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JAN. 19

BILODEAU &amp; JONES: Arrived 11:00 A.M. P.S.T.

Sky clear, no wind, temp. inside Jones 52°.

Road up to obsy. fairly clear, although some caution advisable.

Outside of building in good condition. North wall has several dents (may have been caused by wind throwing rocks or ?).

Inside of building in good condition. Dome has not leaked, etc.

Closing down 11:30 A.M. P.S.T.

MAR 2

ROYER, MARCARIO, PADILLA, FRIGON &amp; SORENSEN

arrived 12:30 AM. Road iced over in places.

Clear with moderate wind. Got 6 estimates with gibbous moon - seeing fair. Building in good condition. Can't remove key from dead-bolt lock when unlocked - had to leave key in inside of lock to close door.

Previous visitors to dome didn't clean up on empty trash.

March 4

Royer, Padilla, Marcario. Set up 4x5 camera on 18". Storm moving in. Left at 2:30 A.M. in snowstorm.

April 4

Marcario, Padilla; arrived 6:30 P.D.S.T.

blowing fog from SW. Open at 9:00 temp inside +25°F. Closed at 10:30 due to blowing fog. Inside temps +21°F. Frost forming inside observatory dome. Observed U Cit at  $\approx 10.6$  to 10.8 - Only variables observed before fog blew in. Building in good conditions. SW wind  $\approx 30$  to 40 M.P.H. Seeing very poor.

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April 5 Marcano & Padilla. Cloudy all day & most of the night. No observing. Received approximately 2-3 inches of snow during night. (2' to 3' wind waves of snow on observatory road)!!

MAY 3 Bilodeau and Jones: ARRIVED 5:30 ~~PM~~ P.M. PST Strong wind blowing with severe gusts, temp approx 42°. Found deadbolt lock completely jammed with key unable to lock or unlock. We disassembled the lock and repaired it. Lock now works better than ever. Left at 6:00 PM

MAY 4 Bilodeau and Jones: Did not return to observe may 3 because of high winds. RETURNED may 4 to pick up DC amplifier for PEP. ARRIVED 1:00 PM PST - light to moderate wind from SW temp 46°. Checked lock in store room and tightened. left at 1:30 P.M.

May 16-17 Cragg & Steffey worked telescope on variables from 9 to 3<sup>30</sup>. Some clouds early, breaking off for most of night. More fast moving stuff in at 3<sup>30</sup>. Seeing very poor except nearly overhead; transparency fairly good; 5-day moon; wind not too bad. Some 18 estimates. Introducing Steffey to the system.

May 17 Cloudy, looks like no observing tonight for Cragg & Philip Steffey - leaving at 6 PM. Bought small red bulbs & some hand soap for observatory supply.

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MAY 24

Bilodeau and Jones. arrived 8:00 PST to observe lunar eclipse. moderate wind with mild gusts. temp  $54^{\circ}$ . Seeing good with good transparency. Unfortunately, we were not able to photograph eclipse as planned due to inability to reach prime focus with the adapter here. Surface detail of moon was clearly visible throughout totality. left at 12:15

May 31- June 1 Padilla & Sorenson. Visual observing of variable stars - 6 estimates made. Transparency fair despite some cirrus clouds in early evening. Light wind only in early eve. Rest of night - calm. Temperature -  $58^{\circ}$  F. also made 1 lunar occultation timing. Did lunar photography using eyepiece projection.

June 1-2 Padilla & Sorenson. Did astrophotography and variable star observing. Transparency and seeing good. Light wind in early evening. Temperature  $60^{\circ}$ - $56^{\circ}$ .

June 3 Royer, Padilla, Marcaro & guest - Hale Observatories astronomer, Charles Kowal. arrived 7:30 pm. Mr. Kowal examined electrical system and guiding controls as he is building an auto-guider system which will be used on the 18". First trial photograph made at prime focus with Claude Carpenter's modified camera. 10 min. exposure made on R Cr B field on Polaroid film. Results very successful and promising! Stars recorded to at least 15.5! P.S. Who left the same

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June 5 Carpenter + Ford. Some wind, seeing poor. Opened up ca. 10 PM PDST. Total est's made = 18 (FD), including 9 sanctums, w/ 165631 RV Her est'd at ~16360 at end of obs'g period when seeing had improved, wind decreased. Closed up 2:30 AM PDST June 6. Temp. 59° in dome.

