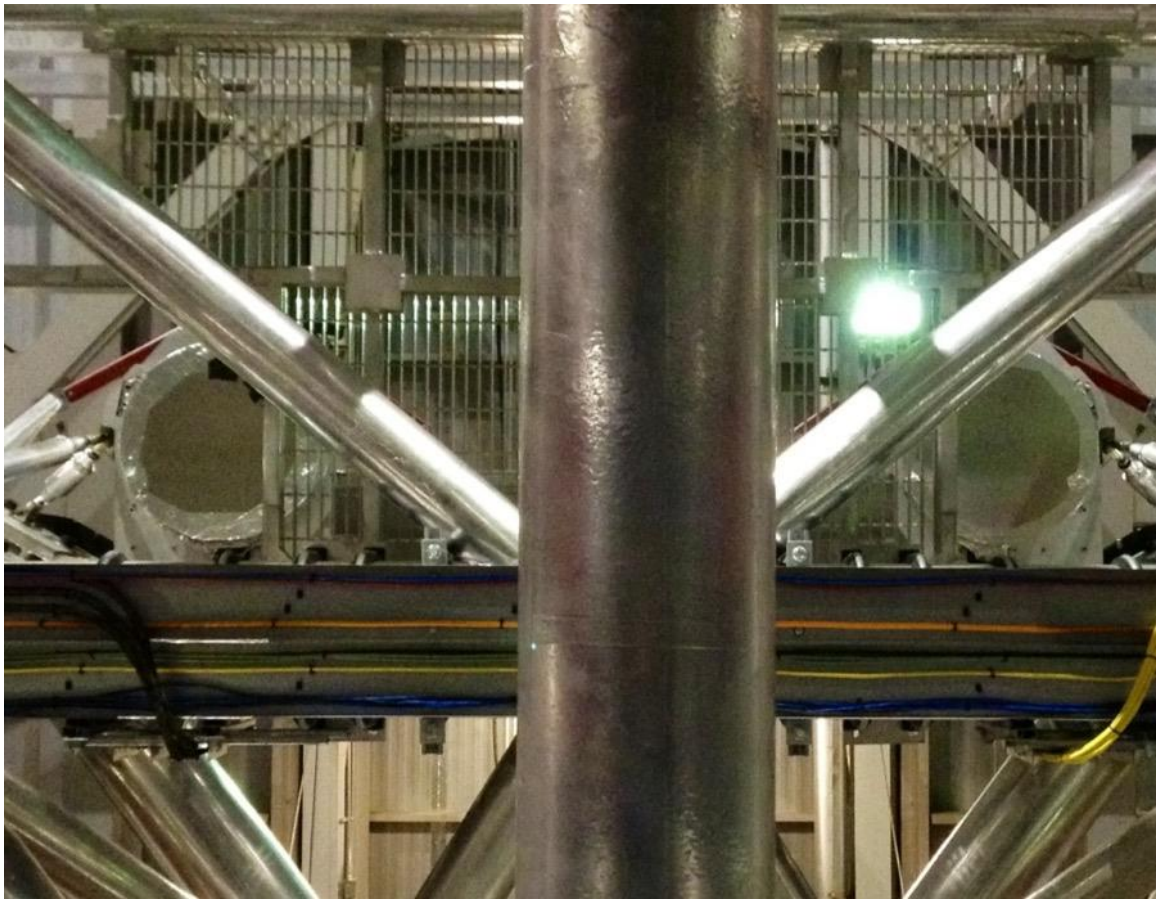
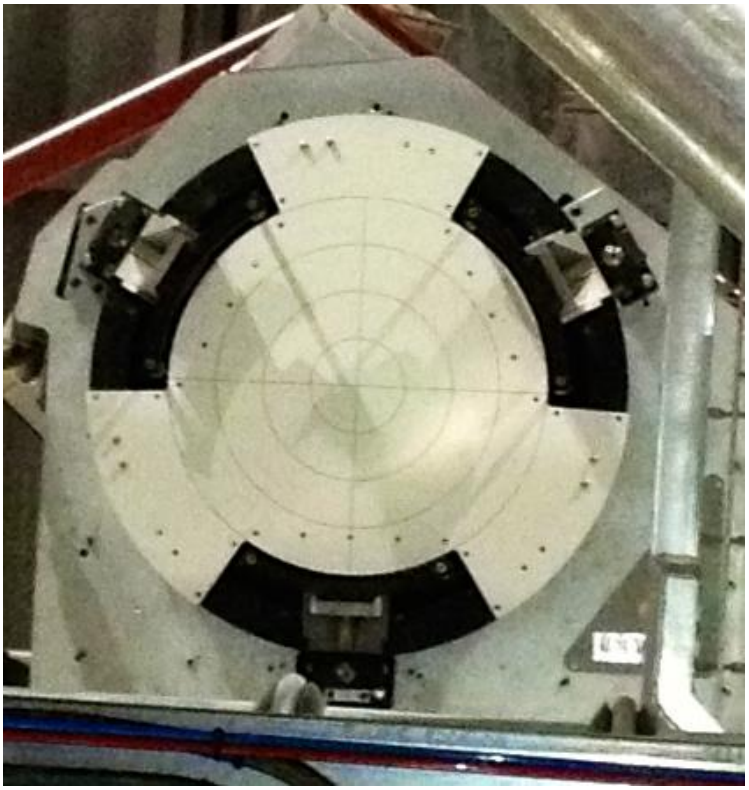
