

Palomar LGSAO test schedule
26-28 February 2007 (local)

v1.1: 02/23/07 - AB&JR
 Spotters requested 19:30-05:30 (on station 20:00-05:30)

Test ID	PDT start	PDT end	Test Name					Obs mode	Target	Description	Priority	Duration	Lead	Clear sky r0>10cm	Laser	
	suns	12°	LST	12°	sunr											
02/26/07			17:48	18:35	10:40	5:26	6:12									
1	10:00	13:00	Install LLT					closed	zen		1	3.00	Doyle	N	N	N
2	10:00	14:00	LGS computer setup and testing					closed	NA	Set up computer, test temperature control.	1	4.00	Guiwits	N	N	N
3	10:00	14:00	AO bench setup and checkout					closed	zen	Switch dichroic, co-focus WFS, setup chopper & delay generator.	1	4.00	Roberts	N	N	N
4	13:00	14:00	BTO setup and checkout					closed	zen	Test Q3, servo control.	1	1.00	Angione	N	N	660
	14:00	14:30	status and safety meeting									0.50				
5	14:30	15:30	Prepare laser for observing					closed	NA	Final alignment and testing of laser, control loops.	1	1.00	Tripathi	N	N	N
6	14:30	16:00	LLT alignment and checkout					closed	zen	Align stimulus laser to LLT.	1	1.50	Bouchez	N	N	660
7	15:30	16:00	Align laser to BTO					closed	NA	Align CSFL to BTO in Coude lab.	1	0.50	Bouchez	N	N	N
8	16:00	16:30	Test safety interlocks					closed	NA	Install barriers and test interlocks.	1	0.50	Cromer			
9	16:30	17:30	Laser alignment in dome.					closed	zen	Low/high power laser projection in the dome.	1	1.00	Bouchez	N	N	N
10	16:00	17:00	Calibrate PHARO					closed	NA	Focus PHARO, check pupil alignment, calibrate centroid offsets.	1	1.00	Burruss			
	17:30	18:30	dinner									1.00				
11	18:15	18:45	AO Checkout					NGS	V=8	Measure seeing, NGS performance.	2	0.50	Burruss	N	N	N
12	18:45	20:30	LLT boresighting					NGS	V=3	Check and correct LLT boresighting.	1	1.75	Moore	N	N	N
13	20:30	21:30	LLT image quality					NGS	V=3	Optimize LLT image quality.	2	1.00	Roberts	N	N	N
14	21:30	22:30	LGS acquisition and char.					LGS	zen	Project laser at zenith, focus, measure photometry.	1	1.00	Troy	Y	N	Y
15	22:30	23:30	Test laser frequency lock					LGS	zen	Test effects of etalon dither on HOWFS return.	2	1.00	Bouchez	Y	N	Y
16	23:30	0:30	Circular polarization experiment					LGS	zen	Repeat Jul. 06 experiment. Requires person at prime focus.	2	1.00	Bouchez	Y	N	Y
17	0:30	2:30	LGS bright star performance					LGS	V=10	Acquire star, optimize servo loops, measure Strehl & PSD	1	2.00	Roberts	Y	Y	Y
18	2:30	5:30	LGS science demo					LGS	V=15	Observe 2 science targets	1	3.00	Bouchez	Y	Y	Y
02/27/07			17:49	18:36	10:44	5:24	6:11									
	14:00	14:30	status and safety meeting									0.50				
1	14:30	15:30	Prepare laser for observing					closed	NA	Final alignment and testing of laser, control loops.	1	1.00	Tripathi	N	N	N
2	15:30	16:00	Align laser to BTO					closed	NA	Align CSFL to BTO in Coude lab.	1	0.50	Bouchez	N	N	N
3	16:00	16:30	Test safety interlocks					closed	NA	Install barriers and test interlocks.	1	0.50	Cromer			
4	16:30	17:30	Test-fire laser in dome.					closed	zen	Verify BTO alignment & Q3 interlock.	1	1.00	Bouchez	N	N	Y
	17:30	18:30	dinner									1.00				
5	18:15	18:45	AO Checkout					NGS	V=8	Measure seeing, NGS performance.	2	0.50	Burruss	N	N	N
02/28/07			17:50	18:37	10:48	5:23	6:10									
	14:00	14:30	status and safety meeting									0.50				
1	14:30	15:30	Prepare laser for observing					closed	NA	Final alignment and testing of laser, control loops.	1	1.00	Tripathi	N	N	N
2	15:30	16:00	Align laser to BTO					closed	NA	Align CSFL to BTO in Coude lab.	1	0.50	Bouchez	N	N	N

