

FermineWS

FERMI NATIONAL ACCELERATOR LABORATORY

Main Injector included in President's '93 budget

Fermilab may soon get green light for construction

The Main Injector earned a \$30 million endorsement from President Bush in his FY93 budget proposal submitted to Congress on January 29. Pending budget approval, construction of the Main Injector may soon be underway, ending a long period of funding uncertainty for the project.

The President's budget—which included only a slight overall increase in funding for high energy physics—requested full funding, adjusted for inflation, for the operation of Fermi National Accelerator Laboratory. This announcement was good news for the Fermilab physics community, who only a few months earlier feared not only a lack of funding for the Main Injector project, but also a 10% across the board budget cut for the base program which would have a serious effect on the field.

"In October I said that I would push as hard as I could for the Main Injector," said Fermilab Director John Peoples. "Over the last four months the Laboratory and our users have spent a good deal of time presenting the case for Fermilab to the Department of Energy. After the first meeting of the Secretary of Energy's Task Force on Energy Research Priorities, expectations for the vitality of the Fermilab High Energy Physics program was not very good. Since then the Department of Energy has requested additional funds for the High Energy Physics base program and this made all the difference in the world."

According to DOE, Fermilab is "among the high-excellence programs receiving important increases in this year's budget." At a recent press conference Office of Energy Research (ER) Director William Happer, stated that the proposed budget level "should enable a rich program of collider runs aimed at maximal utilization of the CDF and DØ detectors at Fermilab."

Referring to Fermilab as "the current jewel in the crown of high energy physics, and the key facility for exploring forefront particle physics in the 1990s," Happer stated that "it [the Fermilab program] is the key for keeping the field of high energy physics vital prior to the SSC turn-on later this decade."

"I am delighted that the Department of Energy has listened and has come to believe that Fermilab is 'the jewel in the crown of U.S. High Energy Physics,'" said John Peoples. "The recent Congressional budget request reflects their confidence in us. I am extremely pleased that the Main Injector is in the proposed FY93 budget. We can now go forward on the project with confidence."

DOE's confidence in Fermilab's program reflected in budget

The good news released by DOE on January 30 was made sweeter by the announcement that it intends to release the \$15 million appropriated by Congress for the Main Injector in FY92 and allow the Laboratory to begin final design of the project in the near future.

According to DOE ER Director William Happer, "We [DOE] are in the process of starting the Fermilab Main Injector in FY92, using the \$15 million that has been appropriated by Congress."

While the FY93 Congressional budget request of \$630.9 million for the base program of high energy physics reflects only a 1/2% growth over the amount appropriated for FY92, the budget request for DOE's confidence continued on page 4

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I believe that this is a good budget for science and that the programs funded are outstanding.

The willingness of the scientific community to set priorities has led to a more balanced program in these times of stringent budgets.

—Remarks made by William Happer, Director of the DOE Office of Energy Research, at a press conference announcing budget.

DOE grapples with funding realities

Scientific community plays role in budgetary process

Dealing with the recent funding issues has dominated the agenda of newly appointed DOE Director of Energy Research William Happer. "There has been a significant effort over the past few months by the Department of Energy to come to grips with a serious divergence between the wish list of different programs supported by DOE ER and the fiscal projections for those programs for the next few years," said Stanley Wojcicki, chairman of the High Energy Physics Advisory Panel (HEPAP).

SEAB Task Force created to make budget recommendations

One of the initial steps in the effort to deal with this problem was the creation of the Secretary of Energy Advisory Board (SEAB) Task Force on Energy Research Priorities. The Task Force, under the leadership of Charles Townes, was asked to consider the scientific priorities among the various Energy Research programs and initiatives. Their initial meeting was held September 19-20, 1991. After serious deliberation, they recommended, in light of the new budget realities, that any new starts in FY92 and FY93 be deferred at least until the individual program advisory groups could take another look at their priorities. This decision did not bode well for Fermilab because it included among the projects to be deferred the construction of the Main Injector. The Task Force further recommended that the advisory groups meet as soon as possible to address the question of funding priorities within each field.

