

## A *FermiNews* Special Edition: The Director's Year-End Report

This year-end report on the state of the Laboratory is crammed with "good news - bad news." First the bad news. The Fiscal Year 1987 is the absolute pits!

Fermilab, as of 1 December 1986, does not have an official budget for fiscal 1987 which began on October 1. The fault is in part with the Congress which passed an omnibus continuing resolution only in late October, and with the DOE which has been slow in allocating the full annual budget, at least in high energy physics. We have had a preliminary financial plan, predating the Congressional action, and we have had informal telephonic communications. It is on the basis of these that we made our division of funds to the Departments and Divisions of the Laboratory. In a roughly accurate but over-simplified analysis, the Lab finds itself about \$18 million short in FY87. What determines "shortness"? Well, in 1985 we ran our accelerators for experiments for nine months, so we have a basis of experience for running costs. In FY86 we didn't run at all but did construct the B0 overpass and D0 Laboratory. We also did a lot of work in the tunnels, in the beamlines, with D0, CDF, and the fixed-target experiments that go by E-names such as E-687, E-665, etc.

We have estimated that the activities of 1986, the salaries and supplies, pretty much remain the same when we operate. What is built by construction funds must then be operated with operating funds, etc. So the 1987 increments required are primarily for electrical power, cryofluids, etc. These alone add about \$19 million to the operating budget. In FY87, the President's Budget recognized this need, but because of Congressional budget cuts the DOE was only able to give us essentially the same total budget as 1986. For a lab in more or less steady operation, this produces hardships. For Fermilab, ready to implement the newest and highest energy accelerator in the world, the budget is a disaster!

We have made strenuous efforts to inform the DOE and the Congress of the effect of appropriating large

sums of money to build facilities, having them built successfully and within the allocated budget, yet not being able to operate them. So far, we have clearly not been heard although we continue to "let it be known." In any case - the Lab must operate the TEVATRON in its *two* modes: Collider *and* fixed-target research. But swallowing an \$18 million shortfall is a stupendous perturbation. DOE has helped in extending reasonable flexibility in how we spend money. These still leave us almost \$10 million short in operating funds. So, we have had our first real layoff in the 18 years of the Lab; so, we are delaying the preparations for all experiments scheduled for the 1988 run and beyond; so, we are tightening up on all expenditures not crucial to the '87 research program. We are asking many to do extra work. We are investigating cheaper power from other sources, better and cheaper telephone service from anyone *except* FTS, and every kind of cost savings, however trivial. The Laboratory, its capabilities and its morale, are paying a heavy price in this fiscal year 1987. We need your ideas and cooperation.

What are the prospects? Since we do not have a firm budget, it's hard to say. It may arrive any day. We can't really be sure how much our austerity plans may bring in. We have reasonable confidence that the combination of the staff reductions already carried out *and* the hiring freeze will reduce the Lab population to the target goal of about 2050 by February - March '87. Barring major and negative supplementary legislation, we do not anticipate additional layoffs at anything like the 50+ that took place in November.

In a sane world, the Lab's population needs to be at 2200 and we need an operating budget of \$145 million for 1988 instead of the \$125.6 million we believe we have in 1987. In this season of introspection and joy, think 145!

So, how can there be good news? We could point to the industrial sector where things have been much worse, but this isn't really good news except for the

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most perverse. We do have the most powerful accelerator in the world and, because of it and because of the experimental program, we have the greatest physics potential, bar none. Bringing our accelerators, beamlines, and detectors up to performance specifications, implementation of these superb facilities will be slow, even faltering, because of the budget squeeze. This is tragic for both scientific reasons, and from the point of view of the public that pays. Nevertheless, we are on the verge of exploring totally new scientific territory. There is no telling what may show up. It will probably be not before a year from now that our first study of the new energy domain (1.8 TeV) will be presentable. In the meantime, the fixed-target program, already becoming recognized, will be advanced by another significant run with three major new experiments. In summary, world attention will be focused on Batavia in the next year. If we are skillful, and with a little bit-a-luck, we can make history. Does this mean the money will roll in in 1988? Sure, Virginia.

But there are good things around. We are all contributing to a wonderful subject and I hope everyone gets a chance to see the videotapes on WH 15 and in the Atrium to have a sense of our mission.

We contribute to the general culture and our inventions add to the nation's goods, cure people, and threaten no one. In this sense we are a privileged community, respected by our neighbors and renowned wherever in the world scientists gather to talk over their business.

It is with these ennobling thoughts that I would like to wish all of you a warm and joyous holiday season, and a happy *Calendar* 1987.

Lem M Lederman