

Observatory Manual Operator Instructions

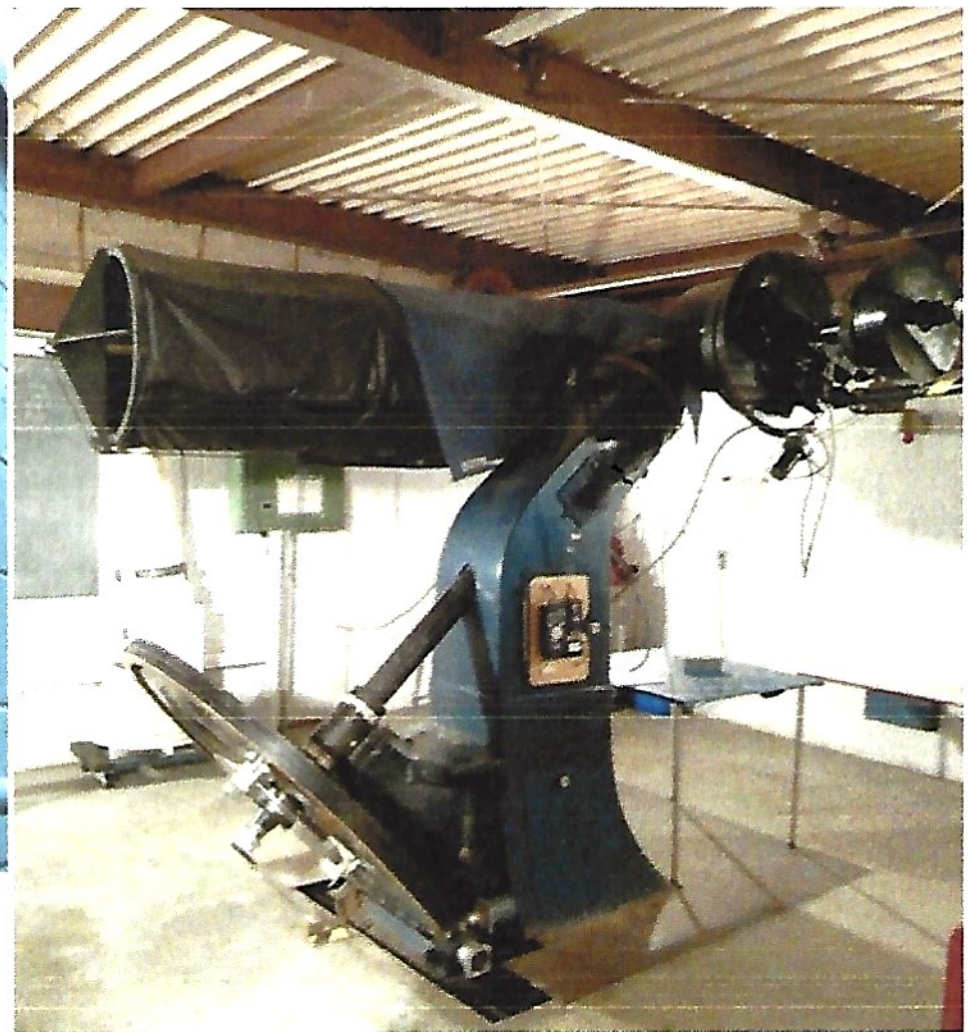
Peach Mountain Observatory Operator Instructions

February 10, 2019
UPDATE April 2024

Operator instructions are for opening and closing the observatory and setting up the 24" McMath telescope and other telescopes/equipment in the observatory.

Instructions are for all events using the Peach Mountain Observatory

The operator instructions were written to develop a Hands On, learn by doing training environment. This will give the operator a better knowledge of the Observatory requirements.