HEPAP continues support for the Fermilab program

Given this charge, HEPAP met on October 28-29, 1991 to re-examine the high energy physics programs and initiatives. Characterized as a very "grim day," the panel based their discussions on three possible budgetary forecasts—one of which included the earlier projected 10% constant dollar reduction. The Main Injector project which had

earlier been cited by the HEPAP Sciulli subpanel as the "top priority in the U.S. HEP program" now faced tough scrutiny. However, after serious discussions and hard decisions, HEPAP stood behind its earlier recommendation and unanimously endorsed the physics goals of the Main Injector and its importance to assuring a forefront high energy physics program during the rest of the decade.

In a letter to William Happer, Stanley Wojcicki expressed the recommendations of the Panel: "Of the ongoing laboratory programs, we gave the highest priority to Fermilab. We reached that decision because it is the highest energy collider and fixed target accelerator in the world and it is optimally poised to explore many of the key issues of high energy physics today."

According to Happer, the high energy physics community has successfully made the case that this upgrade to the Fermilab Tevatron is needed for the long-term scientific vitality of the Laboratory. "I think that this is the most potent argument for the Main Injector—even if the top quark is seen this year at Fermilab, as a result of the many other improvements that have been made to the Tevatron, the Main Injector should still be built to enhance the physics productivity of the Laboratory," said Happer.

HEPAP subpanel to set long-range priorities

Throughout the October meeting, HEPAP was asked to limit itself to the discussion of the more immediate FY93 budget priorities. It was concluded that a study of long-range priorities was better suited to a subpanel. To this end, the 1992 HEPAP Subpanel on the U.S. Program of High Energy Physics Research was formed.

The seventeen member subpanel held its organizational meeting in Washington DC on December 16. Michael Witherell, University of California, Santa Barbara, accepted the chairmanship. "I am grateful to this group of physicists for their willingness to participate with short notice in what will undoubtedly be a difficult and painful task," said Witherell.

Although the subpanel faces a difficult task, the funding outlook is no longer as bleak as earlier projected. According to the charge issued by William Happer, the HEPAP subpanel is to make recommendations, starting with the level of funding as defined by the HEPAP subpanel continued on page 3

HEPAP subpanel continued

FY93 Presidential Budget Request to Congress, on the priorities for the national high energy physics program under the following scenarios: 1) level funding, in as-spent dollar (no adjustment for inflation); 2) level funding, in constant dollars (adjusted for inflation); 3) modest growth in funding above inflation (e.g., 2 to 3% real growth per year).

Happer asked the subpanel to address two key issues: what emphasis should be placed on university-based research compared to the operation of accelerator facilities at the DOE national laboratories; and whether construction of new or upgraded facilities should be initiated or pursued.

The subpanel was also asked to concentrate its efforts on the structure of the program for the next five years. "It would be helpful for the subpanel also to discuss the major elements of the base programs and their evolution through the period of transition to a U.S. program of high energy physics research which includes an operating Superconducting Super Collider. Account should be taken of the impact that availability of human resources may have on the balance among the various elements of the program," said Happer.

"Thoughtful input from the U.S. high energy physics community is crucial to inform the subpanel before its deliberations," said Witherell. The subpanel invites members of the community to send written comments on the issues put forth in Dr. Happer's charge. Comments should be sent to Michael Witherell in care of Earle C. Fowler, Subpanel Executive Secretary, ER-223, Division of High Energy Physics, Washington, DC 20585; or by electronic mail to FOWLER@MAILGW.ER.DOE.GOV (Internet address).

Those sending comments should indicate on the message that it is for the HEPAP subpanel. Fowler will see that all members of the subpanel are provided copies. "Please do not send additional copies directly to me or the other members of the subpanel by FAX or electronic mail. The size of the response is expected to be too large for such channels," said Witherell.

The subpanel will conduct a series of presentation meetings to which all members of the community are invited. The subpanel report is to be completed, reviewed by HEPAP and transmitted to DOE by April 15, 1992. "I hope the subpanel can finish its work in time to affect the FY94 budgetary process in its early

stages and have its report available for possible Congressional hearings in early 1992," said HEPAP Chairman Stanley Wojcicki.

