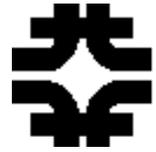


Major reviews



We are having 4 major reviews of the laboratory in a 30-day stretch:

- Run II Accelerator review 2/24-26

<http://www-bdnew.fnal.gov/doereview04/index.htm>

<http://www->

[bdnew.fnal.gov/doereview04/RunII_Lum_Review0204_closeout.pdf](http://www-bdnew.fnal.gov/doereview04/RunII_Lum_Review0204_closeout.pdf)

- URA Visiting Committee 3/12-13

- DOE Tevatron Operations review 3/16-18

http://www.fnal.gov/directorate/DOE_Review_TeV_Ops.html

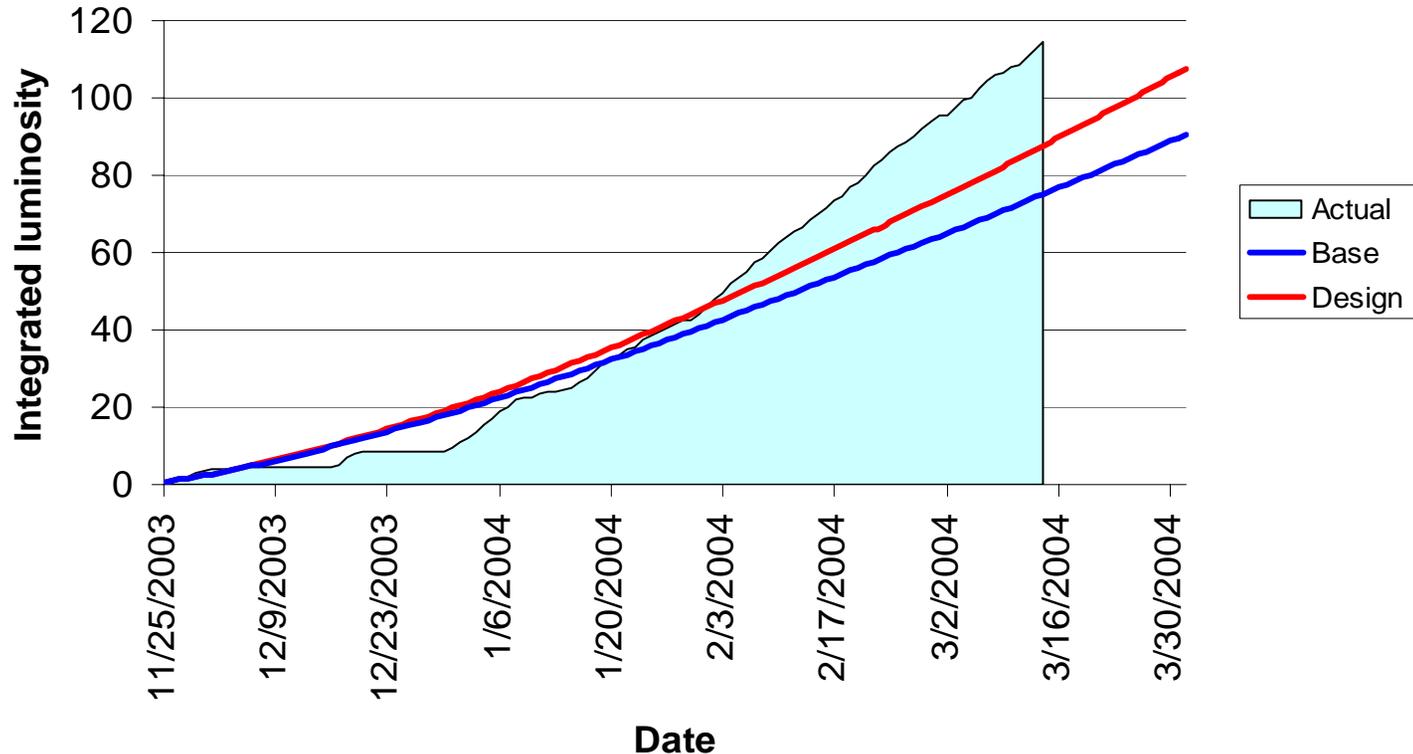
- DOE Annual Program Review 3/23-25

http://www.fnal.gov/directorate/DOE_Annual_Prog_Review_2004.html

Tevatron Operations: FY 2004 Plan and Status



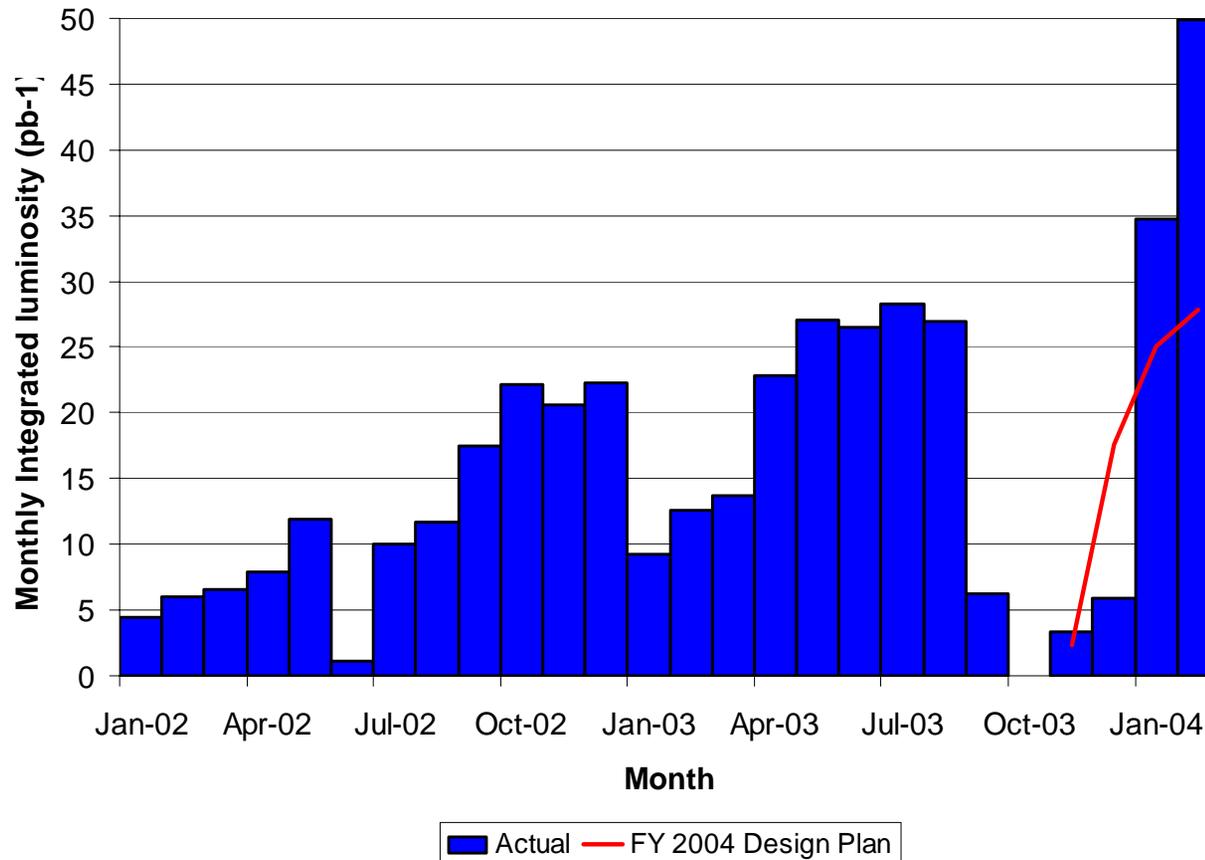
Integrated luminosity vs FY 2004 plan

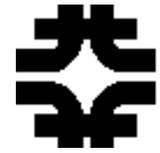


Physics total $\sim 0.25 \text{ pb}^{-1}$ on 10/03; plan $\sim 0.55 \text{ pb}^{-1}$ by 9/04

- On 3/14/04, we were 3+ weeks ahead of design plan, going into a 2-week shutdown.

Progress of Run II





The last seven months

At the 7/21/03 accelerator review I said:

- “We will focus on
 - understanding and fixing limits to present luminosity, including several connected with the Tevatron,
 - reliability and maintenance issues,
 - Recycler commissioning, and
 - the upgrade program.”

We have, and it has paid off.

DOE review closeout, 2/26/2004



Review Summary:

Great progress has been made since last review in July 2003.

Successful shutdown – accomplished goals

The Tevatron complex has never performed better.

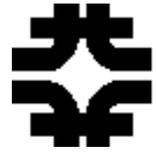
At last review we said –

“Success requires the new management team to effectively lead and integrate the many technically complex activities that make up Run II. The next 6 months will be critical.”

The successes of the past 7 months are indicative of the very hard work of high quality staff working on Run II and the capabilities of the management team to lead and organize the Division’s efforts.

The Laboratory as a whole appears to be focusing on run II and providing support at the level needed for success. This is important.

DOE review closeout (cont.)



So what's the bottom line?