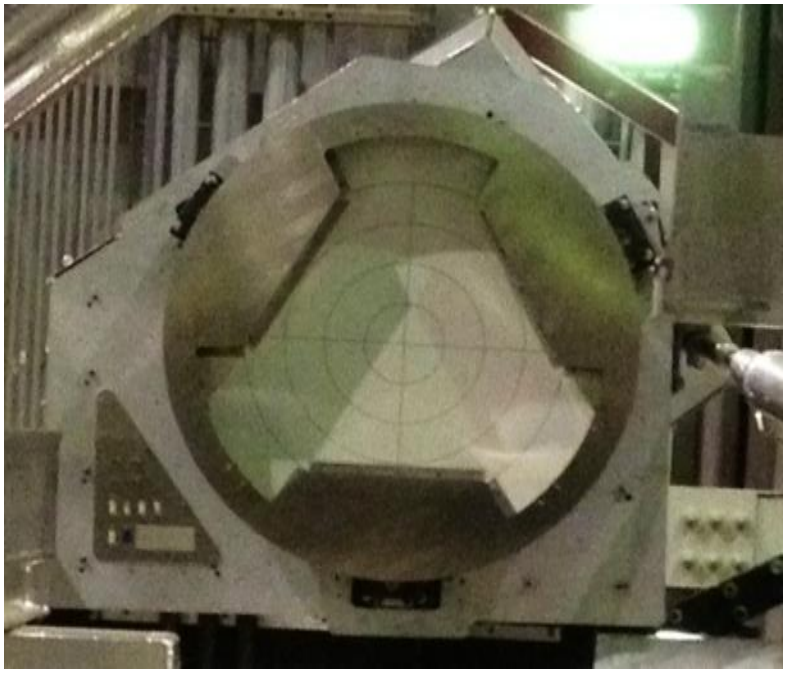
Photographic Summary of ARGOS Campaign (Work Completed on Monday, 6/17/13)