HEPAP Subpanel members

- Michael Witherell, Chairman, University of California, Santa Barbara
- Gerald Dugan, Superconducting Super Collider Laboratory (SSC)
- Gary Feldman, Harvard University
- Jerome Friedman, Massachusetts Institute of Technology
- Mary K. Gaillard, University of California at Berkeley
- Donald Hartill, Cornell University
- David Leith, Stanford Linear Accelerator Center (SLAC)
- Hugh Montgomery, Fermi National Accelerator Laboratory
- Piermaria Oddone, Lawrence Berkeley Laboratory
- James Pilcher, University of Chicago
- Pierre Ramond, University of Florida
- James Siegrist, SSC
- A.J. Stewart Smith, Princeton University
- Sam B. Treiman, Princeton University
- T. Laurence Trueman, Brookhaven National Laboratory
- Stanley Wojcicki (ex officio), Stanford University
- Earle C. Fowler, Executive Secretary, Department of Energy, Division of High Energy Physics
- Patrick D. Rapp, Deputy Executive Secretary, Department of Energy, Division of High Energy Physics



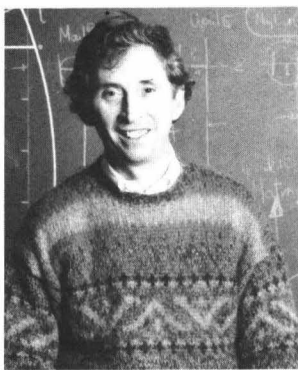
Thoughtful input from the U.S. high energy physics community is crucial to inform the panel before its deliberations.

—Michael Witherell, Chairman of the 1992 HEPAP Subpanel on the U.S. Program of High Energy Physics Research

Witherell photo courtesy of UCSB Public Affairs

HEPAP subpanel schedule of open presentation meetings

- January 24:
Cornell University
- January 25:
Brookhaven National Laboratory
- February 21:
SSC Laboratory
- February 22:
Stanford Linear Accelerator Center
- February 27 & 28:
Fermilab



The FY93 Congressional budget request is one step in the creation of Fermilab's program in the year 2000. Though an important step, there are many more steps to be taken. Just as the Nation will have to make difficult choices through this decade, so will the high energy physics community. The HEPAP subpanel will meet on February 27-28 at Fermilab to listen to the Laboratory and the Fermilab user community present their views of the future of Fermilab and how Fermilab will fit into the world picture of high energy physics. It is important that each physicist think deeply about the matters and formulate an opinion regarding how the U.S. High Energy Physics program might achieve excellence throughout this decade and the next. I encourage the physicists working at Fermilab to express their views in writing to the Chairman of the HEPAP subpanel, Professor Michael Witherell. — John Peoples, Director

DOE's confidence continued

Fermilab is 8% higher than the amount received last year.

Included in the 1993 budget proposal is a \$246 million request for Fermilab. Of this amount \$30 million is tagged for the Main Injector project and \$216 million is designated for the base budget. The base program request reflects a 5% increase over FY92 funding.

The recent announcement makes the funding outlook for Fermilab in 1993 look very positive. According to John Peoples, although the completion of the SSC magnet work currently being carried out at Fermilab will have an impact on the Laboratory, the requested budget for the Main Injector and the increase in the base funding will largely compensate for the loss.

"We did extremely well," said Peoples. "The proposed budget request reflects the confidence that DOE places in the Fermilab program."

SSC fares well in budget request

The Superconducting Super Collider Laboratory (SSC) is anticipating a 30% increase in funding over 1992. This level of funding reflects the project's status as both a Presidential Initiative and the high energy physics community's highest priority.

Since the SSC budget provides funds for the solenoid detector prototypes, this substantial increase in funding for the SSC is good news for the Fermilab physicists and engineers in the Solenoid Detector Collaboration who are participating in the design of the detector.

The SSC is a separate line item from the rest of the High Energy Physics budget in the Presidential budget request. The combined total of \$1280.9 million for both the SSC and High Energy Physics for FY93 represents from the viewpoint of Congress and the administration an overall increase for the field of 11% over funds available in 1992.

