goldberg
Guests: Sam Z. Motley
Alan Goldberg

Moon

♁ Ursa Major Double

NGC 5322 m_v 10

Just visible

10:30 - 1:10

6/5/76 10:30 Clouded Over A. Goldberg

6/7/76 9:30 P. Duffy; personal
observing.
couldnt find M94
See you next fall!

6/14/76 Professor Gingerich

Jonathan Gingerich

Observed the heavenly hosts

ε Lyrae

10-11 pm

June 15, 1976 Owen, Jonathan, Peter Gingerich

Ring Nebula

ε Lyrae

M 13

β Cygnii

July 4, 1976 Owen Gingerich and about 12
friends, The Moon & fireworks!

Hello, this is the Michael Telescope on top of Harvards Science Center. ~~We will be~~
During summer school we will be open for spontaneous observing on clear Friday and Saturday nights from dusk until midnight. Anyone interested in pursuing more serious observing may learn how to operate the telescope and use it at his leisure.
~~If~~ This is a recording device. If you leave your name and phone after the beep we will ~~be~~ get in touch ~~and~~ to ~~that~~ teach you how to use the telescope

July 9: Michael Brown & one visitor - observed
nearly full moon.

Problem: Door doesn't open all the way,
obstructing the youth region.

July 10 Michael Brown - many visitors - power suddenly
stopped and drive & controls won't work

7/15 10:15 Calculate S.T.

19. 31 53 S.T. at ~~0~~^h U.T. July 15
midnight at Greenwich
- 4. 44 31 longitude of HCO

+ 10. 30 — local time

25 17 22

- 24

1^h 17^m

July 15, 1976

D. Latham

Problem with power was tripped circuit breaker, #14 in right-hand cabinet. Reset, checked all functions, all OK.

Two screws in yaddle cover were broken. Removed with easy-out, etc. Need some 10:32 replacements.

July 17: Michael Brown - while observing King Nebula there was a short circuit - what gives?? About 15 people showed up for general observing between 9 and 10:30.

July 19 Bruce Carney - no power yet to drives but there is apparently power into the telescope.

July 20 lose torques - Restored power to Telescope. Replaced 20 A fuse (bottom one on rear right wall), Reset breaker. Tried all functions no failure. I'm leaving several 20 A fuses for spares (on desk) If you need to replace a fuse, make sure breaker #14 is off, that's very important, because otherwise 120 V

is available on some of the terminals, and it
can be dangerous.

July 22

Bruce Carey & Michael Brown

opened dome 9:00 p.m.

focused Ross camera on Arcturus

9:30 - looked at M13 - good night

Ross camera M17 7^m
M13 10^m 10:07 EDT - 10:17 EDT

Mike Brown & Steve York

Plus-X

M13 30 sec, 1 min, 2 min (?), 2 min,
3 min, 5 min

Jupiter 4:00 Am 1/2 1 thru 2 min

July 24 - Michael Brown - about 40 people
showed up for general observing - M13, M57,
double cluster, double double - (couldn't find M5)

July 25 Mike Brown + Steve York
Crystal clear skies and moonless, so we saw
lots of messier objects - M13, M57, M92, M3, M27

Cannot unlock RA \approx 3:00 AM
Close Dome 3:00 AM

July 27 ~~10:00~~ 10:00 Louises - RA Lock ~~is~~ fixed

July 27 - Mike Brown - Tip of cable
release is broken off & lodged in camera -
need new one

July 28 Steve York
10 - 12

Poor seeing patchy clouds
found shit up there
cleared cable release tip from
camera. still need new release.
circuit breaker blew twice on Dec unclamp

1 Aug 76 Peter Minkler dome opened 2145
the forward (thin) line parted, should be a
little heavier = nylon.
dome closed 2240

Mike Brown (and friend) - saw ϵ Lyrae
& M-13

2 Aug 0130 Dome Open Steve York
Patchy clouds, clearing as night progressed
Observed Jupiter + Pleiades
1 plate of same 35mm Jupiter
Closed dome 0500

1925 Dome opened Peter Minkler
eyed the moon, patchy clouds
2105 Dome closed

2230 Dome Open Steve York
Shot moon as it set
two visitors
Hi mag shot of Jupiter & 2 moons
close done 0240 Aug 3

3 Aug Cloudy. Observed what features of moon could be seen through haze; timed motion of moon across field \odot clock drive off. From \approx 8:30-9:30^{PM} EST. 2 visitors! (same ones as others?)

Last person left the observatory in a mess!
I've straightened everything out, naturally.

