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1973

OCT. 26-27 Bilodran and Jones: Times: 8:00 P.M. to 2:00 A.M. (PST);
 Temp.: 49° - 42° ; Wind: slight breezes all night;
 Transparency: good⁺; Seeing: good overhead, to poor
 in the South and West. Jones = 14 estimates (12 sanctums);
 Bilodran = 16 estimates (11 sanctums).

OCT. 27-28 Bilodran, Jones & Hurts. Times: 6:00 PM - 5:40 AM (PST);
 Temp: 56° - 46° ; Wind: lites breezes all night;
 Transparency: good; Seeing: good. Sky gloom from L.A.
 was quite bad. In the morning the ~~light~~ Zodiacal
 light was quite strong. Hurts used a $12\frac{1}{2}$ " f/5
 reflector. Bilodran & Jones used 18".; 46 estimates,
 (35 sanctums).

1974

Feb. 12-13 R. Poyer astrophotograph run - 2 one hour exposures
 1974 till moon rose + high cirrus developed. All telescope
 functions worked perfectly. Assisted by Janice Kent,
 Citrus College optical dept head. Also by Mike Macario,
 Steve Padilla, and Lee Trigon.

Found no damage to observatory after heavy snow.
 A few inches of patchy snow on ground. No snow on
 observatory. Road well cleared. Only problem was
 strong winds + clouds in early evening. 30° F.

Feb. 18-19 Ronald Poyer, Mike Macario, Steve Padilla
 1974 and Lee Trigon - Astrophotography + visual
 variable star estimates through broken clouds.
 Photographed Leo cluster of galaxies. Could not
 work S.W. sky due to wind.
 All guiding functions working perfectly.

April 2-3 Ronald Poyer, Mike Macario, Steve Padilla
 1974 and Lee Trigon - Photos of Comet Bradfield
 in NW after sunset. Clear skies - some scattered
 cirrus, light wind. Visual observation of

1974

variables. Photography again through Boye
astrophotograph after moon set in early morning.

April 17
1974

Royer + Padilla set up for astrophotograph run.
Clouds and moderate wind developed 2 hours
before sunset. No astrophotography possible due
to cloudy skies and gusty winds.

April 18-19
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Mike Marcorio + Lee Trujon joined Royer + Padilla
today. Clouds set in again by nightfall with
very light snow. Cleared by 1:00 A.M.
and observed variables. Did one photo
run before dawn. Moderately heavy wind,
excellent transparency.

April 19-20
74

Royer - Padilla - Marcorio - Trujon.
Photos of Comet Bradfield. Guided with refractor
to obtain 18" prime focus photo, plus
astrophotograph + 35 mm. camera photos.
Tried blue + yellow and color emulsions
to verify previous shots on April 2 that
there is little gas tail.
Continued through night with photos +
visual observations. Clear all night, almost
no wind!

April 20-21

Cragg & Bob Jones brought up PEP system for trial.
Spent 1st half of night identifying and running down
problems associated therewith, but looks very encouraging.
Did some visual VS work afterward for ~24 hours.
Got 11 estimates; 6 were sanctioned. Seeing poor, transparent
fair, scattered city light bad. Faintest star observed was
UZ Boo at 16.2. Looked like overhead limit ~17.0.

April 21-
22

Cragg
Worked visual VS from dusk to dawn. Got 38 in Orion
Nebula waiting for it to get dark! Little wind,
temp fairly mild (40's), seeing variable (1-3).

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- April 21-22 (cont'd) transparency good. Slip circle working unusually well. Mechanics working fine. Bottom extension of platform ladder is "bad news". An excellent run -
 Total estimates (including Orion Neb) = 140
 ✓ sanctums = 65
 (9 ✓ in the 16's)
 Observatory found in excellent shape
 Cirrus appearing at dawn
- April 27 Bilodeau, Jones, and Guest: (3:00 - 5:30 PST)
 brought up PEP EQUIPMENT, checked out observatory, and effected emergency repairs to platform ladder. LADDER is in bad shape and needs to be partially (mostly?) rebuilt.
- April 27 Bilodeau, Jones, and Guest: 7:30 PST opened dome. Light wind - Temp 45°F. High level of moisture in air made sky very light (moon 1st ¼). Seeing poor. Observed messier objects until ~10:30 when sky improved & started warming up PEP equipment. began using PEP EQUIPMENT ~12:15 seeing fair - TEMP 39°F. finished PEP test run ~1:00 and closed up. Having problems with PEP (apparent "fatigue effects", high noise level, and filter problems).
- April 28 Bilodeau, Jones, and Guest: returned to observatory @ 11:30 PST cleaned up observing room & stowed PEP EQUIPMENT. Observatory in excellent shape. left 12:30.

