

Meetings and Minutes

Minutes of the September 10th UEC Meeting

Present: Alton, Bertram(video), Casey, Chertok(video), Diehl(phone), Finley, Hughes, Gollin, Kopp, Merritt, Quinn(video), Trischuk (apologies: Nguyen), From the GSA: Clark, Copic, Pursley, Sengupta

Outgoing Chair Trischuk called the meeting to order at 9:05am.

Introduction of new UEC members:
The newly-elected members of the UEC were introduced.

Introduction to the UEC:

William Trischuk reviewed the organization, activities and goals of the UEC. The UEC functions as a forum for discussion of users' concerns, provides feedback to the laboratory on scientific and administrative matters, gathers information of interest to the users in its monthly meetings and disseminates this information, organizes the yearly trip to Washington, DC, and the annual Users Meeting, and interfaces with other users' organizations in the field. This year, seven new members were elected (instead of the usual six), owing to one early retirement. The list of issues covered by last year's committee was presented, and it was noted that many of these are of continuing interest, as for example the issue of visas for foreign scientists. It was noted that last year's survey did indicate that some improvement in this area has been observed.

There was discussion of the role of the UEC and the job description of the chairperson.

Meeting with Fermilab Director Oddone

Director Pier Oddone was introduced to the new members of the committee. He answered some questions submitted earlier by the committee.

Q: Is there any news on the House/Senate conference on the DOE budget for FY06 and how it may impact the lab?

The Director said that during his Washington trip last week, he met with the Secretary and Deputy Secretary of the DOE, and was encouraged to find that they agree that the Department has a strong role in science. There are problems in competition with larger programs in the DOE such as the nuclear cleanup program, but he feels there is an intention to be supportive of the science and to address those difficulties. The Director is hopeful that the House markup (which provides a larger budget for HEP) will stand after the committee resolution. There is a continuing concern for the effect on future years of the increasing budget deficits, and this may affect how to take the ILC cost estimate to Washington when it is provided by the Global Design Effort (GDE).

Q: What do you expect the lab can and should do in response to the possible outcomes from the P5 visit next week?

The P5 charge is asymmetric between Fermilab and the B Factory; the P5 committee is able to recommend either extension or shortening of the Tevatron collider running. The outcome hinges primarily on the physics case, and secondarily on the question of staffing for the collider efforts. The physics case is strong for 2009+, but there are issues appearing in the effort surveys conducted by the collaborations and the laboratory. These show up as possible effort shortfalls by 2007, but this is far enough away to give time for planning and work to address them. There is concern about this at DOE. (The audience remarked that DOE has in the past been part of the problem with its push to use funding decisions to move effort away from the Tevatron program, and that a change here would be welcome indeed.) The laboratory is working on MOU.s to clarify commitments, and on possible ways of slowing the shift of laboratory staff to a rate commensurate with keeping the Tevatron program healthy. (Comment from the audience that this would be better done with incentives than mandates.) It may be necessary to free up resources to support technical work and thereby enable the physics. It may also be effective to provide more resources for visitors. programs. We are also trying to work with ATLAS to enable a US center similar to the CMS plan and to further joint participation in TeV/LHC collaboration. It is certainly true that an early TeVatron shutdown would present a big problem for the field in terms of continuity before the start of the next big project, and there is awareness of this in Washington. A program that continues to exploit the TeVatron and continues with NOvA is needed and NovA should go forward in any case.

Q: What did the PAC have to say about the NuMI long baseline neutrino program at its June meeting? How is NOvA doing?

There was a strong push from the PAC to go forward with NOvA. The physics case is perceived as strong. DOE is likely supportive of this direction, but the big problem is to maintain the timeliness of the project. Inclusion in the 2008 budget requires a CD2 by June 2006, and the project is not at CD0 yet. Asking for an exception to the rules is difficult, but perhaps can be pursued if we are close; the Director will be looking at how to make this process happen. The JPARC program is pursuing a more aggressive schedule given the progress on NOvA.

Q: Has the shutdown been scheduled? What were the factors that drove the dates? Were there issues around the availability of personnel to do the work? Will other parts of the accelerator complex return to service much before the collider?

To delay the shutdown was a difficult decision given the commendable readiness of the DØ upgrade project. Fundamentally, the decision hinged on the need to pursue appropriate accelerator studies soon enough to give the long lead times that might be needed for tuning the effort to raise luminosity. Starting the shutdown on schedule would have delayed these necessary studies by an unacceptable amount, given the need for stabilizing the machine after a lengthy shutdown. Historical experience shows that return from the shutdown is quick enough, but return to an environment stable enough for studies takes significantly longer. Studies are in progress now to improve the stacking rate, refine electron cooling and bring it into operation. It's also necessary to investigate any limits with large stacks which we might not be aware of yet, which

might drive changes to the upgrade plans. The new tentative shutdown date is March 1, 2006; it may advance to early January, but there is a need to insure enough good weather during the shutdown for the necessary electrical infrastructure work. (From the audience: Does the delay allow the stacktail upgrade to take place in this shutdown? No. Comments: Many users' schedules were affected by the shutdown . plans to travel, take sabbaticals, arrange teaching schedules . in ways that cannot be changed at short notice. Another problem with the change is the lack of continuity for the students and postdocs . given the gap between building and commissioning the upgrade, there may well be some losses of personnel who have moved on. More transparency is needed in communication from the Accelerator Division on the status and needs of the accelerator program. The aggressive program of reviews applied to the experiments which resulted in such transparency in their schedules has not been applied in the accelerator programs. The Director noted some of the difficulties with applying that approach to the machine studies. The Laboratory has been given a report which describes possible means for more transparent communication between the Accelerator Division and the experiments. Such recommendations or other ideas might be fruitful.)

