Nightly START UP Checklist
Mount Lemmon 60”
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: **“Central Console, The Dome”**

    1. **Press** the black, round **“Main Power ON”** button to energize the system. If this was not powered up, **press** the s**quare red button** to energize the drive system and the TCS-NG computer.

    2. **CONFIRM** the **voltage meter** on the telescope's south pier shows that the circuit is live.

2. Location: **“Observer's Position”**

    1. **Kill and then Restart Control** and **TCS-GUI** in a terminal window as usual.

    2. **CONNECT** to TSC-NG via the TSC-NG GUI.

    3. **START** “Tracking”, “PEC” & “Autodome”

    4. Send the telescope and dome to a position that will allow you to open the turnbuckles to release the lower shutter. ALT 85, AZM 225 is a convenient position for this and it allows you to open the telescope's dust covers at the appropriate time.

3. Location: **“The Dome”**

    1. Go to the Console and open the upper shutter until it is just short of fully open.

    2. Carefully climb the staircase and undo the two turnbuckles holding the lower shutter.

    3. OPEN the lower shutter using the toggle switch.

4. OPEN the telescope dust covers.

5. Turn “ON” the fans.

6. Confirm the air compressor and air dryer are ON and flowing at a rate of 0.5 CFM.

7. It is a good idea to monitor the physical condition of the telescope mount and drives. The observer may put this section into their start up routine at any place where they feel it works best for them. It is placed in these procedures here only because the time spent waiting for the vacuum pump to spin down and stop offers an ideal opportunity for the observer to make these checks!

    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.

    4. **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.)

8. **CONFIRM** all of the other doors into the dome are fully closed and secured.

9. **All of the lights are “OFF”.**

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