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May 18 3-4:30 PM PDST, Carpenter, Bilodeau, Ford.
Checked out bldg. + telescope for night's work. All
OK.

May 18 Ford, Bilodeau. Visual obs'g w/ 18", 9:15 PM to
01:30 AM PDST May 19. Wind bad, and temp.
unusually cold, +22°F. at end of obs'g, w/ frost
on equipment. Total est's = FD, 11; Bilodeau
12. Intermittent clouds, poor seeing.

May 20 Ford. Low-lying clouds S., otherwise trans-
parency OK, seeing fair. Obs'g 11 PM to
03:30 AM PDST May 21, temp. 48°-40°,
no wind. Total est's = 21, w/ 17 sanctuums.
Trouble w/ obs'g ladder.

May 21 Fr. Royer, Ford, Steve Padilla. 3-5 PM
PDST, repaired obs'g ladder, installed new
switch buttons (pushers) on slow motion +
slowing controls box. All working OK.

May 21 Fr. Royer, Ford, Steve Padilla. 9:40 PM to
02:55 AM PDST May 22, visual obs'g.
Seeing OK, transparency only fair. Temp. 52°-
41°, no wind. FD total est's = 14 including
8 sanctuums. Checked out 122714 Ab Com;
now not seen (< 17.3 sp). All equipment on
telescope working OK, Dome OK.

May 22 Carpenter, Hagg, Ford 10:05 - 10:45 PM
PDST, when clouds stopped all obs'g. Able to make
only two estimates (X Leo + RS Leo),
before closing up.

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- May 23 Cragg, Ford. Good transparency but poor seeing, following rain shower in afternoon. Temp. 48° - 44° . Obs'g from 10:30 PM PDST to 03:40 AM PDST May 24. FD est's with 18" total = 22, including 18 sanctums. All equipment working in good shape.
- May 24 Ford. Obs'g 11:45 PM to 03:37 AM PDST May 25. Total est's = 24, including 6 sanctums. Temp. 55° - 52° . Transparency fair, seeing fair.
- May 25 Belodeau, Ford, Jones. Obs'g 11:30 PM PDST to 03:30 AM PDST May 26. FD total est's = 11 including 4 sanctums. Temp. 64° - 60° , transp. + seeing fair.
- May 26 Belodeau, Ford. Obs'g 11:15 PM PDST to 02:15 AM PDST May 27. Total FD est's = 11 including 3 sanctums. Temp 66° , light wind blowing, transp. + seeing fair.
- June 3 Carpenter, Ford, R. Annal. FULL moon. Obs'd only 3 vars., W Leo X Leo + R Com. Stopped obs'g moonlite, 11:15 PM PDST. Some haze in sky \rightarrow a poor night!, light wind, temp ca. 60° .
- June 7 Ford. Obs'g from dusk until moonrise ca. 11 PM PDST. Total est's = 15 including 13 sanctums. Wind gusts, temp. 62° , seeing poor.

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June 9

Ford, Obs'g from dusk until 11:55 PM PDST, (shortly after moonrise). Temp 68°-62°. Total est's = 18, of which 11 sanctums. No wind, transp. + seeing fair. Equipment all OK.

June 15-16

BILODEAU & JONES: 8:00 PM TO 12:40 AM P.S.T.
MOON: ☉; TRANSPARENCY: 7-8; SEEING: 3-4+
TEMP: 64°-60°; WIND: LIGHT TO MODERATE WITH GUSTS TO 10-15 MPH.

JONES: 10 ~~EST~~ ESTIMATES (5 SANCTUMS);

BILODEAU: 16 ESTIMATES (7 SANCTUMS); rotation
Encountered no problems, but the dome ^{rotation} switch should be fixed.

