

August 29, 2006 Palomar LGS IPT Meeting Notes

A. Bouchez, 8/29/06

Caltech: Bouchez, Cromer, Petrie, Moore, Shelton, Troy, Velur
Palomar: Doyle, Henning
JPL: Trinh

1. Announcements

- Please pay Antonin for LGS T-shirts if you have not already done so (\$7.28 each).
- We are still waiting to hear about funding for next year from JPL.
- Jenny is stocking up AO lab with cabinets, tools, fasteners, optics. Please let her know if you have requests (eg. replacement equipment for Palomar e-lab.)

2. Address any issues which came up during the laser move on 8/28

Report by Viswa on how it went:

- Move went well. Weighed bench, took it upstairs. Curtains were installed in afternoon.
- New platform worked fine, small chiller is one step down from previously, may not have the head to maintain pressure. This needs to be checked.
- Steve will install three new 208V circuits in the Coude lab before run, and extend the power cords on the new drivers.
- Laser was moved towards polar axis by 24", still isolated from platform.

3. September engineering run experiment schedule

We discussed v1.0 of the engineering schedule. The following issues were raised:

- Software tests Tue. afternoon may include nodding with the LOWFS (would need to perform small moves with telescope).
- LLT collimation adjustment may be best done by observing the out-of-focus laser image on the mesosphere.
- Installation of the LLT safety apertures will be Thu. or Fri. of this week, by HP.
- Time devoted to NGS tests is insufficient - probably need to observe stars of several different magnitudes. These tests depend on progress on software and reconstructors.
- Anna will take a look at LLT diagnostics bench space considerations on Wed. morning.
- AB needs to verify that spotters have been arranged.
- Key switch functionality has been changed. JC to check whether Standard Operating Procedures have been updated, and make revisions before run.
- We requested that AO be installed on telescope on Fri. 9/1. This is constrained by software work on AO system on Thursday, and holiday weekend. A. Pickles to contact observers to check if this is OK.

And updated version of the schedule is reproduced in Figure 1 below. For the most recent, please see http://www.oir.caltech.edu/twiki_oir/bin/view.cgi/Palomar/PalmLGS/Eng_060905.

Caltech Optical Observatories
Palomar Adaptive Optics

Palomar LGS AO test schedule
5- 7 September 2006 (local)

v1.1: 08/30/06 - AB

Test #	PDT start	PDT end	suns	12"	Test Name	12"	sunr	Obs mode	Target	Description / Prerequisites	Priority	Duration	Lead	Clearsky	Laser
09/04/06															
1	8:00	18:00			Laser performance optimization			N/A	N/A		1	10.00	EK	N	Y
2	19:00	22:00			BTO Coude alignment			NGS	V=3	Co-align 589/660 lasers, polar axis, collimated. Requires JC.	1	3.00	AB	N	Y
09/05/06															
			19:16	20:03	23:14	5:29	6:17								
1	8:00	10:00			Install LLT			closed	zen		1	2.00	RT	N	N
2	10:00	12:00			AO software testing			closed	zen	Telemetry tests? Acq?	1	2.00	TT	N	N
3	10:00	12:00			BTO software checkout			closed	zen	Test BTO software with 660nm laser on Q3 - need CSFL off.	2	2.00	JA	N	660
4	12:00	14:00			LLT alignment to 660nm laser			closed	zen	Need CSFL off.	3	2.00	AB	N	660
	14:00	14:30			status and safety meeting							0.50			
5	16:00	18:00			Test-fire laser in dome			closed	zen		3	2.00	AB	N	Y
	18:00	19:00			dinner							1.00			
6	19:30	20:00			AO Checkout			NGS	V=8	check seeing, NGS performance.	3	0.50	AB	N	N
7	20:00	22:00			LLT boresighting			NGS	V=3	Boresight to 200". Check repeatability vs. elevation.	1	2.00	HP	N	N
8	22:00	23:00			LGS characterization			LGS	zen	Project laser at zenith, focus, optimize & photometry.	1	1.00	AB	Y	Y
9	23:00	0:00			LLT image quality optimization			LGS	zen	Check collimation on LGS	1	1.00	AB	N	Y
10	0:00	0:30			Chopper background experiment			LGS	zen	Test HOWFS chopper background techniques	2	0.50	JR	N	Y
11	0:30	1:30			LGS acquisition (bright star)			LGS	V=10	Demonstrate acquisition procedures. Include LOWFS dither.	1	1.00	MT	N	Y
12	1:30	3:30			LGS performance (bright star)			LGS	V=10	Optimize...	1	2.00	AB	Y	Y
13	3:30	5:00			LGS performance (faint star)			LGS	V=16	Optimize...	2	1.50	AB	Y	Y
14	5:00	5:30			SSM field of regard			NGS	V=10		3	0.50	MT	N	Y
09/06/06															
			19:15	20:02	23:18	5:30	6:18								
	14:00	14:30			status and safety meeting							0.50			
1	16:00	18:00			Measure BTO transmission			closed	zen	Measure BTO transmission at 589nm (need IR blocker?)	3	2.00	AB		
	18:00	19:00			dinner							1.00			
2	19:30	20:00			AO Checkout			NGS	V=8	check seeing, NGS performance.	3	0.50	AB	N	N
3	20:00	22:00			LOWFS performance			NGS	V=16		2	2.00	MT	Y	N
4	22:00	23:00			LGS characterization			LGS	zen	Project laser at zenith, focus, optimize & photometry.	1	1.00	AB	Y	Y
5	23:00	23:30			Impact of Raleigh on LOWFS			LGS	V=16		2	0.50	MT	N	Y
6	23:30	2:30			LGS science demo observations			LGS	V=15	Image 2-3 science targets.	2	3.00	AB	Y	Y
7	2:30	4:30			Faint NGS performance			NGS	V=14		2	2.00	CS	N	N
8	4:30	5:30			NGS flat maps			NGS	V=8		2	1.00	CS	N	N

8/30/06 10:26 AM

Figure 1: Draft schedule for the first two nights of the September LGS engineering run.