

Dear LCRD contact person or UCLC project leader,

We would like to update you on the outcome of the recent review of the linear collider accelerator and detector R&D proposals, which took place on September 9 and 10, under the auspices of the U.S. Linear Collider Steering Group (USLCSG). The membership of the review committees, the charge and guidance to the committees from the USLCSG, and the procedures under which the reviews were carried out, are provided in the two attachments appended to the end of this message.

Generally, the reaction of the review committees to the LCRD and UCLC proposals was quite positive. The committees found much of the work to be of high quality, well-focused on the current R&D needs of the linear collider, and worthy of support by the funding agencies. This is an excellent start to a significant expansion of the role of universities in preparing for the work of building a linear collider accelerator and detector.

Following the USLCSG guidance, the reviewers provided a categorization of all proposals into rank-ordered groups. The detector review committee prioritized the 36 detector proposals requesting funding into the following categories, in order of priority:

detector proposals	
“tier 1”	24
“tier 2”	5
“defer”	5
“drop”	2

For most of the proposals, the committee also provided some additional comments pertinent to the ranking.

The accelerator review committee prioritized the 37 accelerator proposals into the following categories, in order of priority:

accelerator proposals	
“rank 1”	2
“rank 1.5”	3
“rank 2”	9
“rank 2.5”	4
“rank 3”	8
“rank 3.5”	4
“rank 4”	7

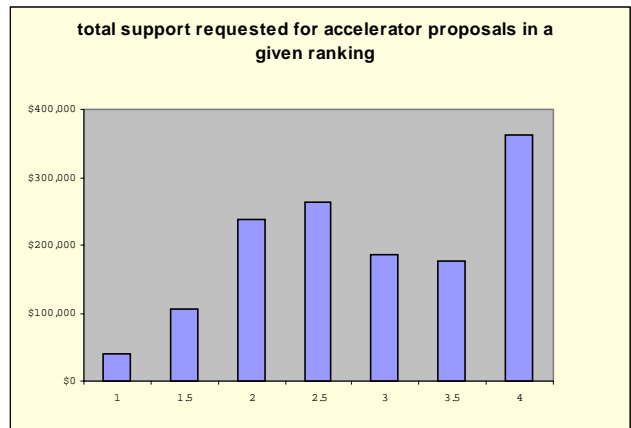
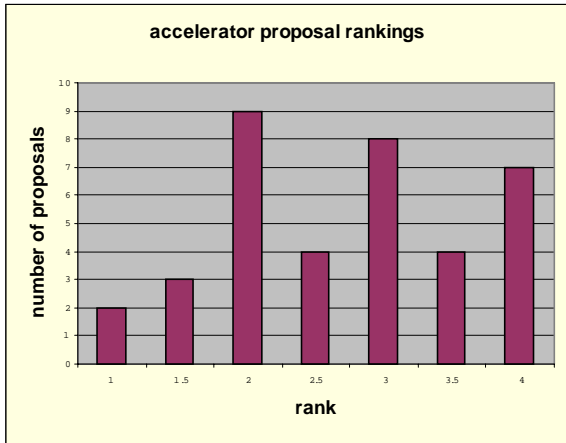
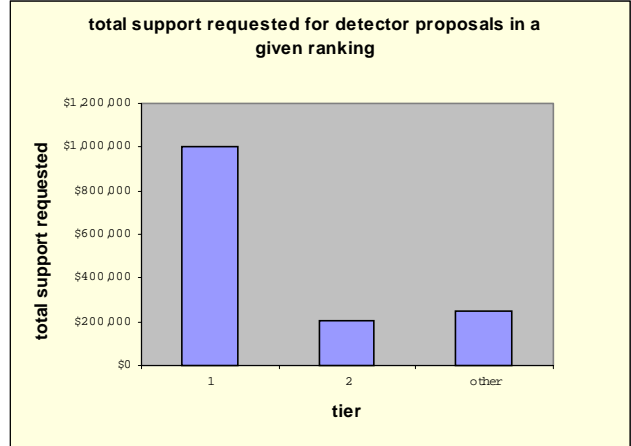
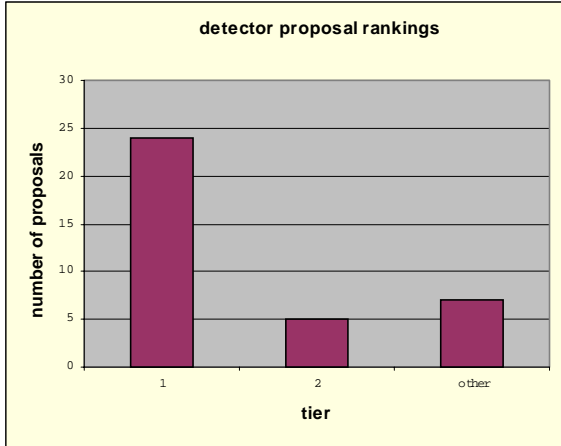
For the “lower-ranked” proposals, i.e., rank 3.5 or lower, the committee provided some additional comments pertinent to the ranking.

