ADC Team Meeting

July 16, 2003

Present

Will Deich, Drew Phillips, David Hilyard, Barry Alcot, Vern Wallace, Jeff Lewis, David Cowley

Keck Requirements Document

We had a video review with Keck of this document on July 8th.

Action

David Cowley will send a summary of the points of concern about the document to Keck tomorrow.

Optics

David Hilyard received a quote from Corning for Grade D quartz. The price is about $78,000 less than the one better grade and the delivery time is reduced considerably.

Drew Phillips investigated using grade D homogeneity quartz for the ADC prisms instead of grade E. He found that the image growth was about 0.5 microns. The normal spot size is of order 100 microns, thus going to the lesser grade will not cause significant problems.

Mechanical Design

Vern Wallace presented the mechanical design to date. He is proposing using two ball slide rails and one roller screw for each of the prisms. The ball screws would be driven by a single servo motor. The prisms would be held in their cells using a three point radial and three point axial mount. The structure would be steel to reduce CTE problems.

Drew would like to see the rail/ slide system mocked up to be sure there will be no sticking problems with what is proposed

Electronics

Barry looked into the connectors proposed by Keck in the requirements document. They will be between $50 to $250 more than the ones we current use. The additional project cost will be determined once we know the number of connectors required by the design.

Software

Will Deich is looking at flash memory based control systems for the ADC motor control. Such a system could be considerably smaller than the one assumed previously.