Directorate creates Office of Self Assessment

Lincoln Read named manager

Director John Peoples has appointed Lincoln Read manager of the newly created Office of Self Assessment.

This new office within the Directorate evolved from the Laboratory's response to a directive issued by Secretary of Energy James D. Watkins. In a memorandum dated July 31, 1990, Secretary Watkins called for all line organizations to implement a comprehensive self-assessment program to identify and characterize ES&H concerns relating to their operations. This Department of Energy (DOE) initiative developed from reviewing the preliminary trend analysis of the first six Tiger Team assessments. Among the key findings was that all six facilities lacked adequate programs to ensure that ES&H deficiencies were identified, reported and corrected.

Fermilab's first step in response to this directive was to conduct an internal self assessment. Chaired by Deputy Director Ken Stanfield, the Internal Self-Assessment Group thoroughly and systematically evaluated the Laboratory's ES&H and management programs. The outcome of this appraisal was a report to the Director regarding the status of the Laboratory's ES&H program.

As an outgrowth of the internal self assessment, a Lab-wide committee called the Environment, Safety and Health Policy Advisory Committee (ESHPAC) was established to evaluate and organize the Laboratory's approach and response to ES&H issues. The committee consists of one representative of each Laboratory Division and Section and is chaired by Associate Director for Technology Dennis Theriot. The alternate chairperson is Ken Stanfield and Lincoln Read serves as secretary. The committee was given nine charges to which to respond. The committee decided that many of these charges would best be addressed by subcommittees. One of the ESHPAC subcommittees that was formed was the Self-Assessment Program Plan subcommittee. The responsibility of this subcommittee was to prepare an on-going self-assessment plan for the Laboratory. Lincoln Read was named chairperson of this subcommittee and its other members were Carl Swoboda, Don Cossairt and Hans Self assessment continued on page 5

Self assessment continued

Jostlein. The result of the work done by this subcommittee was the Fermilab ES&H Self-Assessment Program Plan which was completed in September 1991.

In the Fermilab Self-Assessment Program Plan, new duties were assigned to the Directorate. These duties include organizing audits of the ES&H management of Divisions and Sections; reporting annually to DOE on the entire self-assessment program at the Laboratory; and conducting a triennial review of the scope and the effectiveness of the ES&H self-assessment program.

In response to these new duties, Dennis Theriot recommended that an Office of Self Assessment be established to oversee the implementation of the self-assessment plan. He further recommended that Lincoln Read be named manager of the new office. In his letter of appointment, John Peoples asked Read to "continue to assist Fermilab to achieve the same level of excellence in our ES&H programs as presently characterizes our research program."

Read's recent appointment is a continuation of goals he has been working hard to achieve over the past several months as a member and secretary of ESHAPAC and chairperson of the Self-Assessment Program Plan subcommittee. "Work can be done better, faster, more cost effectively and more efficiently when attention is given in a responsible, methodical fashion to environment, health and safety issues. In a sense, I feel that I may be 'more royalist than the king' in my belief in this program," said Read. "I believe in the Admiral's program in my heart, which is where it truly counts."

Self assessment involves evaluating what we do and how we do it, looking at the problems that exist, determining the causes of the problems and finding solutions. In his new role as manager of the Office of Self Assessment, Read's duties will include providing overall coordination for the Laboratory's self-assessment program; reviewing the Division/Section quarterly reports on self assessment for lessons learned and their applicability to other parts of the Laboratory; preparing for DOE the Laboratory annual report on self assessment; organizing the Directorate audits of ES&H management of Division/Sections; organizing the triennial review of the scope and effectiveness of the Fermilab ES&H Self-Assessment program; organizing audits for those aspects of the ES&H section that require independent internal reviews; serving as secretary to ESHAPAC; arranging subcontracted ap-

praisals as required by the Directorate and their followups; and assisting with DOE correspondence and DOE appraisal followups.