June 6 Carpenter, Ford, Steffey + Padilla, Manaricos + 4 visitors. Four est's made before P. M. + visitors left, ca. 1 AM. Some trouble with RA setting circle; unable to locate two fields. Total est's made by Ford + Steffey = 9 ea.; by Carpenter = 4. Closed up 3:15 AM PDST June 7. Temp. 58° in dome. Decreasing wind, poor to fair seeing.

June 7 Ford, Bilodeau, Steffey. Opened up ca. 9:30 PM PDST. Very windy, poor seeing, temp ~~62°~~ 58°. Obs'd: FD 11 est's; Bilodeau 1; Steffey 1; FD on 18" only, others also using binocs. Total sanctum est's = 3. Some troubles w/ RA setting circle; more trouble in locating fields. Clouds moved in ca. 2:30 AM PDST June 8, closed up 2:45 AM.

June 8 Ford, Bilodeau. Started 9:15 PM PDST. No wind, temp 64° - very comfortable weather for observing. Seeing variable, never really good. Obs'rs: FD 22 est's, including 13 sanctums; Bilodeau 23 est's, two w/ binocs. Light wind near closing time 03:12 AM PDST June 9.

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June 9 Ford, Bilodeau. Opened up 10 PM PDST. Good transparency, fair to good seeing, light wind increasing but never troublesome. Temp  $64^{\circ}$ - $58^{\circ}$ .  
Obsns: FD total = 19 incl'g 13 sanctums;  
Bilodeau total = 21 incl'g 2 naked eye est's + 19 obs'd by FD incl'g 14 sanctums. Closed up 3:30 AM PDST June 10. All machinery working OK.

June 10 Ford, Carpenter, Bilodeau. Opened up 11:30 PM PDST. Fair to good seeing, only fair transparency, no wind, temp  $64^{\circ}$ - $61^{\circ}$ , comfortable obs'g.  
Obsns: FD total = 14 est's w/ 7 sanctums; CE total = 2 w/ 1 sanctum; Bilodeau total = 16 w/ 7 sanctums + ~~two~~ naked eye est's. Closed up at dawn light 4:10 AM PDST June 11.

June 11 Ford, ~~Carpenter~~, Bilodeau. Opened dome 11:30 PM PDST. Seeing fair to good, fair transparency, no wind, temp  $64^{\circ}$ - $60^{\circ}$ .  
Obsns: FD total = 10 est's, incl'g 3 sanctums; Bilodeau 12 est's total incl'g 3 sanctums + 2 naked-eye. Stopped obs'g 02:25 AM PDST June 12. All equipment working OK, following repairs to P.A. setting circle gears made by Carpenter during afternoon of June 11.

June 12 Cragg, Ford, Bilodeau. Opened up 9:45 PM PDST. Poor seeing, good transparency. Crescent moon, setting. Temp  $65^{\circ}$ - $58^{\circ}$ , no wind. Obsns: FD total = 23 est's w/ 18 sanctum; CR =  
Bilodeau = . Obs'd thru until dawn lite 04:25 AM June 13.

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June 14 Ford, Belodeau, B. Jones arrived at Obs'y 3 PM PDST. Converted from visual to PEP Set-up in preparation for test runs with newly-completed PEP amplifier (most recent Stokes transistorized circuit) + modified cell housing (improvements to diaphragm slides). Back down to W/W house 6:15 PM

Obse 3 returned 10 PM PDST, spent entire obs'g time in testing the PEP outfit. Obtained good deflections on recorder chart for two stars in field of  $\beta$  Cyrae, and for  $10.0 \times$  in field of  $\gamma$  Delphinus. Two difficulties w/ amplifier (1) slow time response (2) too much dark current recorded. Jones figured way to remedy both problems by additions to the ampl.'s circuit. Optical problems: (1) Eye relief in cell housing viewer; (2) cross-hair illumination in both cell housing viewer and in guide-scope (f/20 5" refr.) eyepiece. Royer's peanut-tube device for illumination to be replaced by permanently-wired bulbs in both places. Closed up 2:45 AM PDST June 14.

