

Caltech Optical Observatories / NASA Jet Propulsion Laboratory
Palomar Adaptive Optics

Palomar LGSAO Engineering Summary 10/12/06 UT

Daytime results:

1. Viswa, Renu, and Chris installing optical isolator and aligning laser. Found both sodium cells to be damaged.
2. Anna and Hal aligned LLT diagnostics bench to 660nm laser.
3. Jenny switched in Na dichroic.
4. HOWFS, LOWFS and PHARO co-focused.

Night log:

1900 AM and HP going to prime focus to align sky-viewing Pulnix on LLT.
2200 PF team returning for a break; proceeding with NGS test schedule.
2215 Moving to WDS74560 for NGS checkout.
2232 Test complete. Focus 58.23mm.
2240 Starting LOWFS spectral sensitivity test.
2759-1527-1: V=12.19, B-V=-0.2
2328 Starting Acq sensitivity test
0020 Done. Sending HP and AM to prime
0045 Aligning laser to BTO in Coude lab.
0120 Bringing team prime back to earth. Ready to propagate in dome.
0230 Done with BTO test. Opening dome and sending spotters out.
0300 Need to boresight telescope
0310 Found Raleigh central obscuration, ~3 arcmin to SE. (1/2 turn IN of north-western screw).
0330 Scanning etalons to search for 589nm.
0355 Finally found wavelength, by tuning 1.06 etalon.
0400 Focusing Acq and LLT.
Acq=12327; FWHM=16.0
LLT=11564; FWHM=16.0
0415 Tuning wavelength

		counts
1320	1064	
-315	2m5v	73
-325	"	53
-320	"	70
-310	"	55
-305	"	70
-305	7m30v	50
-305	7m29v	60
-305	7m28v	70
-305	7m27v	72
-305	7m25v	62
-305	7m26v	45
-305	7m27.5v	105

0435 Installing V filter. Laser power = 5.5W.
0441 Final laser on/off images: laser6, laser_sky2 (5s, V filter)
0443 Moving to calibrator: Landolt 96-235 (V=11.14)
taking landolt96-235_1, _2.

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0455 Moving to bright star near TYC 2375-0207-1. Aligning BTO
manually on red laser.
0505 Acquiring star.
0515 Laser shuttered due to ASCAM. Jumpering out ASCAM.
0535 Acquisition complete; taking PHARO images (no time to
optimize any of the servo loops).
0545 Shuttered laser for FAA compliance.
0550 Calling night.