

Palomar LGSAO test schedule  
12 - 14 June 2006 (local)

v1: 06/03/06 - AB

| Test #          | PDT start | PDT end | suns                             | 12°   | LST   | 12°  | sunr | Obs mode | Target | Description / Prerequisites                          | Priority | Duration | Lead | Clear sky | Laser |
|-----------------|-----------|---------|----------------------------------|-------|-------|------|------|----------|--------|------------------------------------------------------|----------|----------|------|-----------|-------|
| <b>06/12/06</b> |           |         | 20:05                            | 21:01 | 17:39 | 4:33 | 5:29 |          |        |                                                      |          |          |      |           |       |
| 1               | 8:00      | 12:00   | Install AO system & LLT          |       |       |      |      | closed   | zen    |                                                      | 1        | 4.00     |      | N         | N     |
| 2               | 12:00     | 14:00   | Demo BTO control 1               |       |       |      |      | closed   | slew   | Demo open-loop alignment and control while slewing.  | 2        | 2.00     | CS   | N         | HeN   |
| 3               | 14:00     | 14:30   | Status meeting                   |       |       |      |      |          |        |                                                      |          | 0.50     |      |           |       |
| 4               | 14:30     | 16:00   | Demo BTO control 1               |       |       |      |      | closed   | slew   | Demo open-loop alignment and control while slewing.  | 2        | 1.50     | CS   | N         | HeN   |
| 5               | 16:00     | 18:30   | Demo BTO control 2               |       |       |      |      | closed   | slew   | Demo control with Na laser on/off.                   | 1        | 2.50     | CS   | N         | Na    |
|                 | 18:30     | 20:30   | dinner                           |       |       |      |      |          |        |                                                      |          | 2.00     |      |           |       |
| 6               | 20:30     | 21:00   | AO Checkout                      |       |       |      |      | NGS      | V=8    | check seeing, NGS performance.                       | 3        | 0.50     | AB   | N         | N     |
| 7               | 21:00     | 23:00   | LLT boresighting                 |       |       |      |      | NGS      | V=3    | Boresigh to 200". Check repeatability vs. elevation. | 1        | 2.00     | HP   | N         | N     |
| 8               | 23:00     | 0:00    | LGS acquisition                  |       |       |      |      | LGS      | zen    | Project laser at zenith, focus, measure photometry.  | 1        | 1.00     | AB   | Y         | Na    |
| 9               | 0:00      | 1:00    | Laser polarization               |       |       |      |      | LGS      | zen    | Measure effect of laser polarization on return.      | 2        | 1.00     | CS   | Y         | Na    |
| 10              | 1:00      | 3:00    | LGS off-zenith acquisition       |       |       |      |      | LGS      | V=12   | Demonstrate LGS off-zenith acquisition procedure.    | 1        | 2.00     | AB   | N         | Na    |
| 11              | 3:00      | 4:45    | LGS science demo observations    |       |       |      |      | LGS      | V=15   | Image one science target (V~15), no dithering.       | 1        | 1.75     | AB   | Y         | Na    |
| <b>06/13/06</b> |           |         | 20:06                            | 21:02 | 17:42 | 4:33 | 5:29 |          |        |                                                      |          |          |      |           |       |
| 12              | 12:00     | 14:00   | Measure UTT FSM noise            |       |       |      |      | closed   |        |                                                      | 2        | 2.00     | MT   | N         | N     |
| 13              | 14:00     | 14:30   | Status meeting                   |       |       |      |      |          |        |                                                      |          | 0.50     |      |           |       |
| 14              | 14:30     | 18:30   | <i>contingency</i>               |       |       |      |      |          |        |                                                      |          | 4.00     |      |           |       |
|                 | 18:30     | 20:30   | dinner                           |       |       |      |      |          |        |                                                      |          | 2.00     |      |           |       |
| 15              | 20:30     | 21:00   | AO Checkout                      |       |       |      |      | NGS      | V=8    | check seeing, NGS performance.                       | 3        | 0.50     | AB   | N         | N     |
| 16              | 21:00     | 22:30   | Demo LOWFS dithering             |       |       |      |      | NGS      | V=8    | Demonstrate dithering with LOWFS on NGS.             | 2        | 1.50     | JR   | N         | N     |
| 17              | 22:30     | 23:30   | LGS acquisition                  |       |       |      |      | LGS      | zen    | Project laser at zenith, focus, measure photometry.  | 1        | 1.00     | AB   | Y         | Na    |
| 18              | 23:30     | 1:00    | HO loop performance optimization |       |       |      |      | LGS      | V=12   | Optimize HO loop performance on LGS.                 | 2        | 1.50     | JR   | Y         | Na    |
| 19              | 1:00      | 3:00    | LGS science demo observations    |       |       |      |      | LGS      | V=15   | Image one science target (V~15), with dithering.     | 1        | 2.00     | AB   | Y         | Na    |
| 20              | 3:00      | 4:45    | Performance vs. NGS magnitude    |       |       |      |      | LGS      | V<18   | Measure LGS performance on R~12,14,16,18 stars.      | 2        | 1.75     | AB   | Y         | Na    |
| <b>06/14/06</b> |           |         | 20:06                            | 21:02 | 17:46 | 4:33 | 5:29 |          |        |                                                      |          |          |      |           |       |
| 21              | 12:00     | 18:30   | <i>contingency</i>               |       |       |      |      | closed   |        |                                                      | 2        | 6.50     |      | N         | N     |
|                 | 18:30     | 20:30   | dinner                           |       |       |      |      |          |        |                                                      |          | 2.00     |      |           |       |
| 22              | 20:30     | 21:00   | AO Checkout                      |       |       |      |      | NGS      | V=8    | check seeing, NGS performance.                       | 1        | 0.50     | AB   | N         | N     |
| 23              | 21:00     | 22:00   | HOWFS-laser TT correlation       |       |       |      |      | LGS      | V=8    |                                                      | 1        | 1.00     | MB   | Y         | Na    |
| 24              | 22:00     | 4:45    | <i>contingency</i>               |       |       |      |      |          |        |                                                      |          | 6.75     |      |           |       |

**NGS backup experiments**

|   |      |      |                                |     |       |  |   |      |    |   |   |
|---|------|------|--------------------------------|-----|-------|--|---|------|----|---|---|
| 1 | 0:00 | 1:00 | Flatmap test                   | NGS | stars |  | 3 | 1.00 | CS | N | N |
| 2 | 1:00 | 2:00 | Acquisition camera sensitivity | NGS | stars |  | 2 | 1.00 | AB | Y | N |
| 3 | 2:00 | 4:00 | LOWFS bandwidth vs. NGS mag.   | NGS | 8-18  |  | 2 | 2.00 | AB | Y | N |