Observatory Manual Operator Instructions

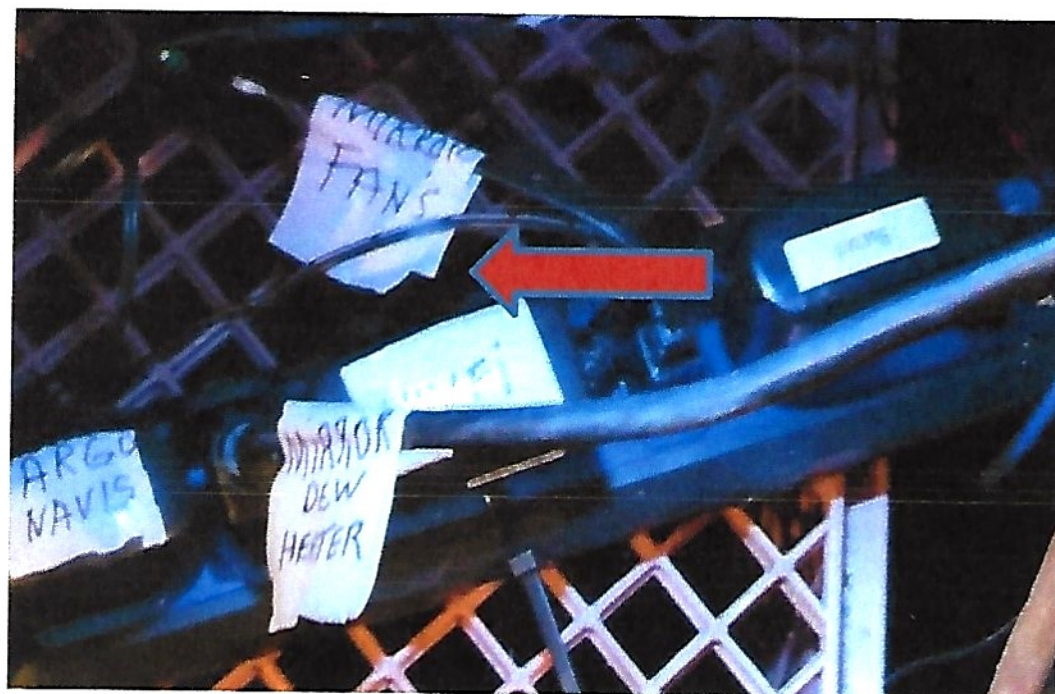
Opening Observatory ; Checklist page 1

Observatory Door; To Open; turn key to the right only for about two turns or until it stops turning while holding the key, push the door open.

New:

24" McMath Primary Mirror Cooling Fans

Go to the McMath Pier Door on east side of Pier. Plug in the Mirror fan Cord into the Power strip. This turns the Fans on, to cool down the Mirror and Reduce image turbulence.
(still under test and review)



Mirror Cover Dew Heater cord, Argo Navis Controller, Ski Fi adapter and Blue Tooth adapter are all plugged into Power strip

Observatory Roof; Make sure handle is on the top shaft and turn to the right to open. Watch roof go over telescope tube and Dec gear (Park Position). You need about 1 inch clearance over length of optical tube assembly. Roll roof all the way back to edge of North wall. Put pawl (bar) in cable drum to lock roof in place

Circuit Breaker Box; Turn off number 2 circuit breaker. This turns off the Heat Lamp Humidity system. Turn on number 12 circuit breaker for RA/Dec motor. Then go to Control panel next to breaker box, on the side of the panel turn the switch on. This will turn the Hand Control Box on and complete the tracking system.

Optional; If you want to use the outlet boxes on the **outside south wall** of the Observatory to power telescope's turn on circuit breaker number 11

Telescope; Open velcro strips along side of cover by secondary mirror. Stick hand into secondary Cover. baffle tube and remove secondary mirror cover. Remove cover from Primary baffle tube and place on top of Control Panel.
Unplug Dew Heater Primary mirror cover cord from McMath pier power strip.
Pull down all three locking sliders on Mirror cover. Then tilt cover and slide over baffle tube. Then reposition cover and slide down between baffle supports (this is tricky).
Put cover in space next to roof crank frame(corner).

Close velcro strips on tube cover Leave power strip ON... ORANGE LIGHT.

Observatory Manual Operator Instructions

Opening Observatory ; Checklist page 2

- Telescope Tube; Remove blanket on top of telescope(mirror end), put in Observatory room. Remove lens cover from 6 inch finder scope and remove 2" eyepiece adapter put 2" right angle diagonal and eyepiece in focuser. 24" McMath focuser; remove 3"adapter and place on top of control panel. The 3" right angle diagonal is in Blue Desk on first shelf Insert it in focuser and lock both screws. Then get 3" 120 mm eyepiece (blue desk, first shelf, black box) install in diagonal and lock screws in place. Round wood handle is for focusing.
- RA /Dec shaft Lock Locking mechanisms are on disk plate below RA Gear. Lever in down position lock is open (no tracking). Lever in up position lock is closed for tracking. DEC shaft, large DEC gear has lock and unlock tabs identified
- Argo Navis/SkyFi Open McMath pier control panel door facing east, power strip should be on Then turn on Argo Navis and Ski Fi, Bluetooth should be on. They are left in the on position. Instructions for setting up and using sky/safari with apple or android and using the Hand controller are located in the manual on the table next to the McMath pier.
- Dehumidifier; Located next to the observatory room door, press power tab to turn off.