Graphs of the requested funding per ranking category vs. rank for the accelerator and detector proposals can be found at the end of this letter.

The proposal organizers will be in touch in the very near future with each contact person or project

leader individually, to communicate to them the review committee's rank and comments on their specific proposal, and to discuss the next step.

Your friendly LCRD and UCLC proposal organizers,  
Dan Amidei, Gerry Dugan, George Gollin, John Jaros, Andreas Kronfeld, Usha Mallik, Ritchie Patterson, Joe Rogers



Number of subproposals and project descriptions vs. evaluation by reviewers (left plots); total funding requested by all proposals with the same ranking by the review panels.

## **Report to the U.S. Linear Collider Steering Group September 18, 2002**

On September 9-10, the Review Committee discussed all the proposals. We had questions about several of the proposals which we asked via email and a few phone calls. We followed the charge (see below) and ranked each of the proposals. There was not enough time to evaluate the details of the funding requests. We concentrated on the year one funding to put the DOE and NSF supported proposals on a more equal footing. In our rankings, we ignored from which funding agency the proponents asked their funds. We assume that all proposals plus any new ones will be reviewed next year. The evaluations represent a consensus of the Committee - there were always rather uniform reactions to the proposals.

We thank the proponents and the various organizing committees for their efforts in preparing these proposals. For the future, we have the following recommendations:

1. At least a week for the Committee to have the final versions of the proposals.
2. The FTE levels of all proponents should be included in future proposals.
3. We are aware that some of the proposals overlap with activities going on elsewhere. We encourage closer cooperation nationally and internationally to avoid unnecessary duplication and to benefit from existing knowledge. We request proponents in the future to indicate clearly the degree of their interactions with other groups in the U.S. and internationally.

The Review Committee consisted of:

Howard Gordon (BNL) (Chair)

Rolf Heuer (Hamburg)

Steve Olsen (Hawaii)

Mike Roney (Victoria)

Sally Seidel (UNM)

Hitoshi Yamamoto (Tohoku)

The charge was:

Prioritize the elements of the proposals in the light of the R&D needs of the worldwide linear collider effort. Considerations entering into the prioritization should include the relevance and importance of the work to the perceived needs of the Linear Collider detectors, the lead-time requirements for the proposed R&D, and the experience and track

record of the proposers. Novel ideas which have potential to impact the detector designs significantly should be identified with favor.

\*Coordinate the elements of the proposals by identifying areas of overlap, within a single consortium proposal, between the proposals, and within the international R&D program. Suggest possible realignments of the efforts which would eliminate unnecessary redundancy.

The committee should refer to the document "Linear Collider Detector R&D" by the international linear collider detector R&D committee chaired by R. Heuer.

There is additional guidance (besides the charge) from the Steering Group on what they would like coming from this review.

They would like you to provide:

1. A rating for each proposal (e.g. excellent, good, satisfactory, or poor) based on factors such as clarity of goals, feasibility, strength of the participants, etc.
2. A categorization of the relevance of each proposal (e.g. critical R&D, important R&D, useful R&D, or irrelevant).
3. A rank-ordering of the proposals. This rank-ordering likely will be a grouping of the proposals into tiers (e.g. first priority, second priority, defer, or drop). You may need to indicate why you recommend to drop a proposal, but everyone recognizes you will not have time to write much verbiage.

## **LCRD and UCLC Proposal Review**

**Fermilab, September 9<sup>th</sup> and 10<sup>th</sup>, 2002**

**Norbert Holtkamp (ORNL) (Chairman)**

**Phil Burrows (Oxford)**

**Jean Delayen (JLab)**

**Tom Himel (SLAC)**

**Hugh Montgomery (Fermilab)**

**Katsunobu Oide (KEK)**

## 1. Introduction

The University Consortium for Linear Collider R&D (UCLC) and the Linear Collider Research and Development Working Group (LCRD) are making proposals to NSF and DOE for funds for universities to do Linear Collider R&D. In order to apply for appropriate funding the following document “ A University Program of Accelerator and Detector Research for the Linear Collider” was written and presented to the review panel members on September 6<sup>th</sup>. The committee members want to express their appreciation for the excellent work in preparing these proposals and organizing the review and the review process. It was a pleasure for all of us to participate in this review..

