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1987

Nov. 18-19 Poyer. Comet Bradfield appears same as last week.
34° 70% Photo and visual work. Light SE wind, clear, but
shy very bright from city lights. Poor seeing.

Dec 26-27 J. Child & wife (Marcu) Arr'd 3pm
16° on skis. Beaut. Ful sunny day, plenty
of snow. Obs'y intact,

Observed JO Transit across southern belt as
great 'white' spot also moved across face.
Seeing fair → poor. Observed Comet Bradfield;
nice, but somewhat diminished by moon.
Changed area code of Bill GOLF's phone
from 714 → 619 on card in E. window.
Everything OK & working well. Thanks
for the Telrad - it works great!

Cleaned up a bit - stove & dishes
left 2pm 12/27

1988 Happy New Year
Jan. 20-21 Poyer alone. Shield in - road covered from
no wind 1 to 3 feet of snow 2½ hours trip. Lots of
80% 23°F snow blown into the dome, especially in track
from south around west side to NW. Cleaned
out as much as possible to avoid lots of water.
Photographed Comet Bradfield and NGC 2336.
Tried to do an Evans supernova in NGC 7606
but too low into SW sky glow. Did visual
work till midnight. All working OK, sure is
beautiful up here in the snow, but sky is
bright and transparency poor, seeing was average.
Should be a fast run out of here this bright morning.

Took me 1 hour 5 minutes!

Jan 23-24

36° 55%

J. & M. Child / Graeme Macdonald (Sydney)
 Beaut. Ful Weekend. Warm, Clear, Sunny
 Seeing: Fair to poor. Photography of
 moon & Jupiter.

*

Note: moved to let 30' to west,
 under tree. (Now helicopter proof!)

Feb. 10-11

LIGHT NE

WIND GUSTS

32°F 65%

Poyer. Hiked in - still much snow on road, but
 too patchy to ski. Observed comets Liller and Bradfield,
 both about 8.5 mag. Liller has fainter nucleus.
 Visual observations - seeing fair, transparency not
 too good, and sky very bright, could only get to
 about 15.5 mag. in dark spots of the sky.

Photographed N6C 4579 for supernova.
 Again rudely awakened at 7:25 A.M. by strong
 aftershock of Oct. 1 quake. My last circumpolar
 plate of N6C 2336 showed no field rotation,
 so I guess these quakes have not affected
 polar alignment, just my sleep!

Feb. 24-25

NO WIND

32°F 48%

Poyer. Hiked in. Did 13 visual estimates.
 Caught YZ Cassiopeiae rise from 11.9 to 11.0 in 6 hours.
 Supernova in N6C 4579 still up - about 14.8.
 Photographed nova Vulpecula 87 field - we have
 lost this guy - less than 15.5 visual.
 Good night, but transparency still not up to par.

March 16-17

NO WIND

20°F 60%

Poyer - drove in over last patches of snow - no
 problem, 7 visual estimates and 3 plates.
 Hv. Vul is still "lost", did another photo, but
 suspect it may be below 18 mag. Seeing good,
 transparency average. All systems working very well.

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March 23-24 Poyer. Did visuals in P.M. Photo of *Nova Vul 87*
 45% 36°F in A.M. - Last photo (3-17) showed it at
 WEST wind in P.M. about 16.0 and confirmed it at about 18.5 Feb. 25
 Calm in A.M. This A.M. it was less than 15.0 visually, should show
 on plate. (actually it was at 15.5 mag)

Saw 0.0 mag. object in the east about
 5° above horizon about 40' before sunrise. It moved
 a little SW - a satellite? Before I could
 re-operate scope it was too light! ↓

→ Planet Mercury!

April 6-7 Poyer. 15 estimates, mostly SUUMa type.
 45% 48°F Only got one up - AYLVR at 13.4 mag.
 some light wind *Nova Vul 87* at 15.2.

Good night with a few clouds, transparency very
 good - helped with last quarter moon in A.M.
 Scope is working best ever!