June 15 6:30 - 7:45 PM PDST. Cragg, Ford, Belodeau, B. Jones, w/ guests Mrs Cragg + Mr + Mrs D. M. Overbeck from South Africa. Demonstrated equipment, took pix, returned to W/W house. Very windy, no use of equipment later in evening. B Jones stayed in obs'y to sleep.

June 16 Ca. 9 AM, Jones left obs'y, locked up.

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June 17 Royer, Ford, Padilla at obs'y two times during afternoon + evening. Royer installed new Masonite cover on triangular work table SW corner of dome area. Telescope converted back from PEP to visual set-up; B. Jones removed PEP cell housing + amp's when leaving obs'y on June 16, after sleeping there on night of June 16. He will make changes in same before next test run of PEP equipment.

June 18 Ford, Carpenter. Opened up, 10 PM EDT. Gibbous moon, high winds, but sky OK for transparency. Obs'y confined to Cygnus area (NE) opposite wind source direction, and to sky-checking of new chart sketches by L. Hazel. FD checked total of 6 charts, CE obs'd 5; vars: (3 were sanctum). 193030 HR Cyg; 192931 EG Cyg; 205830 DI Cyg; 205332 AT Cyg; 205233 AQ Cyg; 204733 AN Cyg. Stopped obs'y; too much wind + cold temps = 43° — 00:10 AM PDST, closed up.

July 4<sup>5</sup> Padilla, Frigor, Lonsom, Goldys. - Set up outside observatory to test new portable optics. No wind. Good seeing + transparency.

July 6-7 Roza, Marcori, Padilla, Glowacki + ~~Goldys~~. Both Long set-up for photo-visual photography. Put on large diagonal - filters - focus tests, etc. First photos of RV Her.  $\frac{1}{2}$  hour prime focus. Photos were good with following corrections - both systems slightly out of focus. Some light leak on prime focus camera. (Direct light of sky not covered by tube)  $\frac{1}{2}$  hr. prime focus photo still needed 15.5. photo-visual

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4:30 a.m. did 3 occultation timings  $4^\circ$  off horizon - excellent timings. Also timed reappearance of Mercury.

July 7 Cloudy. Some Polaroids of  $\mu$  job to determine axis orientation. Appears OK to this scale. Must try to square-on histogram later

July 8 Cloudy + some light rain.

July 9-10 Clear - no wind -  $70^\circ$  F Prime-focus photography  
 54 Vir 1 hour IIaD + wr 12 for AAVSO chart  
 RV Her " " " " " "  
 Nova Scuti '75 " " " "  
 UX Cyg " " " "

July 10-11 Roper - Macario - Padilla still here - astrophotography continued. Good night - as last night.  
 M 51 IIaO plate 15 min. - Excellent.  
 XZ Her  $1\frac{1}{2}$  hour exposure IIaD + wr 12 excellent photo  
 Seeing good both nights - excellent at times.

July ~~12-13~~ <sup>11-12</sup> Roper - Macario - Padilla - Andy Toth with  
 Occultation timings in twilight. f. 1.5 Celestron 8" Schmidt camera

N.G.C 4565 18" Prime focus 15 min. Polaroid  
 30 min. IIaO - excellent results  
 did processing here during subsequent exposures.

10 min Plex X on M 8 + M 20 showed all nebulosity with Schmidt camera.  
 Schmidt camera color still to be processed

Seeing good - some wind - transparency good  
 Temp.  $68^\circ$  F.