Checked PEP equipment for source of high dark current. Removed 1P21 from socket and applied high voltage; when amplifier gain was adjusted for normal use no dark current was seen—even when highest sensitivity settings were used. When 1P21 is in socket the meter reads approx. 1/2 scale at amplifier setting of +10 mag. another 1P21 was also tried (#3) and the meter read full scale at the same settings. Will try cleaning 1P21 for next test. No noise test was made. WARNING: Tests showed that changing the high voltage setting will sometimes induce a static charge on the signal lead which would ruin readings—this charge must be drained off.

June 22

Gerry, Kathleen & Brigitte Biferman; Bob Jones and Janet Shaman: Arrived at approx. 3:00 for Astral inspection. Found bolt lock unlocked. ~~Out~~ Aside from that, all is o.k.

June 18-19

— Royer - Incaro - Padilla, Photo session, M 13 area; Ring nebula, Lumbell, and M 31. — all night work.

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June 22-23 Bilodeau & Jones: 8:00 PM - 3: AM (PST);
 MOON: WAXING CRESC.; TRANSPARENCY: 6-7;
 SEEING: 3-4"; TEMP: 74°-64°; WIND: LIGHT
 BREEZE ALL NIGHT.
 JONES: 17 ESTIMATES (11 SANCTUMS)
 BILODEAU: 21 ESTIMATES (13 SANCTUMS)
 DID SOME CHART CHECKING (163414 AS HER)
 (182916 DS HER)
 DIMMER ON HALL LIGHT IS BAD. WILL LOOK INTO THIS
 AT A FUTURE DATE. ALSO, WILL HAVE TO ADJUST THE
 CAM-STOP ON OVERHEAD SHUTTER SO THAT IT WILL
 CLOSE & SEE PROPERLY.
 INVADED BY HUNDREDS (MILLIONS?) OF MOTHS.
 ALL MECHANICAL EQUIPMENT (ELECTRIC) FUNCTIONING
 NORMALLY).

June
23-24

Cragg ran variables from dusk to dawn.
 Variable SW wind, seeing fairly good, transparency
 quite good, temp 70-65. System worked well
 except ship circle gave a little more trouble than
 usual. Obtained 70 estimates of which 53 were
 sanctum, 7 of which were in the 17's. Waxing
 crescent moon set around 9:40.

June 25

Clauke - fixed safety device on cord to
 hydraulic system so as to prevent wires
 from being pulled out - Do not separate
 Safety plug + Socket!

July 20

Bilodeau and Jones 9:00 → 12:00 (PST)
 Light wind; Temp 66°-64°, Seeing poor,
 Transparency poor. Terminated observations
 due to clouds. 10 observations - six sanctum.

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July 21-22
Sunday

Bill Williams worked through the night outside with portable 10" and his dry-ice camera. Fair transparency with constant threat of clouds to the south + lightning. Conditions improved toward morning.

Ron Royce + Bob Jones used 18" + astrogaph for long color photos in Milky Way. Guiding with refractor was easy.

Jupiter was observed at dawn. Excellent view showed red-spot somewhat pointed at both major axis ends. δ . The zone it was in was pure white. The SEB was reddish brown and the NEB was purplish. Many features between the equatorial belts. Many subtle belts in northern hemisphere.

July 22
Monday

Royce + Parker Box. Thunder + lightning! Shutter leaks slightly on top, $\frac{1}{2}$ way down on port side copiously, and at the division moderately. Also S.W. corner over desk leaks, but not through shinned area.

Work detail during day. Painted iron angle. Repaired leaks over desk area on roof.

July 23
Tuesday

Clouds - No observing.

July 24-25
Wed.

Clouds early evening, but cleared completely by 10:00 P.M. Some Polaroid "3000" test shots till moon set. 10 min. exposure on astrogaph gets 11th mag.

Long color exposures through the night. All guiding systems working well.

No wind so I worked Sagittarius area.