3	16:00	16:30	Test safety interlocks	closed	NA	Install barriers and test interlocks.	1	0.50	Cromer			
4	16:30	17:30	Test-fire laser in dome.	closed	zen	Verify BTO alignment & Q3 interlock.	1	1.00	Bouchez	N	N	Y
	17:30	18:30	dinner					1.00				
5	18:15	18:45	AO Checkout	NGS	V=8	Measure seeing, NGS performance.	2	0.50	Burruss	N	N	N

Proposed LGS experiments

1	0:00	1:00	LGS bright star performance	LGS	V=10	Acquire star, optimize servo loops, measure Strehl & PSD	1	1.00	Roberts	Y	Y	Y
2	1:00	4:00	LGS faint star performance	LGS	V=17	Optimize TT, measure Strehl & PSD for V=14,15,16,17	2	3.00	Roberts	Y	Y	Y
3	4:00	5:00	Rayleigh scatter characterization	LGS	zen	Quantify altitude of scattering components on WFS.	3	1.00	Bouchez	Y	N	Y
4	5:00	6:30	Off-axis acquisition procedure	LGS	V=10	Demonstrate off-axis NGS acquisition procedure	2	1.50	Bouchez	N	N	Y
5	6:30	7:30	UTT performance	LGS	zen	Investigate UTT performance. GOOD.	3	1.00	?	Y	Y	Y
6	7:30	9:30	LGS performance vs. airmass	LGS	V=10	Measure laser magnitude & Strehl at el=90,60,45	3	2.00	?	Y	Y	Y
7	9:30	11:30	LGS isoplanatism	LGS	V=10	Measure LGS and NGS isoplanatic angles	3	2.00	AB	Y	Y	Y

Proposed NGS experiments

1	0:00	2:00	Demo flexure compensation.	NGS	V=4	Good cloudy night test.	1	2.00	Bouchez	N	N	N
2	2:00	4:00	Leaky integrator testing	NGS	V=4	Requires stable seeing, clear sky.	1	2.00	Troy	N	N	N
3	4:00	7:00	Faint object NGS testing	NGS	V=15	Need a clear test plan.	1	3.00	Shelton	N	N	N
4	7:00	10:00	LOWFS performance	NGS	V=16	Continue LOWFS performance test from Sep. run	2	3.00	Roberts	Y	Y	N

Proposed closed-dome experiments

1	0:00	2:00	Adjust PF diagnostics bench filters	NA	zen	Using high-power laser in dome.	1	2.00	Moore	N	N	Y
2	2:00	5:00	Recalibrate BTO model	LGS	move	Extend current model to higher airmass.	1	3.00	Bouchez	N	N	660
3	5:00	7:00	Demo flexure compensation.	WL	move	Measure flexure of LOWFS using white light stimulus.	2	2.00	Bouchez	N	N	N
4	7:00	9:00	Measure LOWFS flexure	WL	move	Re-measure LOWFS flexure to verify repeatability.	2	2.00	Bouchez	N	N	N
5	9:00	11:00	AO software debugging and testing	NA	NA	Debug BTO logging, others...	3	2.00	Angione	N	N	N
6	11:00	13:00	Field-dependent LOWFS focus	WL	zen	Does not take into account telescope field curvature.	3	2.00	Roberts	N	N	N

Background experiments

1			Aircraft camera sensitivity	NGS		Gather statistics on camera vs. spotter aircraft sensitivity	2		Cromer	Y	N	N
2			RADAR sensitivity	NGS		Note range and SNR of all RADAR aircraft detections	3		Cromer	N	N	N
3			Laser diagnostics benches	LGS		Calibrate output of photodiodes & cameras.	2		Moore	N	N	Y
4			Understand IRCAM latency	LGS			2		Cromer	N	N	N