

Cassegrain ADC

Monthly Report, August 20, 2003

I. Narrative

A. Summary

We are currently completing the preliminary Mechanical Design and optical evaluations in preparation for the Preliminary Design Review(PDR), now tentatively scheduled for mid October. Vacation schedules and other minor factors have delayed the plans for the PDR for about one month.

B. Technical Status

1. Overall Assessment of Scientific and Technical Status

The optical/mechanical design is near complete for this stage.

2. Accomplishments of the Past Month

Drew Phillips has corrected problems with the Zemax models of LRIS that we got from CARA and has evaluated the effect of the ADC on the performance of LRIS. His preliminary work shows the ADC will have no significant effect on the size of the LRIS images on either the red or blue sides.

We have informed Corning that we will not be able to take advantage of their offer of a 5% reduction in cost if we order before September 30, 03. Zygo has inquired as to when we might be ready for them to fabricate of prisms.

FEA analysis of the mechanical structure highlighted areas needing modification. These have been modified. Cell design and support structure are complete pending final analysis. Defining point locations have been specified and agreed to between Lick and Keck. We have a conceptual design of jack stand. Vernon Wallace is working on finalizing the preliminary design of the ball screw assembly, cladding, defining point attachments and the jack stand.

Barry Alcott has completed a schematic diagram of the proposed electronic control system for the ADC. The diagram is available on the web at:
<http://loel.ucolick.org/MANUAL/ADC/SCHMATIC/ADCBLOCK.SCH.PDF>

3. Problems

Changes from the conceptual design have contributed to the delayed schedule a little.

C. Schedule and Budget Status

1. Overall Assessment of Progress and Expenditures

We have slipped the schedule by about a month and are little under budget at this time.

2. Problems –none to report

D. Proposed Actions Regarding Problem Areas

1. Scientific or Technical
2. Schedule
3. Budget

E. Anticipated Accomplishments in the Next Month

We expect to complete the preliminary design by mid Sept and start preparation for the PDR

F. Other Issues and Information Deemed Essential to Include

II. Schedule

- A. Current Schedule -attached
- B. Graph of Earned Value -attached

III. Confirmation of Amendment of Project Schedule and Milestones – at this time we believe we will finish near the middle of October.

IV. Confirmation or Amendment of Project Budget –We requested and received a \$2,000 increase to the project budget to cover fixing the LRIS Zemax model.

V. Project Financial Summary –attached. At the end of July we had expended \$25,887 of a approved total of \$85,880 for Preliminary Design Phase.