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July 12-13 Bilodeau and Jones, Arrived 10 PM PST  
Light Breeze - TEMP 68°F. TESTED  
PEP EQUIPMENT. NEW FABRY LENS WORKS  
VERY WELL - GUIDING WAS MUCH LESS CRITICAL.  
AFTER GUIDE SCOPE WAS ALIGNED, FINDING WAS  
DONE VERY EASILY WITH GUIDE SCOPE. NEW  
Amplifier works much better than old although  
some minor problems remain. Amplifier will  
be taken for further work. Tracings of  
brighter stars were very clean but thermal  
noise made fainter star tracings MESSY.  
GOOD separation of dark, dark+sky, and  
dark+sky+star was obtained with 11.0 M  
star. With 13 M star separation  
was obtained between dark and dark+sky  
but thermal noise hid differences between  
dark+sky and dark+sky+star. For  
FAINT work we must cool the PM TUBE  
AND/OR work on cooler nights. LEFT 3:00 AM PST  
TEMP. 64°F. SEEING AND TRANSPARENCY good  
although some clouds near horizon.

July 13-14 PADILLA + FRIGON SET UP TO PHOTOGRAPH COMET  
K-B-M (1975A) AT PRIME ON 18". HEAVY CIRRUS TIL  
ABOUT 10 PM, CLEAR ALL NIGHT AFTER. TOOK 1 35MM  
10390 EXPOSURE AT PRIME 5 MINS, 2 4x5 POLAROID  
AT PRIME. RESULTS FAIR. COMET MOVING NORTHWARD  
RAPIDLY - HARD TO GUIDE ON IN DEC.

July 14-15 PADILLA + FRIGON CLEAR WITH MODERATE WEST WIND  
ALL NIGHT. GOT 3 4x5 POLAROID AT PRIME, 2  
10390 35MM AT PRIME PLUS COLOR PIGGYBACKED.  
NO PROBLEMS.

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AUG 2-3 BILODEAU & JONES - 10:00 P.M. to 3:05 A.M. (PST).  
 TRANSPARENCY: GOOD; SEEING: FAIR<sup>+</sup>; MOON: WAXING  
 CRESCENT; TEMP: 69° - 65°; WIND: LITE BREEZE (12:00 -  
 1:50). VISUAL RUN - JONES: 4 ESTIMATES (ALL SANCTUMS),  
 BILODEAU: 14 ESTIMATES (10 SANCTUMS - FAINTEST ~) 6.0).  
 BOTH OF US VERY TIRED SO WE GAVE UP QUICKLY.  
 ALL EQUIPMENT OK. LADDER ON PLATFORM IN VERY POOR  
 TOP LOCK ON FRONT DOOR NOT LOCKED. CONDITION.

AUG. 4 BILODEAU & JONES - 11:30 - 12:00 P.M. (PST).  
 SURVEYED OBSERVATORY GROUNDS & BUILDING. ALL IS  
 OK. SECURED BLDG. & LEFT.

AUG. 5-6 Royer, Padilla, Frigon, Toth. Photograph  
 till 1:00 A.M. on comet 1975 h (K. B. M.)  
 Easily naked-eye object - but very faint tail  
 just visible in blue exposures on astrophot.  
 Used Schmidt camera also.

Worked till dawn on star-fields.  
 Clear night - 68° F. gusty S.W. wind.  
 Seeing fair.

AUG 8-9 Steve Padilla & Lee Frigm. Photographed  
 Comet 1975 h w/ 18" at prime focus  
 on 4x5 Polaroid films. Also piggy-backed  
 35mm cameras using color & 103a-D emulsions  
 Seeing and Transparency fair most of night til  
 cirrus moved in during early morning hours.

AUG 9-10 Padilla, Lorenson & Wade. 35mm color  
 photography of Comet 1975h, M57, M27  
 & Jupiter at prime focus & piggy back.  
 Seeing & transparency fair. Comet visible  
 naked eye. At least 1 degree tail easily  
 visible through 18"

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AUG 10-11 Padilla, Sorenson, and Wade.

Photographed comet 1975h prime focus on 18" with 4x5 Polaroid.

