

Palomar LGSAO Engineering Summary 04/24/07 UT

Afternoon:

- Laser power is ~3W, apparently limited by 1.06um laser power (~8W). Renu is working on it.
- AO checkout complete.
- BTO alignment complete.

Night log:

1915 Opening dome. Weather: Clear and hazy.

1935 Closing due to rising humidity.

2030 Laser power: 3.0 W

2045 Starting laser alignment to BTO. Required a repositioning of the polar axis irises.

2149 Starting BTO off-zenith test.

HA	Dec	El	
0	0	57.	OK (M1 ran away...)
+2.5	0	41.5	OK
+3.0	40	53.4	OK
+3.0	60	50.5	OK
-3.0	60	50.4	OK
-3.0	40	53.5	OK
-2.5	0	41.7	OK
0	-15	41.6	OK

2300 Calling the night for the laser due to low power.

0000 Starting phase retrieval test.

0140 Starting LOWFS flexure test at +30 dec.

UT	PHARO	HA start	HA end	
08:44	18-359	00:00	00:15	No comp.
09:00	360-641	00:00	00:15	60s comp.

0220 Opening dome for NGS engineering.

0220 First target: SAO 065057 V=7.0 A0

0226 Starting AO Checkout.

0240 Testing PHARO macros in NGS.

0245 Gathering photometry for fiber calibration.

0255 Testing HOWFS-DM registration on faint stars.

0320 Testing LGS PHARO macros on M13 field.

686 lgs_bxy5...

Result: multiple 2" moves must include 5s pause.
multiple 5" moves must include 10s pause.

0400 Starting LOWFS focus transfer curve test.

0430 Starting LOWFS field curvature test.

POS	X	Y	START	END
[0, 0]	238	311	1177414643	4689
[0,-20]	324	200	4831	4870
[-20,-20]	113	196	4952	4992
[-20, 0]	108	303	5080	5120
[-20, 20]	106	415	5236	5276
[0, 20]	223	414	5366	5406
[30, 20]	405	411	5476	5516
[30, 0]	397	277	5717	5757
[30,-20]	393	163	5842	5882
[60,-20]	575	161	5957	5997
[60, 0]	576	268	6084	6124
[60, 20]	575	379	6200	6240
[60,-40]	527	48	6369	6409
[30,-40]	385	48	6488	6508

[0,-40]	197	42	6614	6654
[-20,-40]	71	39	6740	6780
[0, 0]	189	263	6884	7004

0515 SSM field of regard test.
0535 Test complete.
0540 Completing some final tests of HOWFS-DM registration.
0545 Closing dome.