

Length of Experimental Timelines

Christopher White

(For the FNAL Users' Executive Committee)



http://www.fnal.gov/orgs/fermilab_users_org/

UEC Membership

UEC Chair 2002-2003: Christopher White (IIT)

RETURNING MEMBERS

John Conway (Rutgers U.)
Joey Huston (M.S.U.)
Rob Plunkett (FNAL)
Wendy Taylor (Stony Brook)
Sherry Towers (Stony Brook)
Chris White (I.I.T.)

NEW MEMBERS

Sharon Hagopian (F.S.U.)
Fernanda Garcia (FNAL)
Leslie Groer (Columbia)
Paul Sheldon (Vanderbilt)
Bob Tschirhart (FNAL)
Eric Zimmerman (Colorado)

GSA Representatives 2002-2003:

Amber Jenkins
Jun Zhang
Reid Mumford

Andy Hass
Martin Hennecke

Using Existing Data Sets

- ✍ Software Issues are a VERY serious concern
 - Inability to re-compile code on new platforms and/or under new OS
 - Variable results across platforms or with different OS/libraries
 - Media reliability

- ✍ Sociological Issues
 - Friction between *collaboration* students and *parachute* students
 - Decreases likelihood that talented young physicists will enter HEP
 - Requires an advisor connection with existing data
 - Camaraderie and fellowship with collaborators (lack there of)

- ✍ Educational Issues
 - Not an optimal method for training students
 - Availability of sufficient information and expertise
 - Concerns with regards to consistent systematic errors (reproducibility)

Timelines

Project #	Name	Proposal Date	Approval Date	Beam
E781	SELEX	Mar. '87	Oct '88	1996
E799	KTeV	Jan '89	July '91	1996
E815	NuTeV	Mar '90	July '91	1996
E830	CDF Upgrade	Oct '90	July '91	2001
E831	FOCUS	Oct '90	Dec '92	1996
E871	HyperCP	Mar '93	June '94	1996
E872	TauNu	Mar '93	June '94	1996
E875	MINOS	Feb '95	May '95	2005
E898	MiniBooNE	May '97	June '98	2002
E900	D0 Forward P	Sept '97	May '98	2001
E907	MIPP	July '97	Nov '01	2003
E918	BTEV	May '00	July '00	??
E921	CKM	Apr '01	June '01	??

Fermilab UEC CONCERNS

- **Delays in staged approval have impeded progress on future program**
- **P5 will simply exacerbate the problem**
- **Lack of midterm program is dangerous!**
- **Uncertainty with regards to the Linear Collider is creating gridlock**

November 6, 2002

Prof. Fred Gilman
High Energy Physics Advisory Panel

Dear Fred,

Thanks for soliciting our input on the issue of approval timescales for new experiments. We have met and discussed the matter, and this letter represents the preliminary opinion of the members of the committee. Due to the short timescale of the request, we have not formally solicited input from the larger user community. If more broad-based comments would be useful, we could do this and generate a revised response within the next two months.

It is clear to us that the slow and uncertain approval process is a matter of real concern to many FNAL users. We are under the impression that the official process for turning a proposal into data has not changed substantially in the past several years, but that there has been a marked increase in the timescale of responses to proposals. This is particularly true for the stages which follow laboratory approval: at least three Fermilab experiments (BTev, CKM, and E907) with lab approval are at present experiencing delays at various stages.

We are also concerned that in the near future, the installation of P5 will exacerbate the problem by adding a new step to the approval ladder. In the interests of streamlining the process the architects of P5 should consider a meta-review process which runs in parallel to the existing approval chain, and does not impede but rather supports R&D critical to the development of new experimental initiatives. Well-developed proposals analyzed with a uniform costing metric will give P5 the ability to deliver much more credible advice to the funding agencies.

Two related points were brought up. Under pessimistic funding scenarios, existing commitments (dominated by Run 2, BaBar, LHC, and MINOS) saturate the HEP program's budget for many years. The prospects for a new project's success under this scenario are zero, regardless of the approval process. We fear, though, that if this becomes the attitude of the funding agencies then these pessimistic projections will become a self-fulfilling prophecy.

A final concern is that uncertainty over the fate and site of a linear collider may soon create a climate where new project approvals are suspended to avoid committing resources pending a long-term redirection of the program. The current period of uncertainty may not end soon, however, and the lack of medium-term direction for the field is becoming dangerous. The LHC provides a medium-term project for only a fraction of the Fermilab user community, and there does not appear to be room for substantially more people to join. Many university programs and the technical expertise at the laboratories are at risk if new projects are not started soon.

Sincerely,

The Fermilab Users' Executive Committee