Schulman Telescope Limits

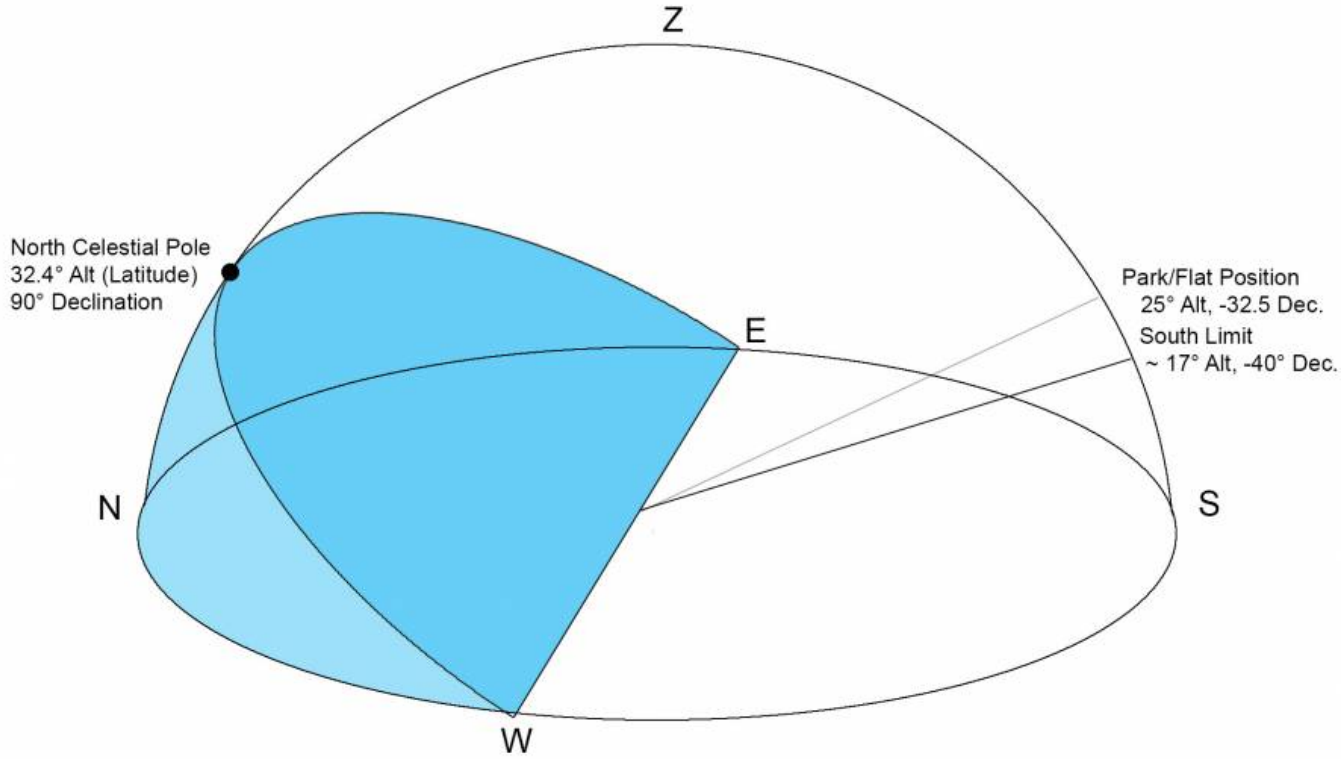
The telescope has both mechanical limits and software limits in place. For purposes of this document the mechanical limits are defined by the diagram below (please refer to it in the following discussion). The software limits imposed on the system by the LCOGT software are effectively the mechanical limits on each axis. Other programs such as ACP have software limits that are adjustable. Generally these are either set to be very close to the mechanical limits or in some positions represent when the mirror is more than 50% occulted by the dome wall.

Declination

- The telescope will swing below the celestial pole and slightly beyond horizontal with the ground (when on the meridian) until it reaches the north hard stop (actually a rubber stop). This limit is called “L1 Positive” and it is the position reached in the course of homing the telescope. Often this position is a good one to clean the primary mirror, work in the truss box, and unfortunately clear a focuser jam.
- The southern hard stop is just before the position where the truss supports collide with the inside of the fork arms. It is roughly 8 degrees below the Park/Flat position. The Flat position is at telescope elevation of 25 degrees so that the front of the telescope is planar with surface of the flat panel.

Hour Angle

The hour angle hard stops are roughly at +/- 5.2 hours.



Notes

When the telescope as at a limit the position is undefined and tracking stops. Consequently anything that requires a position will likely not work. For example connecting ACP to the telescope while it is in the home position can be an issue.