February 5, 2006 LGS Facility 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 persue 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):
     - Get communication working with servo box "brick".
     - Develop photodiode FUI.
     - Log temperatures and photodiode value to AODR.
     - 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:
     - 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.