May 1 Stephenson, Drove in - last weeks snow has
 melted leaving many rocks on road, This
 should be the last snow of the season. Still
 cold temp. at 2 PM 55°F, wind gusting from
 the North West. Reason for visit to reattach
 the weather-strip on the bottom of dome.
 Did not stay the night.

May 7-8 Stephenson, Webb - *Nova Vulpeculae* approx. 14.0 mag
 100-85% 22°F Exact Estimate difficult because RES. Stars on
 "P" Chart have a gap between 11.4 and 14.4.
 Observing difficult because of scattered clouds
 blowing through the area.

5/11 Off here for an inspection.

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June 12-13. Ford + Goff obs'g variables, Estimates,
5 for each observer, all sanctuums. No wind,
sky ca. 0.9, temp. 62°F , seeing fair to
poor. Closed dome 11:30 PM PDST.

June 11-12. Ford + Belodan obs'g variables. Sky only
ca. 0.7, some wind from W., temp. $58^{\circ}-60^{\circ}$,
seeing poor. FD obs total: 3, all sanctuums
Closed dome 00:45 AM PDST June 12.

June 14-15. Ford + Goff, obs'g variables. Temp 62° ,
light clouds clearing OK. Seeing fair, sky
0.7-0.9. Obs'd by FD: 4 including 2
sanctuums. Stopped 11:05 PM PDST

June 15-16. Ford + Royer, obs'g variables. Temp.
 $60^{\circ}-54^{\circ}$, seeing poor to fair at end of run.
Some clouds, N., finally clearing OK, Estimates.
FD: 10 total w/7 sanctuums; Royer: 13 total.
FD stopped obs'g 2:30 AM PDST June 16; Royer
continued till dawn light ca. 4:15 AM PDST.

June 16-17 Ford + Goff + friend of Goff's from W/W
Opened dome 9:20 PM PDST. Some haze
+ thin clouds in spots. Temp 63° , light wind
gusts. Seeing poor. Telescope drive slipping,
repaired (3). Obs'd 2 vars, ~~the~~^{the} sanctuums
before clouds got too bad to continue, 11:30 PM
PDST.

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June 20-21. Ford and Royer. Obs'd var's until
1:30 AM June 21. Totals: 4 including
1 sanctum + Nov Oph 88. Royer photographed
after 2 AM until dawn light:

Slight wind, Temp. 57°, seeing pass. sky
fair to good. Humidity 38% Photographed Mr Oph
and Mr. And. (at about 17. ? mag.

June 29-30 Royer, ^{Penny Her.} Baker, ^{Jr.} Weber, ^{Scott} Garcia, ^{Famian} Vande Kreeke, Smith.
35% 60°F Full moon - still observed to 15.0 mag. Mr. Vul coming
some SW up - about 13.5. Very clear - seeing still fair only.
wind Cleared out gutters of W/W house.

July 6-7 Royer, ^{Loren} Grover, ^{Tim} Kulesza, ^{Kevin} Haller. Comet Liller, no tail
33% 58°F about 9th mag. Did variables till 1:00 A.M.
Transparency good, seeing fair.

July 12-13 Royer, Fred Milderhof S.V., Don Blandford, Ryan Seitz
30% 60°F Seeing good - but cloudy. Got up at 2:30 A.M. to
no wind photograph Mr. And. which is getting down into the 18's.
Saw Mercury, Venus, Mars (big S. pole cap) Jupiter, Saturn.

July 20-21 Royer and 4 boys - cf. Guest book. SE clouds
40% 70°F all night - did one And. Galaxy nova search plate
no wind in 25' morning break. Saw planets - Mars looking good
warm!

July 27-28 Royer and guests (see Guest book). Full moon. Did
40% 60°F visual of variables brighter than 15.0. Photographed
planets in A.M. sky - poor seeing. Mr. Vul still at
about 13th magnitude. (Mars shows a dust storm around Hellas)

Aug. 3-4 Royer, Padilla, Stevenson, Sorensen and guests. Did variables
37% 60°F and photographed planets. Broken clouds all night did not allow
no wind prime focus work with camera. Dust storm on Mars not

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evident - seeing good, and lots of detail on the planets.
Mr. Vul still about 13th mag.

