



MULTIPLE MIRROR TELESCOPE OBSERVATORY

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MMTO Technical Memorandum 83-13

From: J. M. Beckers

Subject: Specifications on the mounting of the mirror which feeds the Top Box optics

- (1) The following are the nominal values for the position and angles of the feed mirror for the Top Box optics:
 - (a) mirror intersects z axis 9.00 inches ± 0.02 inches below bottom plate of top box (= top of instrument mounting flange when mounting directly to the top box or 6.00 inch above instrument mounting flange when using spacer ring). With 0.02 inch deviation the focus change is unnoticeable.
 - (b) mirror center (slits, holes) should be within 0.02 inches from the intersection of the (x,y) plane with the z axis. With 0.02 inch deviation the center moves about 2 arc seconds on the camera.
 - (c) the mirror is tilted towards the + y axis (see definition below) by 12.50 degrees ± 0.04 degrees. With the 0.04 degree deviation the pupil images move by 4.4% of their diameter.
 - (d) the mirror is not tilted in the x axis by more than 0.04 degrees.
- (2) The z axis is the direction in which the MMT is pointing. The y axis on the top box is at right angles to this so that the (y,z) axis includes the optical axis of the Beseler lens. Positive y is toward Beseler lens. The x axis is orthogonal to this.