

Nightly START UP Checklist

Mount Bigelow Schmidt

ver. 4.0 - Last Update: 09/01/2019

This is for a **NORMAL** Start up from a Nightly Start Up.

NOTE: THIS CHECKLIST DESCRIBES THE CORRECT PROCESS, **IN THE PROPER ORDER**, TO BRING THE TELESCOPE OUT OF A NIGHTLY (WARM) SHUT DOWN. IT IS ASSUMED THE TELESCOPE IS ALREADY OPERATIONAL AND THE CAMERA IS COLD.

Attending to the Telescope and Instrument

1. Location: “The Dome”
 1. On the TCS box, turn **ON** the switches on the front of the box labeled TCS MAIN (if it is not already on), then Focus Drive, DEC Drive and RA Drive. Confirm that the “LIMIT OVERRIDE” switch is OFF and the red cover in the DOWN position.
 2. Climb the short staircase along the south wall and then **remove** the dust cover on the end of the telescope.
 3. Cross over to the west wall and **rotate** the Dome Drive power switch to the **ON** position.
 4. Cross over to the east wall, climb the step ladder and press the **UP** button to open the dome shutters. Press the STOP button several inches **BEFORE** the upper shutter is fully open. Depending on the wind conditions and where you will be surveying, you can leave the lower shutter up by changing the position of the toggle switch on the side of the shutter control box before you start opening the upper shutter.
 5. Start the fan.
 6. During the warm months, the wall air conditioner may have been operating. If so, turn it OFF.
 7. Confirm the door to the Tiger Cage is closed.
 8. It is a good idea to monitor the physical condition of the telescope mount and drives.
 1. If you have already engaged tracking and Periodic Error Correction (PEC) via TCS-NG, and **LISTEN** to the **Right Ascension Drive** for any abnormal sounds.

2. **INSPECT** the pre-load cables and weights for any fraying, kinking, no longer riding in a pulley, obvious wear, loose weights, etc. The most likely locations for damage to the cable are near the pulleys, so pay particular attention to those areas. Use a flashlight to better illuminate these areas if necessary.
 3. **INSPECT** the telescope and yoke section of the mount for any cables that appear loose, taught, kinked or otherwise damaged.
 9. **CONFIRM** that there is nothing within the normal arc of travel of the telescope that could come in contact with the telescope during the night.
(Effectively, anything on the elevator floor.)
 10. Before leaving, turn OFF any lights and then close the entry door as you return downstairs.
2. Location: **“Observer's Position”**
1. **Kill and then Restart Control.**
 2. **Start** the rest of the suite of software programs that you will need for the night's observations as usual. Proceed with preparing for that night's survey program.
 3. When it has gotten dark enough to begin, **CONNECT** to the TSC-NG computer via the TSC-NG GUI.
 4. When ready, send the telescope to where you will perform your initial focus for the night. EL 90, AZM 180 is a good location as you will be looking through the lowest airmass, which should provide the best seeing.
 5. **START** “Tracking”, “PEC” & “Autodome”
 6. Perform the Autofocus routine.
 7. Perform the Telescope Initialization using “Super Magic”.
 8. Start the Queue. When using the Planner, the telescope will commence the night's surveying at the calculated time.

The telescope should be ready for the night's observing.