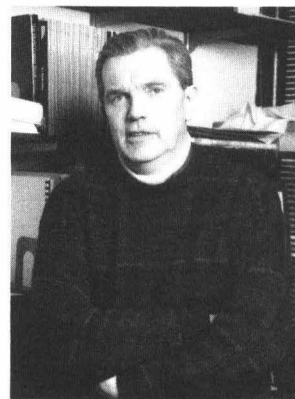
According to Read, implementation of the program will take time, because it will involve much education and a new way of thinking to adapt ourselves completely to Secretary Watkins' "New Culture." "The method by which we will approach ES&H policies and procedures in our work is not just for Fermilab employees. It is also for graduate students, users, contract workers—anyone who comes to Fermilab to work. They must know that we have a certain way of doing things and that the work must be carried out in a way that aggressively respects and protects the health and safety of everyone and also the environment which is so vital to all of us," said Read.

Lincoln Read, who has a long history of successful involvements at the Laboratory including collaborating on E87A and serving as head of Research Services and the Safety Section, is convinced that we will achieve excellence in our ES&H program. It is, however, a task in which all of us must take part. "It will involve everyone, from left to right, from top to bottom," said Read.

DOE and URA sign five-year contract



The U.S. Department of Energy (DOE) has extended its contract with the Universities Research Association, Inc. (URA) for the continued operation of the Laboratory. The five-year contract will extend to December 30, 1996. Seated are John Toll, President of URA, (left) and John Kennedy, Acting Deputy Manager, DOE Field Office, Chicago. Standing, Fermilab Director John Peoples (left) and Andrew Mravca, Manager of DOE's Batavia Area Office, witness the signing.



*We must change
our way of
thinking.*

*In order for our
plan to work it
will have to
involve
everyone—from
top to bottom.*

*I am not just
talking about
employees. I am
talking about
users, graduate
students,
contractors.
Anyone who
comes here to
work will know
that we have a
certain way of
doing things.*

*I believe that we
shall bring
Fermilab to the
same level of
excellence in its
ES&H posture
that it has
achieved in the
field of its
programmatic
mission.*

— Lincoln Read



Those were rough days. We'd bring up the machine and 'pow'!

—Frank Nezrick

Timeline: A date to remember

February 1972

The experimental program begins

High energy physics experiments can sometimes be compared to fine wine. That is, their character and certainly their complexity improves with time. Good examples of this are the massive collaborations now underway at CDF and DØ — experiments involving thousands of tons of detector equipment and personnel by the hundred. These colliding beam experiments begin at an energy range where the lower energy fixed target experiments leave off and can be viewed as evolutionary in nature.

Other times though, the oft-applied analogy of a vintage improving with age doesn't always apply in physics. Case in point, the very first experiment performed at Fermilab in February of 1972 may have been the best run ever vinted in Laboratory history. Not as measured by short-lived experimental results, but in terms of long-term international significance.

"Expt. 36" was the nondescript number/name given to the first experimental group to run at Fermilab. In all ways, the fifteen people who would ultimately form the team bore no physical differences from the similar though much larger groups conducting research today at the Lab.

The origin of the experiment can be traced to a 1970 conference in Kiev where Fermilab physicist **Ernest Malamud** had met with Soviet physicist Vladimir Nikitin to discuss a collaboration involving the two countries. The idea they presented to Director Robert Wilson shortly thereafter for a proton-proton elastic scattering experiment using a gas-jet target earned his approval, setting the stage for Fermilab's first U.S./U.S.S.R. collaboration.

Chuck Schmidt (AD/Linac), then a young physicist working in the Accelerator Division, remembers well the series of events that led to the startup of the experimental program. He first came to Fermilab in 1969 to build magnets. The expertise he acquired in that discipline later made him a

natural candidate to sit at the controls of the machine he helped build.

The early days of the Lab were unique and filled with a sense of anticipation, Chuck recalls, and after two years of building and diagnosing the Main Ring magnets he was eager to see how they performed. Once the Main Ring was completed in 1971, however, it would take another year before operators could tune the accelerator to make the beam complete a single turn around the ring. Then there followed another period of activity to get consistently more than one turn.

