February 5, 2006 LGS Facilty IPT Meeting Notes

A. Bouchez 2/12/07

Caltech: Angione, Bouchez, Cromer, Petrie, Moore, Roberts. Palomar: Henning.

1. Punch lists for all subsystems

Items in blue are postponed until after the Feb. engineering run.

1.1. Laser (no changes to list since last week)

- Optimize both lasers, particularly 1.06 (RT)
- Equilibrate cavity lengths using AOM performance as feedback (RT)
- Protect water lines (RT). Renu to order right angle fittings today.
- Install new data logging card in servo control box. (CS next week).
- Reduce frequency dither step size. (RT/CS next week)
- Order replacement knob for PZT etalon mount, install (RT)
- Adjust power display gain controls (RT/CS next week).
- Write up etalon calibration results (RT)

1.2. BTO

- Clean all other optics. (AB come up with plan by 2/19. Will do 2/21)
- Replace M3 controller and install heating device. JH has found vendor for heater. SG will bring old box back to JPL this week. (JH)
- Restore BTO FSM resolution to original values (JH)
- Fix M1 run-away when light is blocked (JA)
- Update operating manual (JA).
- Recalibrate BTO motor positions (JA/AB, 2/22 AB to check with Joe and Bob).
- Improved BTO GUI. John handing off to Steve, decided not to persure for the moment.
- Testing of solid-state disk. Disk works fine, AD driver needs work. Writing better driver for LGS computer will address this. (SG)

1.3. LGS Computer

- Implement temp on/off control of individual chanels (SG).
- Write up data paths and operating modes. (AB)
- · Working on getting photodiode communications. Steve still working on this.
- Order of work (SG):
 - o Get communication working with servo box "brick".
 - o Develop photodiode FUI.
 - o Log temperatures and photodiode value to AODR.
 - o Implement outer frequency servo loop.
 - Write LGS ADC driver (for diag. bench photodiodes)
- Do we need remote reboot capability? No.
- If LGS computer is ready to go up to Palomar on 2/22, Steve could come up to install. Antonin to order shelving.

1.4. Laser diagnostics

Punch list items based on 2/5 email:

- SW models for:
 - o 2-inch pulnix mirror for sky viewing mode. One completed.
 - Stage for beam block and 589nm filter at coude
- Cardboard layout of baffle for coude
- Cardboard layout of enclosure for prime focus

• SH assembly and calibration.

At Palomar (Feb 22-24, will coordinate with Renu)

- Swap wedges on LLT bench
- Install various items made above
- Adjust filters at coude
- Adjust filters at prime (NB this can only occur on Monday of run)
- Silastic all LLT components when we're happy with their position-
- otherwise they will move during installation
- Draw up cable layout (FINAL) with Steve for John Henning and Palomar staff.
- Labview software for displaying cross sections etc
- Calibration- power for PDs and scale for images
- AB to install new Coude BS mount on 2/21.

1.5. Safety systems

- Modify Coude room door sign circuit to allow chillers to run on "green". (JH) AB to ask Ed about his concerns.
- Implement fix for client DS9 crashes (JC).
- New goggles have arrived. Small ones don't fit. Renu will replace.
- Laser safety training for CIT employees. John will find DVD.