ADC team Meeting

July 30/03

Present

Will Deich, Joe Miller, Drew Phillips, Barry Alcott, Vernon Wallace, David Cowley

Action Items from Previous Meeting

David Cowley sent CARA a summary of our concerns with the Requirements Document. Sean phoned after receiving the comments and said he was first going to work on the ICD and then the Requirements Document. We have since received a draft of the ICD

Optics

Drew is starting to work on preparation for the PDR. He is also trying to run the CARA and CIT optical models of LRIS. So far he gets very large image spots at the focal plane, indicating the ZMAX models we received for CARA are not correctly predicting the performance of the spectrograph. He will go through the Code5 listing to see if he can find the problem in the ZMAX model. He will.

Action: Drew will contact both CIT (Chuck Steidel) and CARA (Sean Adkins) about the problems with the computer models

Joe asked if we could use one grade lower quartz (grade F) and further save money on the glass. There may be other problems with using this grade of glass.

Action: Drew will further investigate the glass properties of the lower grades of material.

Mechanical

Vern reviewed the mechanical design. Joe suggested that rather than use ground flats on the outside diameter of the glass to register them in rotation, we use a glued on tab. Vern will look at the design of this tab.

Action: Vern will update his task list for the meeting minutes and David will add other outstanding non mechanical design tasks.

Electronics

No report.

Software

Action: Will will contact CARA and ask about what flavor of computer they would like to see drive the ADC. It is possible with the use of flash memory, to use a very small CPU.

At the next team meeting we will review when to hold the PDR.

Outstanding items for the PDR (not including prep for the PDR)

Complete mechanical design

1. Complete mechanical design
   a. Prism cells – revise design for glue on index, modify as required for structural stiffness – 1 day
   b. Slide assembly – specify ball slides, modify as required for structural stiffness - 1 day
   c. Ball screw drive assembly – specify screw, complete bearing design to fit in space – 1 day
   d. Gearing and drive motor assembly – specify belt, finish with proper pulleys, adjustment method, and attachment to structure – 1 day
   e. Hardpoint attachments, location and mounting – location is set, need to attach to structure - 1 day
   f. Cladding – to do - 2 days
   g. Limits, fiducals, encoders – specify encoder, design fiducal mounts – 1day
   h. Electrical enclosure and cooling – 3 days
2. Structural analysis of mechanical design – Jerry should have first run of basic structure tomorrow
3. Confirm final optical parameters with Drew Phillips – to do
4. Design of handling fixture – to do, Drew M providing information tomorrow – 1 wk
5. Confirm assembly to ICD – to do – 1 days
6. Specification of mechanical performance – to do – 1 day
7. Detailed cost estimate – to do - ?

Add LRIS (red and blue?) to the ZEMAX model. We need a working LRIS ZEMAX model to do this.

Review updated Requirements Document and decide what additional work needs to be done as a result of that document for the PDR.

Review the charge to the PDR committee and decide if additional work will need to be done.

Update budget estimate

Update project schedule