When you close observatory press power tab again to turn on and Auto Dry and Auto setting should show

- Red Rope light; Rope light is in Observatory room on wall. It plugs into east wall and runs along wall then outdoor along hand rail ,down edge of side walk. This helps General Public find door and see the ground better so they don't stumble. (Fall Safety)
- Traffic Cones; Contact Open House Coordinator to get traffic cones out of Observatory for parking and who brings them back.

Observatory Manual Operator Instructions

Opening Observatory; check list page three

- 17.5 Dobsonian Club telescope (goto) is stored in the Observatory. Who ever uses the telescope has to know how to set up the servo cat, sky commander and sky safari. They will need help in moving the scope to the hill for observing. In the black carrying case, behind the foam panel is a red plastic manual for using the 17.5 dob. If they have never used this scope before, they need to read up on how to move and use the scope. Be careful not to hit the altitude encoder shaft or finder scope on the door frame when moving, this can get tricky. There is a wood ramp by Observatory room, to move scope out the door and Observing ladder to use with 17.5 dob.
- 8" Cave/sky safari This is the 8" f7 Cave telescope that was converted to use SkySafari this is a push to, set up with an instruction card on the mount. If you know how to use a dob and sky safari this should not be to much of a problem. When moving be careful not to hit the altitude encoder shaft on the door frame or any object.

Observatory Manual Operator Instructions

Closing Observatory; Check List page 1

Return the 17.5 Dobsonian telescope and related equipment back in the Observatory, Eyepiece case, finder scope, 12 volt battery. Setup 12 volt battery and Noco Genius 5 charger, into the TRIPP-Lite power strip then plug in South wall outlet. The small charger for the 17.5 Dob mirror box batteries plugs into the power strip and the battery cord plugs in to the back of the 17.5 dob by mirror fans. If scope was used you have to follow up on these issues. If 17.5 was not used, make sure chargers are plugged in.

8" f7 Cave should be returned and in the observatory. Sky/safari system shut down and charger plugged in west wall outlet

Shutting Down Observatory; You may want to turn on the red lights, switch by entry door. Check the floor for anything that might have been lost?.

Telescope; Return telescope to park position. Optical tube assembly should be parallel to the floor. The declination shaft/counter weight should point to the east wall. The top of the scope should be level with the declination gear, this is for roof clearance. You only have couple of inches. Lock the right ascension and declination gears.

Circuit Breaker; Turn off Number 12 circuit breaker (R/A tracking) and control panel switch off. for hand controller box. Turn on circuit breaker 2 the heat lamp humidity system may come on, depending on humidity temp. Make sure circuit breaker 11 is off. Also read circuit breaker guide lines on box for ON /OFF positions.

Close Roof; Turn the handle counter clock wise to close roof. As roof comes over telescope watch to see that roof edge does not hit 24" McMath for length of optical tube assembly. If you need more room to close, unlock RA or DEC and make adjustment. Continue to close roof until wheels hit stop blocks on South end. Then place cable gear lock(pawl) in drum gear. You may have to move drum gear one tooth to lock bar(pawl) in place this will lock roof in place.

Telescope; Remove the diagonal holder and eyepiece from the McMath focuser and 6" refractor diagonal and eyepiece and return to blue desk/cabinet. Insert eyepiece adapters and caps. Put lens cover on 6" refractor. Make sure Telrad finder is turned OFF. Unseal velcro telescope tube cover along side. Install secondary mirror cover through baffle tube on secondary mirror. Install Primary mirror cover and lock all three slide locks. Plug dew heater mirror cord into McMath pier power strip. Put mirror baffle tube cap on. Now close up velcro seal on telescope tube cover. Place Blanket/cover over telescope on Mirror end.

Observatory Manual Operator Instructions

Closing Observatory Check list page 2

Argo Navis ; Turn Argo Navis switch OFF. And turn OFF, SKY FI Open McMath pier control panel door and make sure power strip is on ..orange light

Mirror fans; Mirror fans should be turned off, unplug cord from power strip

Dehumidifier; Press power tab to turn ON, dehumidifier located next to observatory room door.
Settings: auto Dry and Auto. There is a manual in observatory room white cabinet.

Red rope light; Unplug rope light and hang in observatory room on North side wall

Room Check; Make sure lights are off in Observatory room. Any manuals used from Observatory room should be returned. Check floor and make sure chairs are put in room

Traffic cones; Contact Open House Coordinator to return cones and make sure he /she has key to observatory or have them bring up cones while you are there.

Closing time; Check the hill outside the Observatory for lost items.....it happens

Locking Door; Close door it will lock automatically, handle position does not matter

Keep track of the Observatory and Gate keys

North Territorial gate locked in special order (SEAS & DTE)

Chain ling should not be locked together



Lock Shafts are locked together
Other end on: one chain link