Stabilizing the beam could and would be done, it was largely just a matter of perfecting the technique over time. Chuck recalls then-Director Robert Wilson announcing words to the effect that 'We're going to keep people on the shifts until we get beam.' From late 1970 to early 1971, an Accelerator Division operations group of 12 people worked in three shifts, eight hours a day, weeklong to get the accelerator up and running. "We just went seven days a week nonstop," Chuck said.

At the time, **Frank Nezrick** (Physics) was also working the night shift, from 9 p.m. to 9 a.m. Frank was a member of Power Supply Group B, and his job was to get the accelerator running. Moisture that had formed in the magnets after the warm pieces of metal were placed into the cool tunnel, however, hindered the task. "Our job was to bring up the voltage on the accelerator," Frank said. "We'd bring up the machine and 'pow!'" The moisture would blow out a magnet.

Very often, Frank found himself running out of the Main Control Room in the dead of night during winter and jumping into Helen Edward's Jeep to pinpoint the failed magnet's location. Once the problem magnet was located, he and Helen would cut its power. Then, they disconnected the magnet from the accelerator using a chain saw to cut the electrical bus leads to and from the magnet. The beam could coast through the powerless magnet, and Frank returned to the Main Control Room to repower the accelerator. "Those were rough days," said Frank. "She worked me under the table."

By the next day though, the night crew had replaced the failed magnet(s), and Frank would have to restart the process of ramping the accelerator, only this time with a fresh set of variables. "We'd do that day after day after week after month," he remembered.

Timeline continued on page 7



Frank Nezrick (2nd from left) and Chuck Schmidt (2nd from right) sit in the control room shortly after 9:20 p.m. on February 11, 1972 when beam reached 100.4 GeV.

By February 11, the power supply group had isolated enough faulty magnets to ramp the accelerator beam to record levels. The first record to fall was the 70 GeV record held by Serpukhov in the Soviet Union. The second was when the accelerator hit 100.4 GeV. "When we hit a milestone, the Main Control Room filled up," Frank said.

One-third of the way around the ring, at CØ, one-half of the E-36 collaborators were keeping up with the pace of the operators. The business end of the accelerator for their purpose wasn't located in a fixed target area or in a collision hall. It was located at an internal target located in the Main Ring. For E-36, the Soviets had built the gas-jet target and contributed the fast electronics the experiment would need. The U.S. had supplied the solid-state detectors, the on-line computers and interface, the liquid helium system and portions of the vacuum system. Weekly telex conversations had preceeded the cross cultural exchange of technology, hoping to work out any defects in the equipment before the two groups had assembled at Fermilab. Though their equipment had preceeded the actual arrival of the Russians, the components they supplied ran smoothly on February 12 when the experiment began receiving beam.

The first Russian physicists and their families finally arrived at Fermilab on March 8, 1973, and a success-

ful series of experiments ensued. E-36 led to another internal target experiment, E-186, and by 1975 a total of fourteen experiments had either been completed or proposed in conjunction with Russian collaborators.

The tradition of exchange still continues today in joint fixed target ventures and in the DØ colliding beam experiment. On a scientific level, the first experiment proved highly successful in uniting two groups of people who were geographically half a world apart and politically polar opposites. The originators of the U.S./U.S.S.R. collaboration not only brought the two countries together in the sometimes partisan field of science, but also on the universal plane of kinship. Perhaps Ernie Malamud sums it up best: "Vladimir Nikitin and I have remained close personal friends since 1970 when we first met." —Brian Dick