Large Binocular Telescope at Horizon - Preparing ARGOS S Laser Boxes for Alignment with Large Aspherical Lenses (LALs)



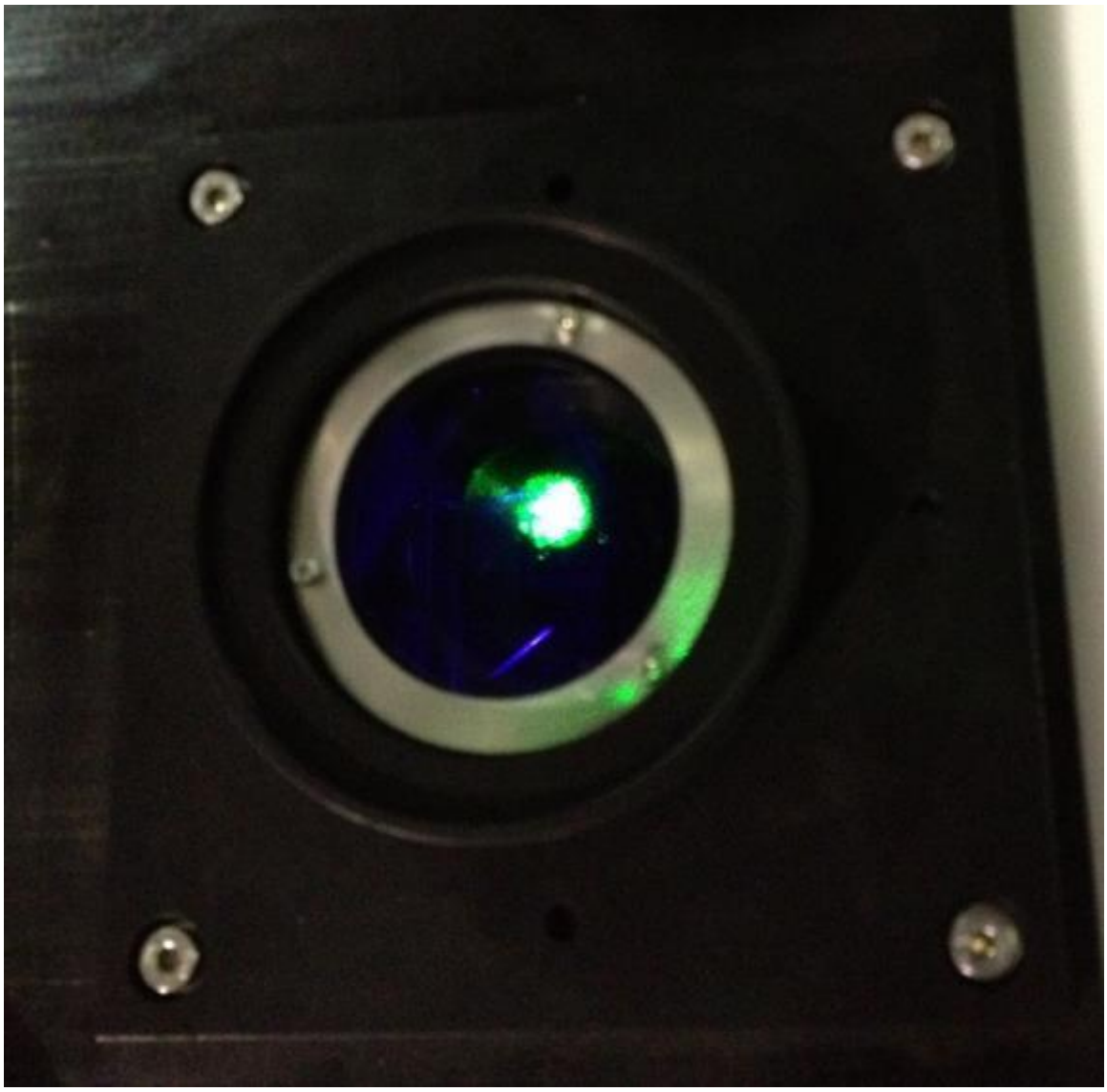
View of Large Aspherical Lenses (LALs) As Seen From ARGOS Laser Boxes – SX (left) and DX (right)



