

June 11, 2007 LGS Facility IPT Meeting Minutes

A. Bouchez

Caltech: Angione, Bouchez, Cromer, Guiwits, Pickles, Roberts, Shelton
Palomar: Doyle, Henning, Tripathi

1. Laser safety

- A safety walk-through was done last Thursday. John H. distributed a list of recommendations (included below as Appendix A). AB and JR are invited to next meeting, on June 21 (conflicts with PALM-3000 meetings).
- RT, JC and JH are going to Table Mountain Observatory tomorrow for a demo of their infrared/radar automated safety system.
- JC has been authorized to spend 40 hr on SOP rewrite. First step is breaking up the current document into bite-sized pieces.

Other pending action items:

- AB to verify that FAA and Space Command don't require a manual log.
- AB to make a form for Jennifer to use.

2. Laser

Laser work last week:

- Renu attempted to recover 1.06 μm laser alignment which produce 26W. Basically unsuccessful. Laser maximum power still at 16W without mode locking, 10W with. Did not need to use polarizers or aperture for mode control.
- Ed arriving tomorrow afternoon, leaving Wed. 6/20.
- AB to request a write-up of optical design and justification from Ed.
- Will hold video conference at 8am Wed. to discuss proposed changes.
- AB to order amplified photocell for Na cell. Decided to test this first, before making optical changes.
- R residual astigmatism from spherical mirrors in SFG might explain the 1:3 elongation seen in the far-field of the 589nm beam.

Temperature control:

- CS: TE cooler controllers are intended to be stand-alone. If power is on to TE cooler box, then temperature control is on. However, with no water interlock, interruption in water flow could cause heating.
- However, the above is inconsistent with behavior last run. When PC temperature polling was stopped, KTP temperature appeared to go up.
- Recommend that we use linux temp. control next week, to avoid interference by use of the PC for diagnostics analysis.
- Chris offered to install red/green LEDs on temp control box to show status of temperature control loops. All agreed this was a good idea. Postpone until next trip up.

3. LGS computer

- Logging testing postponed to this week (SG).
- SG to check code with CS:
 - Should be able to turn on and off LGS logging system with no change in temperature control loop status.
- Rick & Jeff were introduced to LGS computer code last run.

4. BTO

- The spare ESP300 motor controller is probably in the JPL AO lab.
- Request from John: Please bring one spare CMA back to JPL from Palomar (AB)
- John testing motor reset code. "reset all" currently does not send motors to default positions.
- Grounding Q3 at BTO computer could improve efficiency of servo loop testing. A single resistor from sum signal to negative voltage is probably best. JH to install; do not need capability for ~3 wks.

Other pending action items:

- AB and JA will go up to Palomar sometime later in June to test BTO.
- SG and JA will write up a backup operating mode and spares plan for BTO and LGS computers.
- AB still waiting on shop for the new LLT primary cover.

5. Laser diagnostics

Laser diagnostics statu from A. Moore email 6/11/07:

- Michael starts this Tuesday and will be here for 10 weeks. He'll be working on the diagnostics data and I hope, the shack hartmann assembly. He'll be joining the meetings from next Monday onwards.
- The coude panels are ready.
- The LLT enclosure: Updated drawings are still needed for 3 of the panels I haven't finished, and will try to do this later this week

Other pending action items:

- Install Coude enclosure (AM)

6. Other items

New PHARO computer tested during the last NGS observing run, but does not yet work. JPL AO group has informed Cornell that they cannot support a Windows machine. All work on this computer needs to go on the AO schedule. Cornell group is working on an AO system interface, with some support from Thang. It is possible they will attempt to port everything to linux, which would seem preferable.

LAMP shows up 26-27 June, and schedule for testing in lab will be very tight. Need to settle what day instrument shows up.

Kibblewhite/Dekany LGS night allocation will be fully used up at the end of 07A. LGS engineering nights assigned in 07B are assigned from observatory engineering budget. No decision yet on whether any will be needed in 08A and beyond.

Meeting adjourned at 9:55am.