Obtained good photo. Left about 10:30 AM.

USE

ALLEN

SET-SCREEN

TO HOLD

TURRET

BASE

OUT TO

YOUR

NEED

R. ROYER

↑ ↓

We tried that, it didn't work.  
RS

Jones and Janke (guest). Wanted to test PEP equipment but conditing unfavorable. Light to moderate wind turned into strong wind with gusts. Tried some photography at prime focus to test 2 1/4" film back adapter. Seeing went from fair to poor. Offset screws on guide scope loose and binding. Lubrication fixed binding but unit needs to be removed and tightened - will do this next trip. focal plane is too far out for visual, eyepieces will fall out of turret if brought to focus. This must be taken care of as soon as possible! Apparently focal plane was moved out for photography after Aug 4. Closed up at 5:30 AM unable to locate paper disk normally placed over mirror cover.

Aug 17/18 Maricao; arrived 6:15 found observatory in good shape except some S.B.B. left the green trash can filled with trash smelled like all hell!! Opened dome at 6:30 temp 66°F. Photographed at prime one polaroid three min exp of comet 75h. not bad too much moon. Made four variable <sup>star</sup> observations three were Sactums. Too tired to work rest of night closed at 1:15 <sup>RD ET</sup> temp 59°F; seeing 3-4 lite SW/wind.

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Aug. 18/19 Macario; Swept out observatory top and bottom. Empty green trash can that I left outside last nite. Please, Please empty trash after observing run is over thankyou. Opened at 6:00 temp 65°F visual work 22 observations. 6 sactums. seeing most of nite about 4". Wind from the SW mod to strong at times. High cirrus all nite in north. Closed at 2:00 <sup>RD&T</sup> temp 48°F.

Aug. 21-22 Full Moon - Royer, Padilla, Toth tried to photograph Comet 1975 h. All Polaroids burnt out except 1 min photo. About  $\frac{1}{2}^\circ$  tail visible. Head still visible to naked eye. Royer made low-power retake that worked well for this. Used LED light source. Attempted difficult lunar occultation timing through night. No good results. Aesthetically beautiful night 70-50°F. no wind - no clouds - very neat + clean Observatory - thanks Mike!

Aug. 26-27 Toth - Padilla - Macario - Royer. Schmidt camera and astrograph on 18" to photograph Comet 95 h. We had a 10 min. window after twilight with comet framed between tree and bushes. All exposures good - excellent conditions. about  $5^\circ$  tail in binoculars. Polaroids of M 11 and nova Scuti 95. Good quality in spite of moon. Lunar occultation timings under increasing wind and deteriorating seeing. New retake set-up works well. A good night!

$8^\circ$  Tail  
in astrograph

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Aug 28-29

Cragg alone. Visual variable stars from dusk to 3<sup>15</sup> AM. Bad SW wind all night, seeing variable (3-0), transparency 5-6; last quarter moon in Tau. Wind too severe to work with lower part of shutter open so no far southern work. Got 56 estimates which included 38 sanctums. In better moments and high up ~~go~~ could reach about 17.0. Much appreciate telescope's being left in visual form since I arrived about dark.

Sept 26-27 Padilla & Marcaris. Arrived about 4:30 pm.

Found west window of obs. partly open! Apparently, unauthorized visitors had forced window open to gain entry. Nothing was found damaged or stolen except for small ladder, which was later found in the trees west of the observatory. Visitors drank all the old beer in the refrigerator & left trash in trashcan. Suspect that it was kids.

Did prime focus & piggy-back astrophotography with 18" until moon rose about 11:00 pm. Primary purpose was testing of 8-15 hr nitrogen-baked GAF 500 color film. Did series of exposures on M17, M13, Hel nebula. Also photo'd Comet 1975h in early morning.

Sept 28-29 Marcaris & Padilla

Nitrogen baked GAF 500 test cont. Objects photographed NCC 6320, 7009. Had bad backlash problems; and dec relay kept on sticking. Seeing excellent, transparency very good.