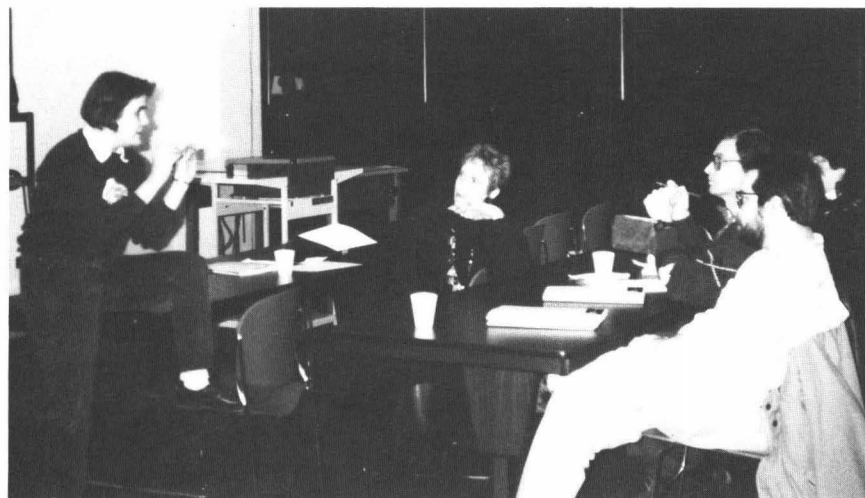
This is the third in a series of articles celebrating the 25th anniversary of Fermilab (1967-1992). Throughout 1992, Ferminews will feature Timeline: A date to remember as a regular column dedicated to milestones that occurred during the first twenty-five years of physics at the Laboratory. Ferminews welcomes employee submissions, either in the form of written articles or story ideas, to the column.



We just went seven days a week nonstop. The first turn [of the beam] was certainly a milestone.

—Chuck Schmidt

Education update



The West Chicago Elementary School District #33 Science Committee visited Fermilab on January 13 to learn more about the programs and services offered by the Education Office. During their half-day visit, members of the Education Office staff made informal presentations. Marge Bardeen presented an overview of the services the Science Education Center will soon offer. Susan Dahl discussed the Teacher Resource Center, Dave Abler outlined the Informal Science programs and Robin Dombeck presented the Teacher Outreach programs. The visit was concluded with a roundtable discussion led by Research Division Deputy Head Gina Rameika during which she evaluated science programs and their success in teaching the scientific method. "Science is a way of thinking, not a collection of facts," said Rameika. "It is important for students to know how to ask good questions." Pictured (l to r) are Rameika and District #33 science teachers.

How observant are you?

Flag changes

Have you noticed that two new flag poles have been erected on each side of "Old Glory" in front of Wilson Hall? These two new poles will soon fly the flags of the Department of Energy and the State of Illinois.

More flag information

The Russian Republic flag is currently being flown in front of Wilson Hall. When Commonwealth of Independent States (CIS) was established, the Laboratory contacted the White House Office of Etiquette and Protocol. We were told that since CIS does not have an official flag, the Russian Republic flag is currently being diplomatically recognized. The position of the Russian flag has also changed in the line-up outside of Wilson Hall. This is because the flags are flown alphabetically (east to west) according to the name of the country.

Quality corner

Education Office benefits from SQIPs

I just completed the first draft of the Education Office SQIP. For those who do not know, SQIP—pronounced Skwip—stands for the Specific Quality Implementation Plan. Before embarking on this project, Mark Bodnarczuk, Quality Assurance Manager, gave a presentation to the Laboratory Services Section supervisors in which he explained very clearly what a SQIP is all about. When he finished however, I still was not sure where to start. So guess what I did? I read the FIQAP.

For those who do not know, the FIQAP is the Fermilab Institutional Quality Assurance Program. I figured what was good for Fermilab as a whole is good for the Education Office. Thus the Education Office SQIP was born.

As a young organization, the Education Office and its programs are growing rapidly as the demand for hands-on science and math programs grows in the education community. We are currently offering well over 40 programs, twice as many as we did just a year ago. In the process, we are learning how the system works at Fermilab; new policies are being formulated; files are proliferating; program proposals and reports are multiplying; we are seeking training; and we are being trained. You get the picture! In the midst of all this comes the deadline from our section head to produce a SQIP and I am not very happy about it.

To my surprise, I found this to be a very useful experience. Preparing the SQIP gave us a framework to rethink what it is we do and how we do it. It gave us an opportunity to reconsider which are the important elements that guide our organization, a chance to review what is important and what is less important. My vision, three days prior to starting the project, of hundreds and hundreds of pages of SQIPs in reality became two pages of bullets that we separated into 21 pages in the SQIP notebook. During this process I organized, in my mind, a "SQIP shelf" with existing manuals. I created new folders of easily accessible information about the Education Office and its procedures. I reorganized my office files. Give us another month and it will all be done. Advice: Don't be shy, ask Mark for assistance. He is very good at it.