Jed Laderman

4 Aug 9:00 -
H. Ferguson Moon, M2, Comet D'Arrest (too faint)
Steve York Photograph of moon on Ross Camera

S. York Observed & photographed (35mm)
M1 M15 HVI 33 HVI 34
close dome 0310
 \approx 10 visitors over evening.

11 Aug Mike Brown Steve York & others
 \approx 15 visitors
clear skies but moon very bright
35mm photos of moon and M13
note: Declination circle is now off by $+3^\circ$

12 Aug 76 Mike Brown - opened up at 9:30 PM for public -
a few people stopped by and saw M13 and the moon. Did
some photography of the moon

16 Aug 76 - Mike Brown - open to public - clouded up at about
11:30.

Dec. seems to be off by about $2^{\circ}45'$

17 Aug - Jed Laderman - entered 8:00^P

17 Aug 76: Mike Brown - open to public, about 10 people
came - saw the Dumbell nebula; M-13, and
an unidentified open cluster in Sagittarius near the
lagoon. - also viewed Alberio

18 Aug '76: Jed Laderman & Mike Brown - dark, clear sky
M27, M13, Double Cluster - photographed the latter 2
M31, M32; Jupiter, Ring nebula, moon
~~did not~~ (just past last quarter)
On the moon, Earthshine was visible through
the scope.

We even saw two Perseids!

This is the clearest sky I've ever seen from this
location -
about 15 visitors.

The RA CLAMP does not work.
Setting Circle Lights are out.

19 Aug 76: Mike Brown - opened up at 9:00 To do
some more deep sky viewing. Started off
with M-12, a globular in Ophiuchus & I've never
seen before. - it's very spread out compared to M-13.
For some reason, this region of the sky is filled
with globulars.

NGC 6210 (Σ SN) in Hercules: A small, round, bright
planetary nebula - almost stellar in appearance

M-13 - same as usual

NGC 6572: A planetary which looks almost
exactly like 6210

M-57 - same as usual

about 25 visitors.

Joe Sadlerman - another 10+ visitors after Mike
left. Viewed M57, M13, Jupiter.
Photographed M31, M32.

20 Aug 76 Mike Brown - public viewing and I did some

23 Sept photography - N6C 6219 M13, M31

25 Sept D. Latham - demonstrate to 3 NS9 instructors

A. Peaceman - 4 sightseers

29 Sept Arthur. N.S. 9 grand tour.

30 Sept Phil Duffy NS.9 homework

Message Louis Castro Summerville
Adult Center

4 October Phil Duffy N.S. 9

Invite rigging & man. pens
Charlie Hughes - Repair Cross hairs light.

Alan - Plates + Darkroom

Phil - 35 mm data,

Dave - Engineers.

7 October Phil Duffy
Astro 8 & Nat. Sci 9
Opened 7:30 - 10:30

9 Oct. Phil Duffy 1st half of 2nd floor
11:30 - 12:30

~~11~~

??

Oct. 3-4 23:40-01:45 John Madcenty
Moon, Jupiter 35mm Photographs

DATE	TIME	PERSON	OBJECT	NUMBER OF VISITORS
10/10	02:15 06:20	J. Rosefield	gen-obs. Moon, Jup. Saturn	+ great set!!

Phil Doff

Oct. 10, '76

Casual observing w/ 5 friends

some opened
closed ~
9:35

Saw Jupiter, J

10 October 76

Mike Brown & Mark Le Doux - saw
the moon, Jupiter, and the Orion nebula,
Left 1 A.M. Also Rex Olive IV

11-20 Oct 76

John W. Mackenty

Moon + Jup - pics - TRI-X 120ASA
↓ ↓
f. plane Project - 12.5mm
w/ Hamish Norton, Paul deVegvar, Tony Cox

17 OCTOBER 1976

REX OLIVE IV AND PROGENY REX OLIVE V
OBSERVED WITH M.J. BROWN

October 12-13 1976

H.C. Ferguson looked for Comet d'Arrest
(didn't find it) Photographed Jupiter (prime focus and projected with

Oct 12s, 18 mm) Mark Liberson 7:15, various and
sundry orbital phenomena. 7:30 - H. C. Ferguson

1:00 Naz. Sci. 9; saw M31, Jupiter.
closed 10:30 Seeing fairly good.

Oct 15 Mark Livenson 12:30 Moon

John Boyce
Jim Soper

Oct 15 Phil Duffy 7:30 -
OPEN HOUSE

mostly cloudy

w/ Amy Printz + misc. friends

Saw M31 & more in 20 mm eyepiece
M57

closed 1:00 to see Young Translucent
(cloudy)

Oct 16 Mark Livenson 1:00 a.m. Jupiter

John Boyce
Marten Rodriguez

Closed 1:15 to get a drink and go home!

Alan Peaceman

OPEN HOUSE 7:45

23 visitors

looked at Jupiter, Andromeda,

Cassiopeia

RA circled off about 10h!

closed 12:00

18. October 1976. J. M. Vrtilek

poor seeing, looked only at Jupiter.

9:30-10:30 EDST.

