

Palomar Adaptive Optics Test Plan

Title	PalAO / Pharo Flexure
Version	1.0
Date released	04/07/2008
Lead	R. Burruss
Time requested	1 hour
Required conditions	PalAO and Pharo installed on the telescope + operator

Purpose

Determine the flexure between the PalAO system and Pharo. Verify that the flexure is comparable to the flexure measured in similar tests before the latest P3K realignment. This test will also be used to verify that the new stimulus (installed April 2008) provides a lockable white light source at all telescope zenith angles.

Test procedure

1. Acquire and lock on the white light @ zenith to verify system is working
 - 1.1. Make a new co_default if needed
 - 1.2. Make a new flatmap if needed
2. Take 3 background images w/ Pharo in 25mas, StdCross, K, ND=0.1%
3. Slew the telescope to HA = 4 hours East and DEC = +60
4. Reacquire and lock the TTM loop on the white light
 - 4.1. Center both TTM_A and TTM_B with image motion
 - 4.2. Note the WFS_CAM start time
5. Set the number of Pharo cycles to 256 and start taking images
6. Slew the telescope to HA = 4 hours West
7. Stop taking Pharo images
8. Open the TTM loop and note the WFS_CAM stop time
9. Repeat steps 3 – 8 at DEC = +33, +0, -20
10. Slew the telescope to HA = 6 hours EAST and DEC = +45
 - 10.1. Verify that PalAO will lock the DM on the white light
11. Slew the telescope to HA = 6 hours WEST and DEC = +45
 - 11.1. Verify that PalAO will lock the DM on the white light
12. Slew the telescope to HA = 6 hours EAST and DEC = 0
 - 12.1. Verify that PalAO will lock the DM on the white light
13. Slew the telescope to HA = 6 hours WEST and DEC = 0
 - 13.1. Verify that PalAO will lock the DM on the white light

Results and conclusions