

Minutes of the October 8th 2005 UEC Meeting

Present: Alton, Casey, Chertok, Diehl, Finley, Gollin(phone), Kopp, Merritt, Nguyen, Quinn(video), Trischuk
Apologies: Bertram, Hughes
From the GSA: Aguilar-Arevalo, Cuenca Almenar, Degenhardt, Maki, Welty-Rieger

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

The new GSA officers were introduced to the committee. They are:

Alexis A. Aguilar-Arevalo, Columbia (MiniBooNE)

Cristobal Cuenca Almenar, UC Davis (CDF)

James Degenhardt, U. Michigan (D0)

Tuula Maki, U. Helsinki (CDF)

Leah Welty-Rieger, Indiana (D0)

The Committee first heard reports from the Outreach, Users Meeting, and Quality of Life Subcommittees.

OUTREACH (Gollin, Quinn, Casey, Kopp)

George Gollin reported on the first meeting of the Outreach Subcommittee, which focused on what the goals should be for this year. The goals proposed are:

- that universities will play larger role earlier in these projects. There was consensus that this would help the level of vigor at the lab.
- increase opportunities to do outreach back at the Users' universities and home towns. It was noted that collaborators on 'big science' projects face a particular challenge in having visibility within their departments, universities, and local schools given the remote location of their host laboratory in Illinois. Possibilities might include traveling exhibits, fixed exhibits at museums, and video productions. It was suggested that the Fermilab Education Office be consulted for their logistical experience with such efforts.
- increase the amount of political outreach through grass-roots efforts; help universities in their government outreach efforts that are supportive of HEP and Fermilab (and basic research in general). Opportunity to simultaneously emphasize the importance of universities to the preservation of our national capacity to do basic research.

USERS MEETING (Casey, Trischuk, Bertram, Alton, Nguyen, Kopp)

Brendan Casey discussed the plans for the Users Meeting Subcommittee. From consultation with last year's subcommittee chair, he has determined goals for 2005 work for this subcommittee.

- form subcommittee (done)
- set date: most likely Wed-Thurs May 31-Jun 1 2006 with New Perspectives on June 2. Dates cleared with most people at FNAL, URA, and the collaborations.
- thinking about major themes
- thinking about high-profile speakers, with goal of invitations by November

The question was asked whether the Users Meeting could be more of a showcase for younger people in the field. It was suggested that the UEC could help facilitate recruiting for talks for New Perspectives - perhaps by helping to expand the audience.

CHAIR'S REPORT

Sacha Kopp presented the issue of a lab-wide calendar of meetings, workshops, reviews at the Lab. In discussions with the Directorate, he found that many meetings like reviews are not considered open meetings. He pointed out that the Top Turns Ten symposium had not been advertised offsite (by Oct 8) because it had not yet been approved as a DOE conference. He will continue investigating if something can be done.

He also reported a request for a womens' dorm at the lab. There are 92 dorm rooms at the lab, with a typical occupancy of 2-3 women at any one time. A womens' 'corridor' might be more practical than a womens' dorm. Comment: some women may be annoyed by having to go to a different venue than male colleagues. Such an block of rooms, if it proves possible, would be made available as an option rather than as a 'requirement.' There were suggestions to take this up in the QOL Subcommittee. It was noted that Brookhaven has had a womens' dorm and may still have one. Users with opinions (either for or against) should contact either Sacha Kopp (kopp@hep.utexas.edu) or QoL chair Tom Diehl (diehl@fnal.gov).

Kopp commented that the DC Trip Subcommittee is well staffed, but that other subcommittees as well may need more help. The GSA officers were invited to sign up for the subcommittees.

QUALITY OF LIFE (Diehl, Alton, Finley, Merritt, Kopp)

Tom Diehl reported on the first meeting of the Quality of Life Subcommittee. There was presentation from Alton on the previous year's activities. These included a Career Night, which should be continued and the QOL committee will need GSA help with this. The QOL subcommittee will take up the QOL of women at Fermilab as a new initiative. The first step is information gathering, and they are thinking about a survey. The womens' dorm experience listed above is an example. The women_scientists mailing list should be more widely advertised, perhaps. Finley pointed out that QOL for women users should be the particular concern of the UEC. The next subcommittee meeting will look at how to proceed. The subcommittee took up the issue of the closing of the email center and discovered (as mentioned below) that the closure was temporary. Diehl mentioned that the subcommittee has a lot of lab experience, but is looking to the GSA and other UEC members for current direct experience for non-lab employees. There is a web page, which will be updated in the future. There will be a meeting next month, the date still TBD.

GSA

James Degenhardt reported that the GSA has reserved the Barn for its annual Halloween party on Oct. 28.