21. October 1976 Balming -- ASTRO 8

Phil Duffy

dome opened 7:30

saw M57, M31, γ . cloudy 9:30

~~Alan P.A. circle is off & will be fixed soon.~~

~~However, you can use it meanwhile, because sidereal clock is off enough to compensate exactly.~~

22 October 1976 P. Duffy Open House

opened ~ 7:40 \approx 9:00

John W. Mackenty 8:50-12:20

Viewing - Jupiter, M-31 (Open House - 3 Visitors)

resolution poor



note especially: 1) a screw is missing on paddle case

2) at one point, drive circuit breaker went

John: paddle will be replaced soon

23 October P. Duffy
Open House, 7:45 - 11:10

Saw M15 M31 M57 with Shrin
23 October 11:55 - 1:50 Clair Parter and Aaron
Cossitt

observed Jupiter - seeing very bad - usually
2-3 out of 10 observed transit of
Europa and shadow

observed M31 Transparency not so good
M42 many lanes, other structure

~~23~~ 24 October 0115 - 0220 [Clouds high thin]

observed M31 w/ above entry (same as last night)

observed and photographed (35mm - 1200 ASA) ^{T-R-X} ^{axetone}

Orion Neb: f plane 5, 10, 15, 20, 30 sec

project 25mm 10, 20, 30, 60, 120

" " 12.5mm 5, 10, 20 - clouds.

Oct 26 8:55 - 9:30 Harry Ferguson

Nova Vulpeculae 1976 9:26 mag 6.7 observed

Note: Unable to remove 1 1/4" eyepiece holder
to insert wide angle eyepiece.

Jupiter fuzzy 4 moons
2.5mm. Greg Farrell

Oct 26, 1976

John Tonny

11:20 EDT

Oct 26

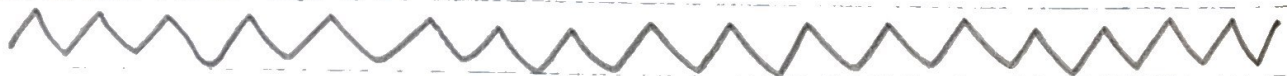
Alain Porter

4:10 UT

attempted light curve of new eclipsing binary θ , Orionis A (in the trapezium) extreme turbulence, sometimes smearing entire trapezium, even with 25mm eyepiece.

7:30 UT closing up

the eclipse was not observed - there was only a lot a scatter between mag 7.0 and 7.2. There had been an prediction of a possible eclipse tonight. θ 's period still has a couple of possible values. If tonight's observation is correct one of these periods is eliminated.



27 Oct 76 Wednesday

S.L. Baliunas

Open dome at 7 PM. Scattered clouds thickening.

Alan Peaceman

Moon, Jupiter

Too hazy for anything else

6 ~~7~~ Students from Astro 8)

6 NS 9 students

Dome closed 9:50

Oct 27, 1976 11:15 - 12:00

Harry Ferguson

Nova Vul. 1976 11:48 7.2

low on battery with par. seeing.

NOTE: R.A. remains locked even when release button is pressed

28 Oct 76 S.L. Baliunas, Phil Duffy
Haze. Open dome at 7 PM

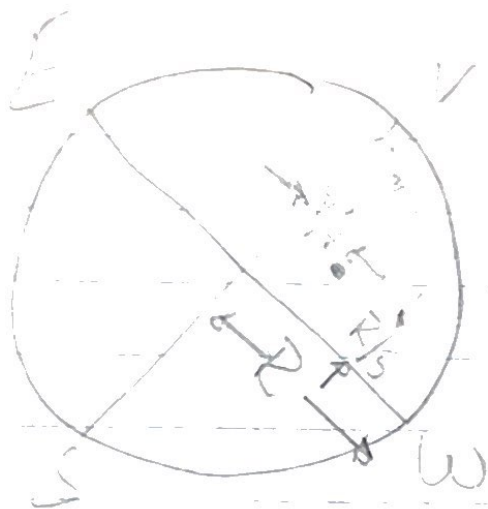
Harry Ferguson Nova Vul. 1976 8:33 7.2
 $\alpha 19^h 27^m$
 $\delta +20^{\circ} 21'$

Axis Alignment - tracking test

9mm eyepiece, drive off. Star on equator
drifts across field in 24 sec.
Illuminated eyepiece - drift time 1 min 15 sec

Put star (w center of cross hairs) on tracking
(drive on) Start: 9:31:45 EOT

Stop 10:44:45



S displacement $\approx \frac{1}{5} R$
 a " " " " $\approx \frac{1}{4} R$

Dome Closed 11:00 PM EDT ~~Errr!~~

10/29/76 P. Duffy OPEN HOUSE
 dome opened 7:45 closed 11:20
 saw M31, M57, M13, γ , Moon, Jupiter

about 30 visitors
 Alan Peckman

11/1/76 S. Odenwald & E. Egeborn with 3 NS9 students. Cloudy.
 did dynamos, demonstratory photographic techniques...
 7:15 \rightarrow