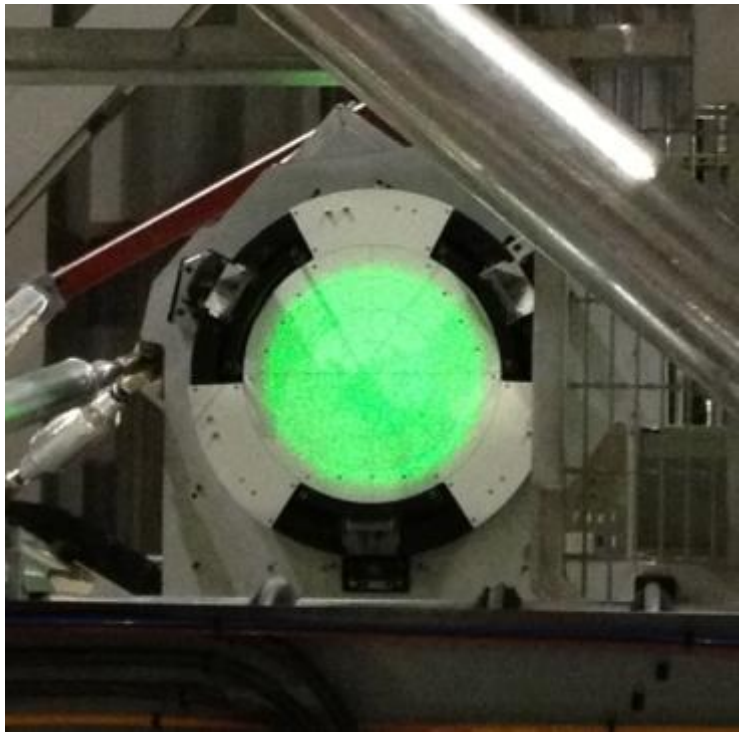


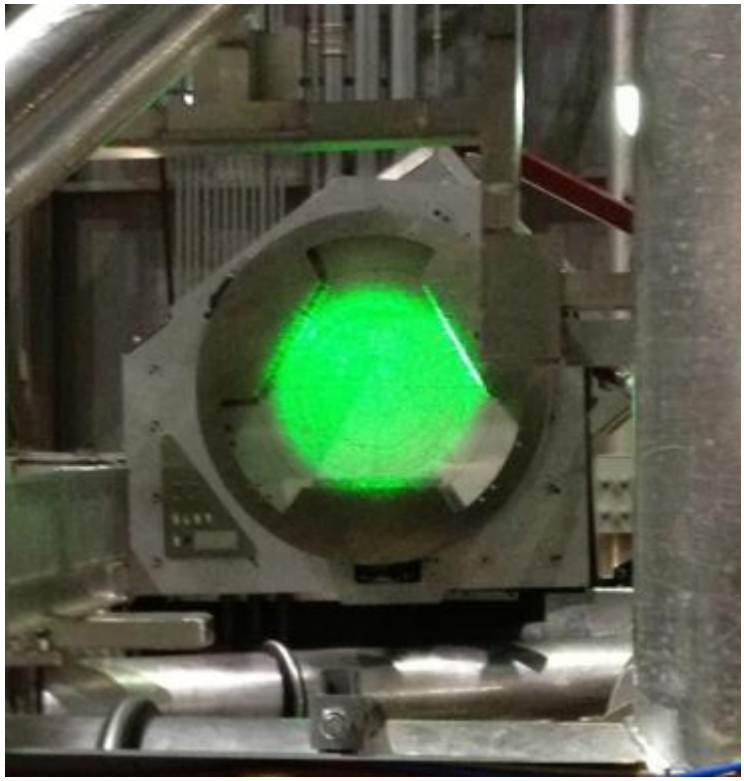
SX (top) and DX (bottom) Alignment Targets Installed Over Large Aspherical Lens (LAL) housing