REPORT ON NEW ID BADGE PROTOCOL

Assoc. Director Bruce Chrisman gave a presentation on "Changes in Fermilab ID Procedures". He gave the history of the DOE directive we are required to follow. Fermilab will be required to move to a unified style of badge used by all government organizations. For current badge holders (including users), nothing will change for at least a year (even if badges need to be renewed). Changes will soon be felt by those first registering for an ID badge.

In the first phase of the program, background checks are required for all new employees and users who are US citizens requiring long term (> 6 months) PHYSICAL access to site. Background checks include fingerprinting. Short term badges may be issued before the completion of the background check, but must be physically distinct from long term badges. (Non citizens are excluded because they already have a separate validation process.) The cost of the background checks will be a minimum of \$100, rising to \$1000 or more if flags are raised. It was noted that this is a substantial cost for 3000+ users at FNAL.

The second phase of this program requires badges with biometric information and other information about the individual (possibly to include the Social Security Number) on an encrypted chip on the badge. This will raise the cost of the badge itself from \$1 to \$20. This phase is scheduled for 10/2006, but may slip. Current users will have to get new badges and receive background checks by 2008. Information collected in the background check is supposed to be protected by the Privacy Act. The Lab's intention is not to keep the information but to shred.

The background checks will not apply to badges issued for family members.

None of this affects the procedures for site access, which can be accomplished with a driver's license at Fermilab.

This information has been disseminated through Fermilab Today, at the All Experimenters meeting, and will be posted on the web with a FAQ next week.

It was pointed out that the time cycle to implement this in the DOE was quite fast, and other changes may yet come to the program.

VISIT WITH DIRECTOR ODDONE

Next, Director Pier Oddone discussed some questions submitted earlier by the committee.

Q: Is there any further news on the shutdown(s) scheduled for 2006? Will the Oct. 2005 shutdown still be slated for March 2006? Will there be another shutdown later in 2006? What is the current thinking for the stacktail cooling installation?

The Director had expected to make the final shutdown decision in the past week. Another variable has been introduced, in that the lab has been invaded by zebra mussels. They are present in the cooling systems, and another goal of the shutdown will be to take care of the zebra mussels proactively. The recommended treatment requires a temperature of above 55 degrees Fahrenheit, for a duration of 5 weeks. This limits the ability to move the date earlier than March

1. The plan requires this one-shot treatment plus ongoing efforts to keep the internal cooling system mussel-free. The final determination is not complete yet. Beginning the treatment before the shutdown is not an option, because of possible complications from the killed mussels plugging the system. The amount of work required in the accelerator has now expanded, and may come close to filling the 14 weeks. The neutrino program may not be able to come back early, because of the cooling water problem. The information to fully work out the schedule is not yet available. It is flagged as a problem that this issue was not folded in to the overall shutdown planning earlier. We also need an environmental permit to undertake the mussel procedure which is not yet in hand, but is thought to be obtainable in time.

Q: Users Meeting: The Director was asked about the Users Meeting date, and agreed that he will block out May 31-June 1.

Q: What is the Lab's impression on the cancellation of RSVP (KOPI0 and MECO) and the possibility for doing this kind of flavor physics in the U.S.?

The Director agrees that the US has gotten out of flavor physics, and that the way in which this was decided was not optimal as a decision-making process for the field. The intricacies of NSF funding and why it could not invest in flavor physics at Fermilab (but could in principle at Brookhaven) were discussed. The funding route that permitted RSVP to go for large-facility funding (MREFC) at the NSF would likely have worked if a DOE commitment to operate RHIC was available, but such a commitment was not available. Whether to investigate this NSF funding track for NOvA was raised, but the Director pointed out that the DOE route might well be faster. The Director made the point that in the Proton Driver scenario, several new physics programs become possible; e.g. 8 GeV neutrinos for a very long baseline program and a rare decay program. On the other hand, the Proton Driver scenario might be superseded with a sufficiently low ILC cost estimate. So having the relevant discussions with agencies right now is hard. There is a program to give > 1 MW to NOvA using the existing accelerator complex which is not very costly, if we are in the fast track ILC scenario, but that program has no protons left for MECO.

Q: What is known about the status of HEPAP, P5 and its Scientific Assessment Groups such as NuSAG?

HEPAP is going to continue, and a new chair, deputy, and membership are being recruited but not yet publicly announced. It is noted that the P5 report is due in 3 weeks, but the body to which it reports needs to exist. The Director noted that the SLAC P5 visit went well, as of course the Fermilab visit did as well. He expects that P5 will see clear running through 2007 and that the 2008 running will be budgeted for in the 2006 planning. The NuSAG report on NOvA and reactor neutrino initiatives is expected soon. The reactor neutrino experiment is looking for Fermilab participation.