R. Royce

70°-66° F

50 St. Plane crashed at Big Pine Station as observers were arriving on Mountain.

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July 25 Royer, Padilla, Macario, Frigon, M. Jones & Sorenson
Thursday Used 18" for prime focus photography along with Royer astrogaph. Did 1 hour exposure on color film in Sagittarius area & 1/2 hour exposure of M11. Also photographed Jupiter at prime focus using eyepiece projection. Evening was clear with no wind, seeing was quite good.

July 26-27 Royer, Padilla, Macario, Frigon, Mike Jones
Friday of Corpus Christi, Texas, and Rich Sorenson of Long Beach, Calif. assisted by Pan + Joe Bowers and Dave Lopez.

Lunar Photography - prime focus
Polaroid on astrogaph - 20 min. exposures get to 12^{xx} mag.

Guiding on refractor at 1500x guides to limit of functions. Functions all working perfectly. Dec. circle allen screw found and adjusted by the Texan.

with 1 hr. Color photo of North American nebula ~~prime focus~~ astrogaph.

"Found green horse tail + painted the eyes"
R. Royer

August 20-21
174 Royer + Padilla Color + Polaroid photos all night. Transparency excellent no wind! Temp. 55° F. Adapted William's Cold camera to 18". Will use next session.

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- SEPT 7-8 Bilodeau and Jones, arrived 9:30 PST (PM) left 3:00 PST. light wind, worked exclusively with PEP equipment. Obtained best runs to date but had problems with photometer head. Guiding must be done with guide scope - not eyepiece on ^{PEP} head; Diaphragms are not aligned to well and extreme care must be taken in centering star.
- SEPT 8 Bilodeau and Jones arrived 3:30 P.M. PST. light rain. Checked building and made sure equipment was secure and covered. left 4:30 P.M.
- Sept 8 Bilodeau and Jones arrived 9:45 P.M. PST Temp 70°F; worked on PEP equipment only. Guiding is extremely critical must use 4 mm or equivalent on guide scope. STOPS are not aligned with crosshairs in pep head very well! Head needs work badly! Had to fight it all night. Closed up at 11:31 due to sheer frustration.
- Sept. 14-15 Bilodeau, Jones & Guests from Riverside Astronomical Society. Bilodeau arrived 4:30 P.M. PST. Jones arrived 5:00 P.M., PST. Guests arrived from 5:00 P.M. to 7:00 P.M., P.S.T. Guests set up telescopes around the area for viewing and astrophotography. Opened observatory around 6:50 P.M., P.S.T. Viewed Jupiter & Mercur objects for an hour or two with guests. From 8:00 P.M. to around 11:30 P.M., pst. observed variables but due to pedestrian traffic and lights not much was accomplished. Viewed Mercur objects and Jupiter with guests to around 2:00 a.m. pst.

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Sept. 14-15 (cont.) closed up shop around 3:00 a.m., P.S.T.
Last guest left at sunrise.
Temp: $62^{\circ} - 50^{\circ}$; Wind: Light breeze at
in early evening to nothing. Seeing: fair in
early and best around midnight. Transparency
fair, sky very bright - not much contrast.

Sept. 15 Bilodan & Jones arrived 11:45 P.M., P.S.T.
Checked out area and bldg. everything O.K.

Sept. 17-18 1974 Royer - Padilla - Frigon. Weather clear
no wind $70 - 60^{\circ}$ F. Used William's
dry ice camera on 18" on Corona
Australis nebula, M 17 in Sagittarius,
M 42. Worked well, but film awkward
to handle. Very slow working - time saved
on exposure wasted handling film.
Tried color polaroid - too slow.
Polaroid 3000 B+W gets to 13.0
mag. in 15 min. Good deal! Recorded
half dozen variables in Delphinus in
15 min.

Sky seemed unusually bright.
Polaroid fogged out completely in
low S.W. on 30 min. exposure.

Sept 20-21 Cragg used telescope all night for visual
variable star work. Seeing variable,
transparency good all night. Obtained 73
estimates including 45 sanctuaries. Bad
finding problems during last 1/2 of night.
5" guide scope is a real hazard and
nuisance for visual work - a hazard
with the platform and creates a "blind
zone" in the NW and SE for visual work.
Suggest it be removed from telescope and

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Sept

20-21

(cont'd)

time any visual work is anticipated. Arrived too late to do it safely this time.