Bilodkan and Jones arrived around 7:30 to use the P.E.P. equipment after moon rose. Left around 12:00. Good night in spite of problems.

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Sept 28-29 Bilodeau & Jones, After Marcaris and Padilla left (~12:15) we set up PEP Equipment for test run to determine source of gain problem in amplifier. IT will take some days to analyse the cross-calibration tests. Had problem with chart recorder - it has a large dead zone which may be due to need for lubrication. Dec slow motion continued to stick and tracking seemed sloppy. Closed up about 2:30. Filled holes in wooden ring in preparation for sanding and painting. Placed file in rear window as a makeshift "lock".

Sept. 30 Royer + Marcaris. Fixed dec. relay.  
 Oct. 1 Secured allen screws on r.a. - all worked fine during night run. Cloudy - but cleared after dark to average transparency 58° F. No wind.

Did 1 hour exposures on following

AS Peg 210818

EF Peg 211013

Z Equ 210409

EV Peg 214406

> II a D  
 + wt. 12

18" f. 7. + Did monitor photos on astrograph. all taken with

19% sunlit moon rose at 2:00 A.M.  
 3 lunar occultation reappearances timed.

4-5 A.M. P.S.T. worked comet '75 h  
 Poor low horizon transparency. Little hope of good photos. Comet faint - about 15' tail - very faint + narrow.

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OCT 18-19 Bilodeau and JONES. No observations were planned due to full moon. SANDED wooden ring in preparation for painting and began testing of PEP TUBES for dark current. Light breeze & temperatures in mid 40's. Sky cloudy. left at 2:00 AM PST.

Oct 25-26 Marcario arrived at 6:15. Opened Dome temp 52°. Visual work of variable stars started 7:15. Mid wind from S.W. SU TAU dropped from 10.3 to 10.8 in two nights. Seeing very good most of night. Padilla, Sorensen, Grogan, Goldys came up to observe the 2<sup>nd</sup> half of night.

Oct. 27-28 Royer + John Bascom. SU Tau at 11.0 Good return lunar occultation timings. Photographed Comet 1975 K just at beginning of twilight. Prime focus polaroid shows 4" of head - faint nucleus, no tail. Moving fast - I think this was last possible morning to observe it. It is very faint, almost impossible to guide on. Temp. from 50 to 42° F. No wind. Some cirrus in S.E. All controls worked perfectly. Glad to see windows boarded up.

Oct. 31 - Nov. 1.

Ford + C. E. Scovill (from Conn.). Opened dome right after sunset, to observe early-setting variables including R. LB. Light wind, Temp's 41°-39° F., seeing fair, transparency good. Total estimates = 31 for FD, same no. for CES before stopping obsq at 3:15 AM PST Nov. 1. Total no.

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Oct 31 - Nov. 1 (continued)

sanctums obs'd = 22.

Nov. 1-2. Ford, Scovil, Bilodeau. Opened dome ca. 9:30 PM PST. Total estimates per observer = 14, w/ 11 sanctums. Temp 52°, seeing fair, transparency good. Closed dome @ 1:30 AM PST Nov. 2.

Nov. 3-4. Ford, Scovil, Bilodeau. Opened dome ca. 10 PM PST. Total estimates per observer = 23 including 12 sanctums per FD record. Seeing poor, light wind, temp. 45° - 42°. Closed dome at 2:30 AM PST Nov. 4.

Nov. 4-5. Ford, Royer, Scovil, Bilodeau. Opened dome ca. ~~11:30~~ 11:30 PM. During the day on Nov. 4, Carpenter repaired leather belting on R.A. dial drive and installed new latch lock on front door. Total vars obs'd per FD records = 17, w/ 6 sanctums. Temp. 46°, seeing fair to poor, transp'y only fair. Closed dome 2:05 AM PST Nov. 5.

Nov. 5-6. Ford, Scovil, Bilodeau. Opened dome ca. 10 PM. Seeing poor, very windy, gusts est'd to 30 MPH., temp. 46°. Transp'y OK. Total est's per FD record = 14, including 4 sanctums. Obs'g very uncomfortable due to wind. Closed dome 1:40 AM PST Nov. 6.

