

Cassegrain ADC Team Meeting

6/4/03, 2:00PM, Engineering Conference Room

1. Cost codes should be established today. They are published with the Work Plan on the web site
2. The Schedule, which is also attached to the Work Plan, shows that Optical Design is on the critical path for the Preliminary Design (PD) phase. At the completion of the PD phase the optical design will be complete to the point we know the quality and size of the quartz we will need, the specifications of the optical surfaces, the optical performance and the implications of the design to the performance of LRIS, and the required tolerances.
3. The Requirements Document (RD) is due from CARA (Sean Adkins)

ACTION: Drew will contact Sean to determine the status and content of the RD.

4. Section 2.2 of the Work Plan lists the information needed from CARA for the PD phase.

ACTION: David C will remind Sean of this need and ask for a schedule.

5. Drew thinks he can have a majority of the Optical design complete in about 3 weeks
6. The thickness of the prisms was discussed. While increased thickness will increase the optical losses, the effect is minor. The largest effects of increasing thickness are mechanical, and cost. Within reasonable bounds the mechanical stress resulting from handling does not change very much.

ACTION: David Hilyard will further investigate the fabrication and cost implications of the thickness of the glass

7. The mechanical design will evolve following the Optical Design. Considerable preliminary work has been done and Vern has sketches of one method of mounting the prisms.

ACTION: Joe will review drawings with Vern in the next couple of days

8. Vern will investigate three driving screws for the prisms vs. a single one.
9. Drew noted that there may be a good reason to tilt the prisms actively. The telescope produces astigmatic images as a result of its design and this astigmatism could be partially compensated by tilting the prisms up to 4 degrees. This would add a stage to the ADC and it may be mechanically difficult.
10. Storage and handling of the ADC will be part of the PD phase study

ACTION: Drew will investigate the optical benefits to actively tilting the prisms.

11. The electrical design will be very similar to DEIMOS. One exception is that we may propose to use solid state relays in place of the switches that cut power to the stage(s) in the case that it runs through the software limit switch.
12. We will recommend in the PD phase what software controls and capabilities will be accessible to the astronomer and operators through the GUI. One version would have only an OFF/ON switch and diagnostics telling where the prisms are and their velocity. The position of the ADC will be recorded in the FITS header of the images
13. The PD phase will not deal with where the prisms will be coated.
14. Next meeting

ACTION: The next meeting is scheduled for June 18th in the same location and at the same time.