Sept. 24
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Royer + Padilla. Visual checking of unusual green object ^{2nd mag.} on July color photos. 11th mag. object in its place. Perhaps mag. variable. Will check other photos. Also checked variables previously photographed. Quit early due to broken clouds.

In afternoon used silicon rubber cement to seal leaks in shutter. Hope we got them all! Also adjusted closing cam. It is OK now.

OCT 15-16
74

Padilla, Trigon, Royer. Astrograph + prime focus photos of 4 new variable star fields for AAVSO data.

AP Peg, BH Cep, AC Aur, AH, AK, AG MON
TEMP 54°F intermittent light wind.
Leaving fair. Some high cirrus to south.
Slow gear came loose of shaft. In locking down cage RA guiding was improved. Productive night!
Did Polaris on SV Tauri field for photo-visual check.
" " on 3C 120, (BW TAU).

OCT 19-20
74

R. Jones arrived 6:00 PM PST. Sky cloudy all day but showed signs of clearing up. Unfortunately, by 9:00 PM sky was completely clouded over. Temperature 60°F no wind and no observations. Left at 9:30 PM

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Nov. 8-9
1974

Ford - Padilla - Royer. Visual work on variables early evening. Clear - windless - high-level NE wind made poor seeing. 38° F.

1 hour Astrophot color photo of Orion nebula till moon rose at 2:00 A.M. Unusually good guiding control by wedging slew cage.

Nov. 9-10

Bilodeau, Jones, Ford. Visual estimating vars. Total est's = 12 per observer. Trouble with slipping of R.A. set dial, following repairs to leather drive belt made by Royer. Seeing fair, transparency good. Closed down 12 midnight PST.

Nov. 10

2:30 - 3:30 P.M. Carpenter, Bilodeau, Jones, Ford. Minor adjustment fixed R.A. set dial; repairs to set screw on drive motor cage controlling slewing motion (Carpenter).

Nov. 11

Ford, Carpenter. Poor sky, hazy spots. Obs'd 7 vars., including N Per 74 from preliminary sketch. Closed up 00:15 AM PST Nov. 12.

Nov. 12

Ford, Carpenter, Royer, Padilla. Seeing good - no wind. 59° F. High cirrus. Visual estimate of 6 variables. Cirrus was out at 11:00 P.M.

Nov. 14

Ford, Carpenter. Seeing poor, temp. 53° - mild. Total 16 est's (FD), of which 9 sanctums. Closed up 00:50 AM PST Nov. 15.

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Nov. 17 Ford, Carpenter, B. Jones. Crescent moon, setting. Temp. 44° . Seeing + transp'y fair. Total = 18 est's (FD) 11 of which sanctums. Closed up 00:40 PST Nov. 18.

Nov. 18 Ford, Carpenter. Seeing + transp'y good. Light wind, temp. 46° . Total est's = 10, including 7 sanctums. Stopped obs'y 01:25 AM PST Nov. 19.

Nov. 19 Ford, Rayer, Pacilla. Poor sky, haze in spots. Crescent moon, setting. Temp. 46° . Total = 12 est's, incl'g 5 sanctums. Stopped at 00:30 PST Nov. 20.

Nov. 21 Ford, Hagg, Halvorsen (1st time). 1st qtr moon, setting. Temp. 32° , light wind. Sky transp'y + seeing fair. Total = 7 est's (FD) incl'g 5 sanctums. Closed up 2:00 AM PST Nov. 23.

NOV 23 FORD, BILLOEAU, JONES. 1ST qtr moon +, Temp $\sim 40^{\circ}$, light wind. worked with PEP equipment from approx. 11:00 \rightarrow 3:00 AM. Determined proper combination of weights to balance telescope with Guide scope and PEP equip. Observed comp stars of known brightness to determine operating characteristics of PEP. $8^m.4$ star in field of S Ori could drive chart recorder off scale while $12^m.8$ star in field of UY CMA yielded approx. 1" deflection(s). noise level good (may be temperature sensitive). Amplifier zero must be adjusted after each change in settings. Slew GEAR seems to be slipping again. Instructions for balancing scope left with reticle eyepiece.