Palomar LGSAO Engineering Summary 07/25/07 UT

Afternoon:
- Laser 5.4W, stable.
- BTO and LLT aligned and tested.

Night log:
2005 Opening dome
2015 Moving to SAO 64745 for AO checkout.
No video from acquisition camera.
2020 Moving back to zenith to debug.
Replaced Pulnix power supply.
2137 Back on sky. AO checkout on SAO 65794
Seeing 0.58" at V, Strehl = 82% in K!
2152 Going to zenith for laser propagation.
Laser 5.0 W.
2202 Projecting at zenith. Laser came in right on field stop, but acquisition camera not integrating. Jenny plugging in cable. Restarting AO. Integration still not working; could have to do with our jury-rigged video signal.
2307 Ready to project at zenith again with a hacked version of Acqview, allowing integration via telemetry server.
2312 Projecting at zenith. IDed LGS; but video too faint to optimize or measure spot size.
2330 Acquired LGS on HOWFS at zenith. ~170 cts @ 50 Hz.
2350 Adjusted chopper delay to 54400 mus. Raileigh fluctuations disappeared.
0000 Moving to CLIMPSE-C01
0004 Telemetry crash while taking a HOWFS background after having switched AO modes. Restarting TAO.
0010 Acquiring GLIMSE-C01
Unable to acquire ttref due to acquisition camera problems.
0040 Giving up on LGS targets. Moving to I19475+3119.
0050 Trouble acquiring due to chopper abnormal behaviour.
0057 Telemetry crash while taking HOWFS background. Failed to set log interval, then all telemetry stopped.
0105 Finally taking data. Dithers failing due to misundestanding on open-loop requirements. Taking some images manually.
0200 Moving to G70.7...
0300 Lost TT lock many (~6) times during observations. Unclear whether it was due to open-loop dither problems or telemetry problems.
0305 Telemetry crash. Restarting TAO. TAO showing errors... Not due to BTO logging.
0315 Telemetry crash again, while taking HOWFS background. Restarting TAO.
0325 Acquiring NGC 7331.
0340 Clouds are too thick to see LGS in either HOWFS or acquisition camera. Calling night for the laser.

0345 Moving to Uranus for NGS observations. Sky overcast, but seeing excellent.
0445 Quitting. Sky partly cloudy; laser power 4.5 W. Shutting down laser; covering LLT primary.