This document provided to the review team is divided into an Accelerator part and a Detector part, which is reviewed by another group. This group has reviewed 37 proposals in the accelerator R&D section, that ask for funding.

The charge to the committee was:

1. Prioritize the accelerator-related elements of the proposals in the light of the R&D needs of the worldwide linear collider effort. Considerations entering into the prioritization should include the relevance and importance of the work to the current generation of linear collider projects, and the experience and track record of the proponents.
2. Co-ordinate the accelerator-related elements of the proposals by identifying areas of overlap, within a single consortium proposal, between the two proposals, and with the international R&D program. Suggest possible realignments of the efforts, which would eliminate redundancy.

Additional guidance suggested that the committee should rank the proposals. This additional guidance is attached in Appendix C of this report.

## 2. Evaluation Process and Results

In order to efficiently review 37 proposals spanning everything from diagnostics to ground motion the panel divided the proposals in three groups that were evaluated by two reviewers each. In addition the proponents had the chance to interact directly with the review and the other proponents during a 2.5 hour teleconference. Proponents that could not participate are marked in red in the table in Appendix A.

In a first round we went through each of the proposals together and the questions for each proposal were summarized.

In three parallel telephone conferences the questions for each proposal were asked together with three general questions that were sent to the proponents earlier that day. These general questions were:

1. Statement: We understand that the request may not explicitly mention students.  
Question: What is the involvement of students in your proposal? How many and what fraction of their research effort is devoted to the project?
2. How does your proposal address an important issue within the LC effort?
3. Does your proposal overlap with other proposals or work going on in a Lab

We devoted the rest of our committee time to going through all the proposals again and evaluating the answers to the general as well as the specific questions. We discussed them keeping in mind the general guidance given in the charge and the appendix and ranked them in categories of: **Relevance; Clarity / Uniqueness; Expertise/ Feasibility**. In a second round we included issues like: student involvement, amount of funding requested etc. The final ordering was done by grading them in numbers between one to five, with one being “absolutely should be funded” to 5 “should not be funded”. The final ranking of each proposal is attached to the to the write up.

There are no fives, meaning that proposals that would be considered irrelevant or unfeasible were not submitted. The committee felt that this is a great success by itself, given the large number of new players in this field. Since the committee was asked to comment on the lower rated proposals, comments are attached to the table and specifically written in the second table of Appendix A for those proposals rate at 3.5 or below.

### **3. Summary**

The quality of the proposals submitted to the committee was very good and all members felt that the UCLC and LCRD organizers had done an excellent job in both, getting the high quality proposal together and also in motivating the university community to significantly contribute to the accelerator R&D effort around the world. In the process of reviewing 37 submitted proposals they were discussed and ranked according to the guidance given by the LC steering group.

## 5. Appendix B

### The Agenda

8:00-8:45	Charge to the committee	Steve Holmes
8:45-9:00	Coffee break(fast)	
9:00-9:30	Introduction to UCLC (20+10)	Dave Rubin
9:30-10:00	Introduction to LCRD (20+10)	Dave Finley
10:00-12:00	Closed Session Organization of the panel Prepare / exchange questions for phone c.	
12:00-1:00	Lunch	
1:00-2:00	Closed Session	
2:00-5:30	Phone conferences with Proposal reps	
5:30-6:30	Closed Session	
7:30	Dinner	??
Tuesday		
8:30-11:30	Closed Session <ul style="list-style-type: none"> <li>• <i>Assessment and Prioritization</i></li> </ul> Presentations for close out from 3 groups	
11:30-12:30	Reserve for Proponents to call back to panel	
12:30-2:00	Lunch	
2:00-3:00	Closeout (phone conference)	
3:00	adjourn	



## **6. Appendix C**

### **Additional Guidance by the LC Steering Board**

The Board would like the review committee to provide the following:

- 1.) a rating for each proposal (e.g. excellent, good, satisfactory, or poor) based on factors such as clarity of goals, feasibility, strength of the participants, etc;
  
- 2.) a categorization of the relevance of each proposal (e.g. critical R&D, important R&D, useful R&D, or irrelevant)
  
- 3.) a rank-ordering of the proposals. This rank-ordering likely will be a grouping of the proposals into tiers (e.g. first priority, second priority, defer, or drop). You may need to indicate why you recommend to drop a proposal.