

March 14, 2006 Palomar LGS IPT Meeting Minutes

A. Bouchez, 3/17/06

Caltech: Shelton, Troy, Roberts, Bouchez, Petrie, Cromer, Pickles, Morrissett

Palomar: Henning, Doyle, Thicksten

Chicago: Kibblewhite

1. Reiterate priorities for 13-15 April engineering run

1. Close HOWFS loop on LGS at zenith.
2. Off-zenith LGS science demonstration.
3. Test aircraft safety cameras against spotters.
4. CSFL-3 upgrade.

2. Tasks in support of LGS engineering run priorities

Close HOWFS loop on LGS at zenith

1. Improved laser stability at LLT (AB&CS to test FSM at Palomar on 3/22/06)
 - a. Install FSM at M1b (AB)
 - b. Check quad cell signal level with new lasers (AB/CS)
 - c. Design and build attenuator box (CS – build by Wed. 3/22/06)
 - d. Test FSM control loop (CS)
 - e. Implement anti-backlash feature (CS)
 - f. Tune FSM control loop (CS)
 2. New LLT focus mechanism
 - a. Design and install hardware (HP – expect to complete by 4/7)
 - b. Update software (JA)
 3. Improved LLT optical quality
 - a. Design and install 10" mirror cell (HP)
 - b. Install and collimate telescope (HP)

Note: AB to check with R. Royce on mirror status.
 4. Verify HOWFS timing module performance (MT – late next week?)
 5. Verify laser alignment and performance (EK – coming out last week of April)
 6. LGS operations checklist (AB)
- Note: AB to check with FAA for letter of non-objection.

Off-zenith LGS science demonstration

7. Off-zenith BTO control
 - a. Verify open-loop control software (JA)
 - b. Calibrate open-loop mirror positions (AB)
8. DAC upgrade (TT)
9. Fix TT offload problem (TT)
10. Implement LGS focus control loop (CS,MT – meeting this Friday at JPL)
11. Improve LGS automation scripts (AB)

Test aircraft cameras against spotters

12. ASCAM and IRCAM software tasks (AM)
 - a. IRCAM differencing now implemented.
 - b. Priorities: Cloud discrimination, 1-pt calibration.

CSFL-3 upgrade

Will hold scheduling meeting once Viswa has returned. May need to buy small chiller for testing at Palomar.

3. Announcements and discussion items

- 18" LLT primary mirror blank arrived from Chicago. Waiting on Xinetics SiC quote before choosing vendor for figuring.
- LLT installation will take place Tuesday 4/11 (K. Matthews testing IR secondary on 4/10)
- AB to check with FAA for letter of non-objection.
- AB to order V filter for acquisition camera.
- SWIFT team has requested we investigate rotating OAP relay around telescope optical axis (changing angle of beam to FM3). AB and CS to pursue once SWIFT gives us the specs.