Aug. 8-9 Royer and Fr. Fred Middendorf, S.D. Did
33% 52°F visual variables. Photographed North Polar Sequence
NO WIND for plate magnitude estimates. 2 plates of
And. Galaxy nova search. Seeing average. Mars
still growing, and S. cap shrinking.
Saw 5 Perseid meteors while guiding, one with train.
Saw 3 sporadics:

8/13/88 Off here for visuals, some wind after 10PM.

Aug. 17-18 This is probably the best view of Mars I have
28% 60°F had in a lifetime. Seeing was extremely good
NO WIND and the 18th will definitely beat the Lowell
Observatory 24" Refractor - Many thanks to
Father Royer for a superb evening -
Signed Thomas R. Cave F.R.A.S.

AUG. 17-18 THIS WAS A GREAT OPPORTUNITY FOR
ME - BETWEEN THE EXCEPTIONAL SEEING,
AN EXCEPTIONAL INSTRUMENT & THE
VERY CONSIDERATE HOSPITALITY OF
FATHER ROYER - & NOT FORGETTING
TOM DAVE WITH HIS KNOWLEDGE OF MARS.
ALL EVENING I WILL NEVER FORGET.
C. J. CHANGES, P.E.

Royer - did variables and photography -
beautiful night! I learned a lot about
Mars and the mountains of Mitchell from
Tom and Connie.

8/20/88 Off here with members of RAS, good night, Mars looked great! Seeing went local about 1 AM.

Aug. 23-24 Royer, Tom Cave and 4 boys. Observed Saturn in 40-60% early eve - then desert lightning storm moved in on us. 60°F Rain all night, but no local lightning.

Aug 23 Early evening Saturn superb until clouds closed in - a great deal of fine detail on the globe and the Keeler div and Encke div well seeing - seeing absolutely perfect up to two seconds at a time. - Thomas Cave

Aug. 30-31 Royer and Sharp brothers. Did variables, Saturn, 50% 58°F saw Enke's division, seeing good, but hazy after no wind week of thunderstorms. Best view of Mars yet, last remnant of Mt. of Mitchell still visible, detached from shrinking S pole cap.

NOTE → Rotation switch of cage motor developed a dead short in operation. Am bringing control box down for new switch, since no visible short on outside of component!

Sept 6-7 FR. Royer and Connie Chrones and Tom Cave 40% 58°F Observed from nitfall Saturn - Seeing so so for about two hours after dark - Royer ran Variables then all observed Mars and Royer made drawing, so did Cave showing area beyond Mars Terminus to East - Seeing amazing rated a 7-8 (Hc) - all retired for 3 HRS - Began again on Mars, Royer, Chrones and Cave made 2nd Mars drawing true dawn with seeing at 7-8 Views of Mars every bit as good as with 24" Lowell refractor - Tom Cave, Connie Chrones FR. Ron Royer.

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Sept. 14-15 Royer alone. Replaced broken window. Painted
NO WIND shutter hydraulics. Did variables in evening
35% 50°F. and Mars. Wow - seeing about 8
Lots of detail - made a drawing.

9/16/88 Goff here w/ family to see planets, all
were thrilled!

Sept 24-25 Padilla, Sorenson, Stephenson et al. Mars observing.
Poor to fair seeing, windy. Video prime focus photography of
Mars, Jupiter & Saturn.

Sept. 27-28 Royer, Tom Cave, Connie Chronos. Variables and
35% 46°F Mars. Seeing started out good, and got worse through
SE breeze the night. Looked in vain for Comet Machholz 88.
I saw it going in, and it was strong. Is this
another one that did not make perihelion passage?

