Palomar LGSAO Engineering Summary 04/28/07 UT Afternoon: - Laser 5.0W, stable. - BTO aligned and tested. Night log: 1910 Opening for twilight flats. 1940 Starting AO checkout. Trouble closing TT loop. Restarting AO. 1955 Restarting TCS to fix strange behaviour in TT loop. 1958 Jean resetting TCS VME crate. 2008 And again... 2017 Reverting to CM build: rm -f bin ln -s /home/aocm/ao3/bin 2020 AO offsets working again. 2035 AO checkout complete. Testing newly rebuilt version of build: Successful. Old version apparently corrupted?! 2040 Moving to zenith for laser projection. 2130 Checkout on V=10 star complete. Strehl ~16%. 2130 Decided to try to tune zernikes. 2200 Moving to Target 1. 2215 Moving back to SAO star and rotating cass ring. 2225 Back to Target 1. 2235 Acquisition complete, at cr angle=N+180 ZA=40, HO: 105 cts @ 100 Hz, NGS: V=13.9. @ 50". 2259 Moving to Target 2, at cr angle=N+90 2310 Acquired in NGS mode: $S\sim40\%$, open-loop FWHM=0.75". 2325 Acquisition complete. ZA=25, HO: 80 cts @ 100 Hz, NGS:11.9 @ 55". 2350 Moving to Target 3, cr_angle=Nup. 0005 Acquisition complete. ZA=15, HO: 100 cts @ 100 Hz, NGS:~16.5 @ 45" (random field star!) Nice correction. FWHM~0.2" 0032 Moving to Target 4, cr=208.81 0100 Acquisition complete. ZA=27deg, HO:140 cts @ 100Hz, NGS:??? @ 30" 0122 Moving to target 5, cr=335.8 0138 Acquisition complete. 0205 Moving to target 6. 0219 Acquisition complete. ZA=18deg, HO:115 cts @ 150 Hz, NGS:16.0 @ 16". 0235 Moving to NGS target M9... 0254 Moving to target 7, cr=245.80311 Acquisition complete. ZA=34, HO: 120 cts @ 100 Hz, NGS: 15.4 @ 45". Seeing deteriorating. 0338 Moving to target 8, cr=335.8 0350 Acquisition complete. ZA=15, HO: 110 cts @ 150 Hz, NGS:15.4 @ 35". Good performance. FWHM=0.15". 0423 Moving to target 9 0430 Shuttered due to spotter com problems. 0436 Acquisition complete. ZA=15, HO: 60 cts @ 150 Hz, NGS:~15 @ 20". 0500 Shuttering for FAA compliance.

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