Verification of Internal Beamtrain Alignment Within DX Laser Box

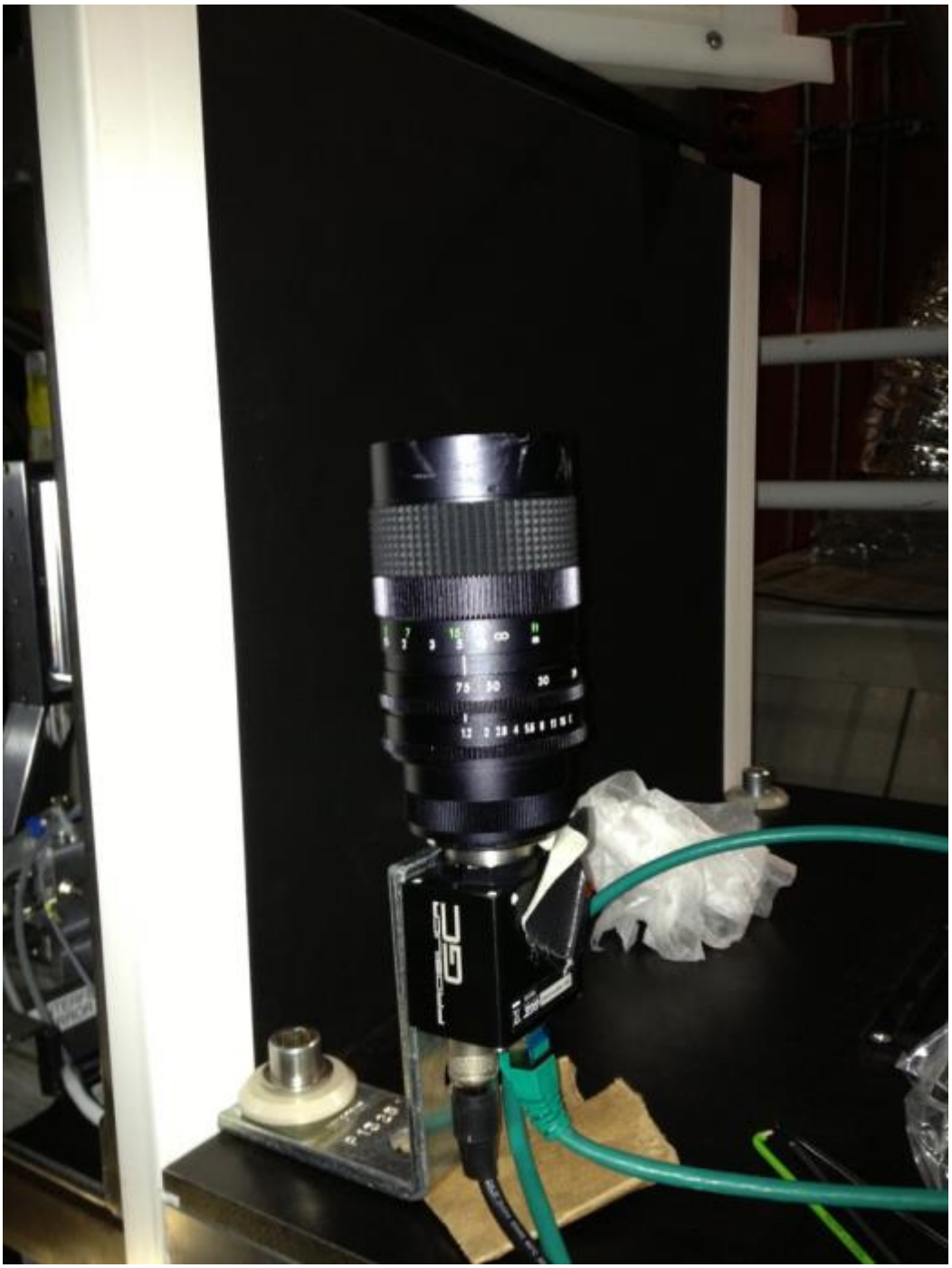


Output of Alignment Laser from DX Laser Box
(Note offset output beam that allows for convenient rotation of the output window in the event of AR coating laser damage – window may be rotated several times before output window must be replaced)



