

bath (the actual optical design is similar to the 1<sup>st</sup> FDIRC prototype). Removing side reflections is highly desirable in the reconstruction as it avoids introducing ambiguities in the pattern recognition. They consider a FDIRC separated quartz-based camera design as a fall back solution. Though challenging, the project was well thought out. It does not require any internal reworking of the bar box. The physics return from a successful DIRC in GlueX is well worth the effort and supports a program of significant interest to DOE.”

Concerns raised by the committee included the following:

- Large area LLAPD MCP detectors may not be available any time soon. In addition, the present LLAPD detectors strip readout may not be suitable for high background.
- Stress on the window when the bar box is oriented vertically may be an issue, although the initial FE analysis study of stresses on the quartz window showed that the vertical design would work.

Based on these recommendations and comments, with the concurrence of DOE, SLAC will provide four bar boxes to GlueX for the program described in your proposal as soon as it can be arranged. We encourage you to begin discussions with appropriate members of the committee as soon as practical to understand how to implement this decision. It should be realized the SLAC has no experience shipping bar boxes offsite, so careful engineering will be needed from you to insure that the boxes make it to you intact. I also understand that the GlueX collaboration may be considering doing a significant amount of additional work at SLAC, including attaching wedges to the bar boxes, before shipping boxes to JLAB. The level of available SLAC support for bar box modifications and related use of SLAC facilities, such as the clean room, will need careful evaluation for feasibility and cost. This work would have obvious implications for the shipping time scale.

It should be noted that there were other competing proposals from ePHENIX and LHCb for use of bar boxes on a longer time scale than GlueX and with unresolved feasibility questions. While we are providing four bar boxes for the full duration of the GlueX program, we do suggest that GlueX remain aware of use possibilities by other experiments at a later time, and attempt to maintain the viability of all bar boxes for the long term.

We apologize that the steps of this decision making process has taken longer that we had hoped. We thank you for your interest in our solicitation, and for thinking about how to take advantage of the opportunities that these bars provide. If you have any questions at all, please get back to me, and/or members of the panel. We sincerely hope that you will be successful in your GlueX DIRC based PID fabrication program and look forward to interacting with you as you put together a final plan for shipping the boxes.