Palomar LGSAO Engineering Summary 09/19/07 UT

Afternoon:
- Laser power 6.8 W, stable.
- Problems with AO system stimulus - diagnosed as star/sky motor inoperable. Lowering AO system to replace motor. Motor found beyond limit switch. Manually reset and all seems fine.
- Starting up BTO: Coude ESP-300 controller didn't come up until 3rd power cycle. Symptom: BTO GUI hung.
- LLT alignment to stimulus laser went very smoothly. 589nm laser alignment not yet completed.

Night log:

1920 Spotters arrived late due to closed road in Rincon.
1920 Centering HOWFS DAD
Initial: a=-7/+3, b=-4/+6 (x0.25")
Step 1: a=-7/+4, b=-5/+4
Step 2: a=-7/+4, b=-6/+4
Reg. routine ran away. No way to abort. Killing TAO.
Step 3: a=-1/+9, b=?
Step 4: a=-2/+8, b=-7/+3
Step 5: a=-3/+7, b=?
Step 6: a=-5/+6, b=-5/+4
Tip/tilt is running away. May have centered 1 subap off?
Step 7: a=-5/+4, b=-5/+4
Step 8: a=-8/+2, b=? TT locking again.
Step 9: a=-3/+8, b=-4/+5
Step 10: a=-3/+8,
Step 11: a=-4/+7,
Step 12: a=-4/+6, b=-5/+4
Step 13: a=-5/+6
2050 DAD centered, but now reflective spot misaligned; causing vignetting on HOWFS.
2100 Giving up for now; Aligning 589nm laser to BTO.
2200 BTO alignment complete.
2200 Restarting DAD alignment.
Init: a=-4/+5, b=-6/+5
1: a=-5/+5, b=-5/+5
2: ...DAD adjustment screws hung up.
2230 DAD adjustment screw is broken.
0015 Calling night. Laser power 6.5W.