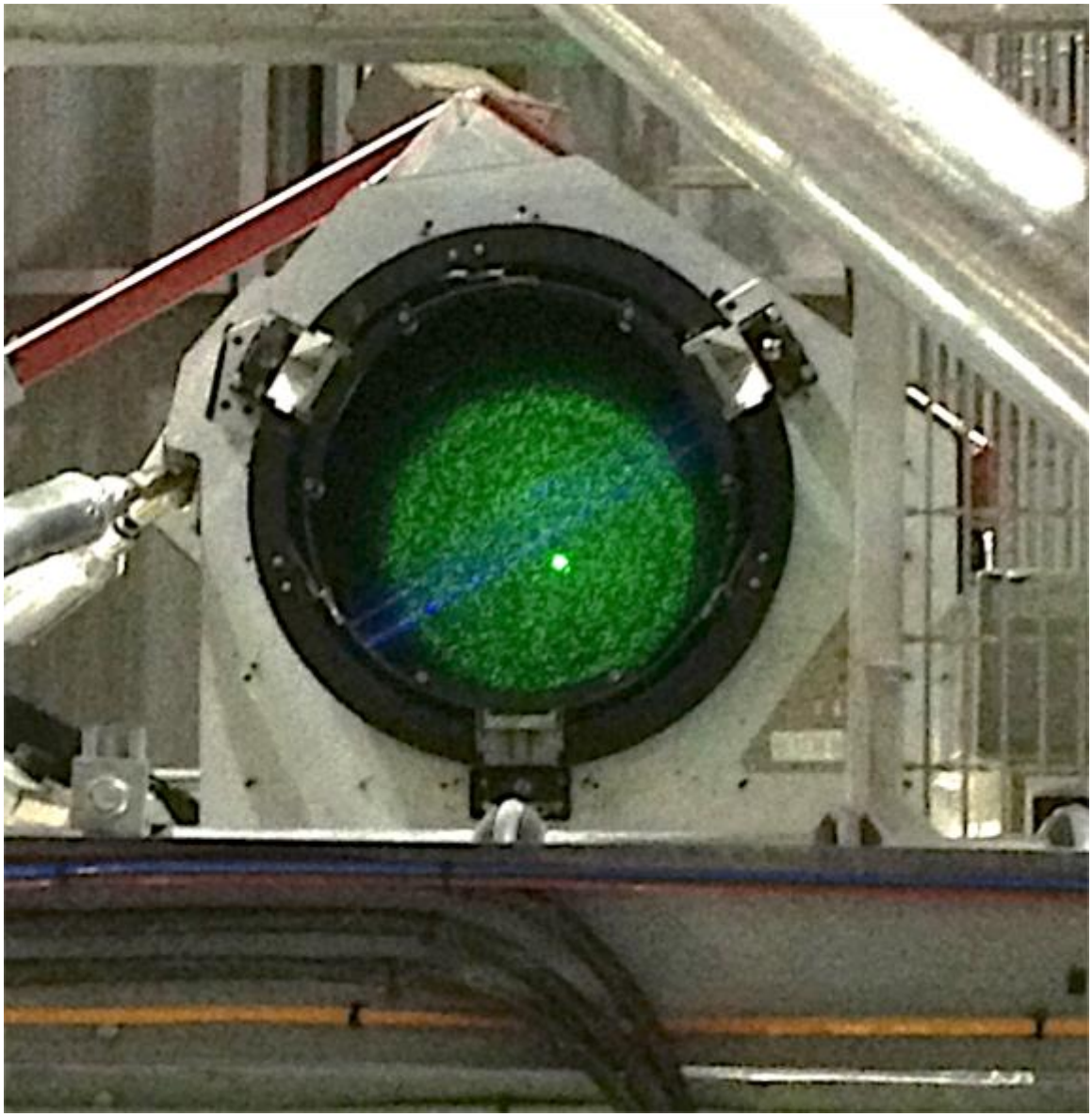


Illumination of SX (top) and DX (bottom) Alignment Targets Installed Over Large Aspherical Lens (LAL) housings



CCD Camera Mounted On Top Of Laser Box That Was Used To Point The Lasers With Respect To The Large Aspherical Lens Targets

CCD Output Showing ARGOS Alignment Laser Properly Aligned With Respect To Large Aspherical Lens Target on SX Side of LBT



ARGOS Alignment Laser Illuminating SX Large Aspherical Lens (*Note: Laser appears to be off-centered on clear aperture of lens due to the angle at which the photograph was taken)

Tip-Tilt Alignment of Large Aspherical Lens on SX Side of LBT