Q: What were the notable news items from the ICFA meeting in Korea?

There was no big news, but it was a good opportunity to hear plans from the other laboratories in a systematic way. It was interesting to see the strength of HEP in Korea - 300 HEP physicists,

including 90 machine physicists, and there are ambitions to build something in Korea. They discuss building larger accelerator in Korea, shooting a neutrino beam to Japan, and possibly also having a spallation neutron source, for example. At ICFA, the biggest discussion was the future evolution of ICFA, given labs like SLAC and DESY leaving accelerator-based HEP. The light source community, for example, is regional and tends not to need international collaboration at the same level, so broadening ICFA in that direction makes little sense. However, ICFA could be broadened to large projects in HEP that are not accelerator-based. But there is already such an international body PaNAGIC dealing with those projects - under the auspices of IUPAP - and ICFA's move in that direction might not be welcome. There was also an ILC Steering Group meeting, and meetings of the regional committees (a lot of work for Barry Barish, to report to all these groups). Barish is working very hard to keep ILC activities very international. (Question from the audience: was anything in particular behind the talk at ICFA on the VLHC? Answer: the talk was basically just for completeness.)

COMPUTER SECURITY AT FERMILAB

The Committee heard a presentation from Irwin Gaines on "Recent Computer Security Changes". He noted that the DOE is excited and concerned about computer security. It has been getting bad grades on recent audits (not necessarily for real insecure practices, but for process issues). The burden from Congressional requirements is rising in two ways - guidelines are morphing into requirements, and the applicability to all computers on the network is broadening. Because Brookhaven failed its audit rather badly, DOE has cancelled its upcoming audits (including ours) and instead is doing 'not for attribution' audits. It is important to do well on the NFA audit, in order not to be given instructions to do the same things Brookhaven had to do.

Specifically, it will be necessary for the NFA audit to prove our level of security. This means more documentation and a higher percentage of sysadmin registration. Machines without registered sysadmins will be blocked from the network at some point. Also, machines without up-to-date patches and virus signatures will be blocked. Machines will need password protected screen savers. The lab is doing penetration testing now, to prepare for the audit. The auditors will also be trying tricks such as virus-infected provocative CDs left around, attempts to obtain passwords with phone calls, etc. Services will be restricted on non-supported configurations, and sysadmins of non-supported configurations have to document their system maintenance. Email from offsite from user@fnal.gov will be blocked unless authenticated (most people already do this). Outgoing mail will be blocked at the border router unless it comes from the lab's smtp server. The procedures will be announced in Fermilab Today as they go into effect.

Question from the audience: when a critical vulnerability is found on a user machine, the process requires human intervention to unblock and this can destroy a visit to FNAL because of the time lag. Gaines reported that unblocks will soon be automated, which should help. Question: can one be pre-scanned at home before coming? No, that's hard.

Gaines was asked about the closing of the email center: it was in order to move the helpdesk to that location, and should be reopening soon (within the week).

REPORT ON NOVA

John Cooper gave a talk on "NOvA Project Status and Opportunities for New Collaborators". This is an experiment to measure $\nu\text{-}\mu$ to $\nu\text{-}e$ oscillations at the atmospheric oscillation length. Nova's uniqueness is the ability to unravel the mass hierarchy. It can measure θ_{13} , provide more precise θ_{23} and Δm_{23}^2 , and look for sterile neutrino effects. The revised NOvA proposal is a low-Z tracking calorimeter and a 30kt totally active liquid scintillator proposal. It has stage 1 approval from Fermilab. NuSAG will report on Nova at the end of Oct 2005. Cooper described the detector in some detail, and noted that portions of the detector cost are unfortunately driven by the price of petroleum. He also discussed site possibilities, the progress of the environmental work needed, and the project organization.

It is desired to start construction in 2nd quarter FY07 by applying for NOvA funding as a Major Item of Equipment (MIE) through DOE. Working backwards from that date implies progressing from CD1 to CD2 in only 3 months - a very tough assignment. If NOvA qualifies as a Congressional budget line item, funding in FY08 requires CD2 by June 06. There is room for interpretation in whether NOvA really is an MIE, and also on the level of review required by what time, so there are investigations still ongoing regarding those issues.

Cooper pointed out that the collaboration has a large overlap with MINOS, but 1/3 of the proposal authors are NOT on MINOS. The collaboration could use more people and is certainly not a closed shop. They are talking with Indian and Italian physicists, with BTeV people, and there is a statement from the CERN Director General that some CERN physicists can participate.

FUTURE MEETINGS

Future meeting dates: November 19 and December 10.