Nov. 6-7. Ford, Bilodeau, R. Jones. Opened dome ca. 9:30 PM. Good sky, only light wind, seeing fair. Temp. 52° - very comfortable. Obs'd 22 vars. per FD record, including 14 sanctum est's. Jones testing PEP tubes for dark current, and took chart recorder apart + cleaned same.



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Nov. 6-7 (continued). Closed dome 2:40 AM PST Nov. 7.

Nov. 7-8. Ford, Bilodeau, Jones. Dome opened ca. 10:30 PM. Windy, seeing poor. Temp. 54°-50°. Obs'd 11 vars per FD record, including 5 sanctums. Closed dome 3:00 AM PST Nov. 8. Jones testing PEP tubes for dark current, w/ Bilodeau assisting.

Nov. 9-10 Ford, (alone). Crescent moon, setting when opened dome, 10:45 PM PST. Wind gusts to 20 MPH; Temp. 43°. Seeing poor, worked eastern sky only to avoid moon. Total vis. estimates = 22, including 6 sanctums. Closed up 2:15 AM PST Nov. 10.

Nov. 13 Ford (alone) 1-2:30 PM PST. Removed worn bottom portion of obs'g ladder legs, for repairs. Reinstalled rubber mat over dome entrance which had been removed by Bilodeau + Jones ca. Nov. 6, '75 in order to repaint dome fascia board. Took ladder legs to W/W house, to repair.

Nov. 15 Ford + Carpenter 2-3:30 PM, PST. Re-bored holes for mounting repaired ladder legs. Completed repairs on same, at W/W house. Made measurements on ladder, with view to replacing with entirely new (electric?) hoist, eventually.

Nov. 18 Ford (alone). 2:30-3:30 PM. Came up to fit new ladder legs to obs'g platform. Found more work to be done at W/W house to complete job (metal leg ends). Took Al pcs. from under steps at obs'g back down to W/W house, completed new ladder legs ca. 5 PM PST at W/W house. Full moon, no obs'g tho sky clear OK in evening.

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Nov. 20-21 Ford (alone). Opened dome 6:20 PM, closed at twilight. Light wind, seeing fair, temp.  $43^{\circ}$ - $42^{\circ}$ . Obs'g until shortly after moonrise (gibbous). Total ests = 20 of which 8 sanctum. Closed dome 9:30 PM, too much moon but sky still OK.

Nov. 21-22 Ford + Cragg. Opened dome ca. 6:40 PM, sky OK then but w/ increasing haze + moonrise (gibbous) forcing end of obs'g 7:50 PM PST. Total FB ests = 10, of which 6 sanctum.

Nov. 23 3:30-4:00 PM Ford, Cragg + visitors by James R. Hauck, Mrs. Hauck + two sons, from CalTech + Cornell Univ. Talked re equipment, returned to W/W house for cook-out also attended by Jim Young, Dir. of JPL Obs'g on Table Mt.

Nov 24. Ford, Carpenter. 11 AM (co.) Buttoned up telescope + dome for long-term leaving.

Dec 13, 75 Marcariv, Kowal, Padilla, Sorenson, Wade testing auto guider (fog, snow and clear weather temp.  $25^{\circ}$ F guider measure light but doesn't move telescope. Collimation problems; diaphragm too large. Mod amount of SW wind.

Dec. 26-27 Bifodisan & Mundsack - 6:00 P.M. to 11:30 P.M. (P.S.T.) Just right-seeing. Seeing very poor due to clouds. Temp  $42^{\circ}$ - $40^{\circ}$ . Had to take ring-shim off of turret to use eye pieces correctly. Decided to leave it off - at least for now.

Dec 31-  
Jan 1 Padilla & Sorenson. Color photography - prime focus + piggy-back. Cold & clear weather. Temp  $30^{\circ}$ - $11^{\circ}$ F. No wind!