Sept 28 Stephenson, Vernon, McCoy - Visual of
53°F 35% Saturn, Mars, M31, M27, M3 ECT. Seeing good
Very little wind closed up at 10:45 PM PST

Sept 30-Oct 1 Padilla, Sorenson, Stephenson, Rafferty. Mars observing all
night. Video setup with camera at prime focus, video procs
printer & vcr's recording images. Amazing detail visible
on monitor during periods of good seeing! Seeing variable
fair to good, no wind & temp in 50's.

Oct. 5-6 A first for Ford Observatory or anywhere
35% 45° else, Steve Padilla brought a new ^{electronic} CCD camera
Next wind IV type and we watched Mars on the 15"
Monitor for 2 1/2 HRS - We saw at least 5 ^{distinct} features
as much on Mars as Visually visible, We
used same on Jupiter without any gain. On
Mars just N. of Sinus Homer two ^{distinct} Carote
ending in N. Blesat at two Oases. ^{Tom Cave}
Connie Chronos
FR. Roy R. R. R.

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10/12-13/88 FR Royer took two ^{10M} ^{HR} Exposures of And. Neb. and 1 ^{10M} Comet Machholz. Seeing Temp 45° not good - but observed Mars at 1100 PM to 1 PM - Seeing 4-7 μ s Fracture of Secs. Each Observer made Mars drawing. FR Royer, C. Chown & TR Care

10/20-21/88 FA ROYER TOOK TWO 10 MIN PLATES 24 35% OF MACHOLTZ. AT ~ 3:00 A.M. TOOK AN TEMP 46 HOUR EXPOSURE OF ANDROMEDA. AT ~ 10:30 P.M. STEVE PADILLA HAD COMPLETED SET-UP OF VIDEO EQUIPMENT FOR MARS & JUPITER OBSERVATIONS. HAD RELATIVELY GOOD VIEWS ON TWO MONITERS. JOHN STEVENSON RAN CABLE & PLACED ONE MONITOR DOWN STAIRS IN LIVING QUARTERS (MAKES FOR REAL COMFORTABLE VIEWING). AFTER ~ 3 HRS OF MARS WE WENT TO JUPITER - AFTER CKG FOCUSING ON SATELLITES OBS. MUCH DETAILS ON BELTS. OBS SEVERAL SOUTHERN TEMPERATE BELTS. NEAR END OF VIEWING THE RED SPOT CAME INTO VIEW.

PROCEDURE PRIOR TO VIEWING WITH VIDEO CAMERA, ENLARGER & MONITOR - FOCUSING ON BRIGHT STAR IS A MUST. WE MAY HAVE RECEIVED SHARPER IMAGES AT START. WHEN WE DID FINALLY CHECK ON A STAR THE IMAGE WAS ENLARGED & OUT OF FOCUS. IT WAS ALSO MULTIPLE (FOUR). IT IS SUGGESTED THAT BEING MULTIPLE IS DUE TO 'SEEING'. WHEN BROUGHT INTO FOCUS THE SEPARATE IMAGES MERGED INTO ONE. HOWEVER.

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'SEEING'
FOR MOST OF EVENING THE WAS 7 TO 8
PLUS ON H.S. EVERYONE WAS ENTHUSIASTIC
ABOUT THE GENERAL PERFORMANCE.

JOHN STEVENSON DID YERMAN SERVICE
ON ELECTRONIC REPAIR OF ROTATING TUBE
CAGE ETC.

C CHRONES, FR ROYER, T CARE, S PADILLA
& J STEVENSON.