We're very impressed with the progress in the past seven months.

We have increasing confidence that Run II will be successful.

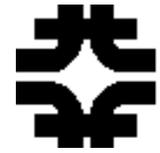
We look forward to continued progress toward the Tevatron complex being reliable and well characterized to serve as a platform for the cutting-edge upgrades.

But there's a long way to go in the complex campaign of operations, maintenance, upgrades, R&D, and studies that must succeed if the luminosity goals are to be reached.

We see a significant challenge in the installation and successful commissioning of electron cooling in the next 16 months.

Keep up the discipline, focus, dedication and good work. We are very encouraged!!!

Fermilab response to DOE accelerator review



- We agree.
 - The last seven months have gone very well.
 - The AD management team is working well.
 - There is a long campaign yet ahead of us.
 - We will keep up the discipline, focus, dedication, and good work.
- The review was deep, thorough, and helpful.
- We are pleased that the next full review will be in one year.
 - minireview September 8, 2004
 - full review February 2005



The FY 2005 Budget

FY	02	03	04	05	02-05
HEP	713	716	732	737	3%
Fermilab base	286	285	285	292	2%

Annual budgets in \$ millions

- Fermilab budget has been flat from FY 2002 to FY 2004, corresponding to ~\$20 M less real effort.
 - We had a Voluntary Early Retirement Program in FY 2003.
- We have managed to support the full accelerator plan.
 - removing silicon detector upgrades
 - less work on the future, infrastructure than there should be
 - very little effort other than on existing commitments
 - redirecting manpower from inside laboratory
- In the President's budget, it will go up ~2% in FY 2005.
 - Run II accelerator improvements stay large.
 - NuMI project ends.
 - BTeV gets a small start.

The last year at Fermilab

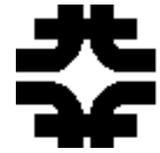


- Run II

- Reorganized Accelerator Division for Run II.
- Increased integrated luminosity per week by $\sim 2x$.
- Delivered Run II total of 360 pb^{-1} total vs 120 pb^{-1} by 3/2003.
- Brought Recycler up to specs for pbar storage.
- Removed Silicon detectors from upgrade projects.
- CDF and D0 started publishing physics results.

- Neutrinos

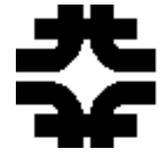
- Delivered MiniBooNE total $2.1E20$ pot vs $0.4E20$ by 3/2003.
- Started MINOS far detector operation on cosmic rays
- Completed NuMI construction contracts.
- Installed beam line components during fall shutdown.



The last year

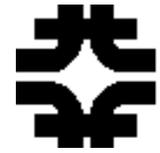
- External 120 GeV beams
 - Installed MIPP experiment and started operation.
 - Started operation of MI test beam.
- Future experiments
 - BTeV endorsed by P5, Office of Science, given CD-0
 - BTeV language and funding in FY 2005 budget.
 - CKM not endorsed by P5.
- Experimental astrophysics
 - Completed initial CDMS-II and started operation in Soudan.
 - Building full Auger while taking data with largest operating array.
 - Completing SDSS survey while making regular discoveries.
 - Joined collaboration to propose Joint Dark Energy Mission.

The last year



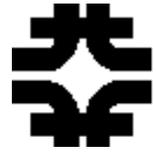
- **Future planning**
 - Long range planning committee almost complete
 - US-CMS and US-LHC research programs
 - Linear collider charge
 - Proton driver charge
- **Operations review**
 - Review committee generally endorsed Fermilab's management of operations, setting of priorities, and handling of challenges caused by the tight budget.

Vision I: FNAL hosting Linear Collider



- Linear Collider under construction near Fermilab
 - Fermilab at the center of future discoveries and understanding
 - Major part of Lab activity
- Neutrino Program
 - Based on improvements to the accelerator complex and the experiments over the next ten years
- Large Hadron Collider Program
 - Accelerator and experiment: Fermilab leading center for CMS physics
- Other experiments at FNAL
 - As physics demands
 - Quark Flavor may still be key
 - Other programs
- Astroparticle physics, Accelerator R&D
- Non-particle science

Vision II: FNAL with Linear Collider Offshore



- Fermilab Neutrino Program
 - World leading long baseline program
 - New accelerator-Proton Driver
- Linear Collider offshore
 - Significant Lab resources in this activity
- Large Hadron Collider Program
 - Accelerator and experiment: Fermilab leading center for CMS physics
- Other experiments at FNAL
 - As physics demands
 - Quark Flavor may still be key
 - Other programs
- Astroparticle physics, Accelerator R&D
- Non-particle science