Preparations for the P5 visit . T. Wyatt, R. Roser

Terry Wyatt and Rob Roser showed the agenda for the P5 presentations, and explained that the collider collaborations had agreed that the presentations should in general not be split along experiment-specific lines (with the exception of the technical talks on the detector performance and upgrades). They listed the items they would like to see the P5 panel take away from the presentations: the existing strong commitments through 2007, the strength of the physics case through 2009, and the folly of prematurely excluding a TeVatron run through 2009. P5 will visit SLAC on Oct 6-7, and its report is expected at the end of October, so the Sep 12-13 meeting is the last chance for Fermilab users to have direct contact that might influence the committee. (The UEC Chair then sent an announcement to the Users Organization mailing list emphasizing this point.) The experiments are working with the divisions to investigate how the addition of Fermilab or visiting manpower could help provide efficiency gains and address the effort shortfalls. They were asked about the possibility of pursuing new collaborators from the CLEO community; this has not been specifically tried, but it was noted that the collaborations are still getting applications from new groups. They were asked about the reaction from the collaborations in the event of the luminosity profile not meeting the design goals; the answer is that this would have to be weighed along with the other factors (LHC schedule developments, for example, and the size of the luminosity deficit). The P5 presentations should not leave the impression that continued running is only desirable if a long list of conditions all provide a resounding 'yes'.

The Fermilab Perspective from the Snowmass ILC Workshop . R. Kephart.

The ILC program at the lab is now headed by Bob Kephart, and he is now part of the Directorate. He showed the new organization chart, and commented that because of its importance and the fact that it will touch all parts of the lab, Pier has decided that the program will be managed from the Directorate rather than from a division. He will appoint ILC project leaders from within each division. Kephart's deputies are Sergei Nagaitsev and Shekhar Mishra.

He reported on the goals of the second ILC workshop: a. Recommendation of baseline configuration of ILC (BCD) b. Identification of longer-term alternative configurations (for example, cost-saving possibilities) c. Identification of necessary R&D for (a) and (b) Once agreed on, the BCD will be used to create a reference design and rough cost estimate by the end of 2006. The Snowmass workshop was the logical next step, following the technology choice. The energy choice is still coupled to the physics output of the LHC, and the key issue is still cost. The technology is promising but much R&D is still needed. The detectors are complex but achievable. There was a big and international turnout, with 660 participants from all regions. Real work was done in the working groups, to start reducing the phase space of choices. The level of presence from lab directors, international funding agencies, and industry were all high. More Fermilab staff attended than at any previous linear collider workshop, although the TeVatron/LHC community was still very thinly represented (understandably, given their immediate focus on the near term program). Fermilab ILC accelerator physics, site studies, and main linac SCRF R&D are well-aligned with the BCD. The summary slides from the workshop are available in the talk from Nick Walker at the Snowmass web site: <http://alcp2005.colorado.edu:8080/alcp2005/program/accelerator> It is expected that SCRF R&D at Fermilab will establish US technical capabilities. (From the audience: Users depending on protons at the Lab for their physics ask, what is the connection between the Proton Driver and ILC? These are closely related especially in terms of skills, industrialization. The timescales are unlikely to collide technically.)

UEC Chair election

Sacha Kopp of the University of Texas was elected Chair.

Committee assignments were made as follows (Committee Chairs in capital letters):

- Outreach: GOLLIN, Casey, Quinn
- Quality of Life: DIEHL, Alton, Finley, Merritt
- June Users Meeting Planning: CASEY, Alton, Bertram, Trischuk
- Washington, DC Trip: QUINN, Chertok, Diehl, Finley, Hughes, Merritt, Nguyen
- Non-US Users Issues: BERTRAM, Finley, Trischuk

Wyatt Merritt agreed to serve as Secretary and Webmaster.

Further discussion:

The role of the Outreach committee was discussed. It will be refocused on outreach to university administrations and state governments, with the goal that its activity will be an ongoing, year-round effort that supports and complements the DC trip in helping to ensure a supportive funding climate for the field.

New committee chairs were reminded that they should keep the gsa-officers list informed of subcommittee meetings, as the GSA generally supplies a member for each subcommittee. The UEC was also reminded of the upcoming GSA election, and encouraged to help find candidates

from the graduate student community, particularly from previously underrepresented constituencies.

David Finley displayed a letter from Ray Orbach of the DOE Office of Science soliciting help for researchers affected by Hurricane Katrina; it was agreed that this should be distributed to the Users Organization.

The desirability of a calendar which would alert the user community more than a few days in advance about workshops and events like the P5 visit was mentioned. These events don't always appear in Fermilab Today, and that format is not conducive to being an aid to trip planning for users.

Future Meeting Dates

Future meeting dates: October 8, November 19, and December 10