(MUCH PROFESSIONAL TALENT EXHIBITED
THROUGHOUT EVENING)

- Oct 21-22 Padilla, Sorensen & Stephenson. Video recording Mars all night. Seeing very good to excellent at times. Noticed split in the polar cap - quite evident during moments of good seeing. Fascinating detail visible on ^{video} monitors set up upstairs & downstairs. Clear & calm all night.
- Oct 22-23 Padilla & Sorensen. Mars video recording again. Some light cirrus in early evening. Seeing not as good as last night, but adequate for recording images. Split in polar cap visible, even more apparent tonight.
- Oct 29-30 Padilla, Sorensen & Stephenson. Visual observing by
RH = 60%
Temp 40° Stephenson & friends in early evening. Later, setup for Mars video recording. Seeing fair to poor at times. High humidity no wind. High cirrus moved in about midnight & obscured view of Mars.
- NOV 2
H=35
T=40 Cloudy night early; thin clouds obscured Mars seeing. Bad to good at seconds. Sky cleared completely 2AM - Observed Jupiter and did adjusting for Better Collimation - John Stevenson, Fr Royer, Tom Care, Connie Chrones

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11/9-10 Seeing Bad Havaad Scale 3-6 - Mostly 3 or 4
 H 55%
 T 38°
 However good enough for Drawings of Mars, 2 Plates
 of M 31 nova search plates, exp each 1/2 Hour
 Observed too 11:15 - seeing so bad at this
 time seeing fell of to 2-3 - so we ceased
 observing, FR. R. Royer, Connie Chomey, TR Cave

Nov 12-13 Padilla & Sorensen. Tested out Rich's mini video
 H 45%
 Temp 52-37°
 camera on refractor for guiding. Worked out
 quite well. Also used intensifier. This method
 allows for effortless guiding on monitor. All that's
 needed now is to get a paddle wired up for downstairs!
 Seeing - fair to poor. Windy. Clear all night

Nov. 16-17 Royer, Jack Hunter, Phil Barclay. Installed
 30°F 45% ELECTRIC TOILET!
 WINDY Ready for use, but please follow
 CLEAR instructions and allow to burn out
 SOME SNOW before shutting off power.
 on ground We checked out polarity and grounding of all outlets.
 Did variables, one plate of Andromeda
 Galaxy. Seeing too poor for Mars.

Nov 30-
 DEC 1 FR. Royer and TOM CAVE observed Mars
 and FR. Royer confirmed new Black Marking
 on Mars Running from W. long on Mars from
 approx. 40° long to approx 160° long.
 Marking was est. to be in 70° ~~long~~
 80° Latitude - being at long 40° was a point
 and running as a thickening Trapezoid, perhaps 15°
 wide in long W. 120° to perhaps as much as
 160°. FR Royer Photograph two exposures of
 M31 on the Nova Search Program and observed
 6-8 Variables

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Dec 3-4 Stephenson, Sorensen & Padilla. Stephenson wired up hand paddle for downstairs in afternoon. Set up mini-video camera on 18" videotaped Mars. Seeing fair. Also setup on Jupiter, M42, M31 and the Double Cluster. Paddle worked great downstairs for guiding in comfort!

Jan 14-15 Boyer, Tom Cave, Connie Chrones, Barrett Duff.
37°F 47% Broken sky. Mars, but poor seeing. Did
SW wind visual variables. U Gem up. Started snowing
at 7:00 A.M. - We left in a hurry - no problem
getting out - but steep parts of road slippery.

Jan 10-11 Hello/good bye
J. Child here for asteroid photos, but
clouded over 20 min after I got here!
Storm on the way in, so I will ski back
out. All seems ok here, plenty of snow!
Toilet is great!

Jan 11-12 J. Child here again. Brrr! Cold but beautiful
night. Good seeing, but not very dark. Asteroid
~~10°F~~ confirmation photos for E. Helin. Telescope is
8°F working well and all ok. Some snow interfering
with dome rotation. Surprisingly little wind -
very calm here, but 70 mph winds at Outatio!

Jan 14-15 Jack & Maren Child here for asteroid & comet
16° photog. for E. Helin. Good night, except for gft man.
65% Several photos of new ~~asteroid~~ asteroid for Ulo, plus
photo of 1989 Helin-Roman 241. Everything in perfect
working order. Have really enjoyed being here these three
nights. This is a special place and has brought
me much peace and tranquility. Note: toilet disturbs
seeing when dome is facing south.