—Stanka Jovanovic

Milestones

Edward Kessler retires

Edward Kessler (AD/EE Support) retired January 3, 1992 after almost 22 years of service. Ed (badge #967) joined the Lab in the EE Support Group in July 1970.

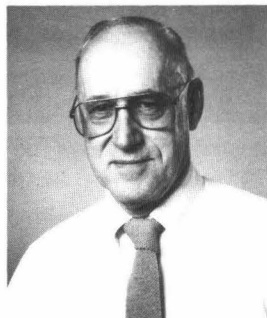


The EE Support group lends electrical engineering support to the Accelerator Division. Throughout the years, there were many interesting and challenging projects, said Ed. "The one that stands out as the most exciting was, unfortunately, one that our group didn't get to complete. That was building a superconducting transmission power line from the Master Substation to the Main Ring."

Now that he is retired, Ed plans to spend time at his vacation home in Florida and do some travelling.

Mel Storm retires

Mel Storm (AD/Controls) retired January 31, 1992. Mel, who joined the Laboratory on May 1, 1970 has seen many changes take place over the last 22 years. "We were really pioneering in the early days," said Mel.



Mel has been with the Controls group since he started at the Lab and has been involved in the development of several computer control software systems which include the Sigma II/Mac system; the Xerox 530/Mac system and the VAX 11-780/PDP-11/Mac System.

After retirement, Mel plans to finish building his vacation log home in Door County, Wisconsin. "From programming to carpentry is a big jump, but I'm really excited about this project," said Mel. He also plans to do woodworking projects, furniture refurbishing and to compete in senior citizen tennis tournaments.

In memoriam

Ray Carra

A fellow worker recently passed into "the big accelerator in the sky."

It seems that we often wait until a person is gone to expound on his or her qualities as an employee. I don't feel in **Ray Carra's** case that is needed. The people he worked for and with know all those qualities. Ray was a friend, he was a great guy to work with who actually made coming to work fun. He always had a joke or an amusing true-life story to share.

Ray would often close out a conversation with the following: "Well that's it then." I think that sums it up.—*Andrew Oleck*

Ray Carra passed away on November 26, 1991. He was a member of the Technical Support Engineering Department.

Frank Pipkin

Professor **Frank Pipkin** of Harvard University passed away suddenly on January 5, 1992. Dr. Pipkin had strong ties to Fermilab. Over the years, he collaborated on several Fermilab experiments and also served the Laboratory as a member of the Physics Advisory Committee. At the time for his death he was a member of Fermilab E665, the CLEO experiment at Cornell and an experimental program in atomic physics.

Professor Pipkin earned his undergraduate degree from the University of Iowa and his Ph.D. in Physics from Princeton. He was head of the Harvard Physics Department from 1985-1988 and was Dean of Faculty at Harvard from 1974-1977. During his career, he helped plan and oversee the building of the Cambridge Electron Accelerator.

Dr. Pipkin is survived by his wife, Phyllis Burr Pipkin, two daughters, Jane Pipkin and Augusta Pipkin Heywood and one brother, Larry Pipkin.

A memorial service for Dr. Pipkin will be held in Memorial Hall at Harvard University on February 28, 1992 at 1:00 p.m. Members of the community are welcome to attend. Memorial donations may be made in his name to the American Heart Association.

Social Security & Medicare Taxes increased for 1992



Effective January 1, 1992, the Taxable Wage Base for Old Age, Survivors, and Disability Insurance (Social Security) was increased from \$53,400 to \$55,500. The Taxable Wage Base for Health Insurance for the Aged (Medicare) was increased to \$130,200.

Your employer is required under Social Security-Medicare Laws to deduct a tax of 7.65% (6.2% for Social Security and 1.45% for Medicare) from each of your pay checks until your earnings reach \$55,500. Your employer will also pay a matching 7.65% of the first share toward your Social Security and Medicare benefits.

Under the new law, your employer is required to deduct the 1.45% Medicare tax on the first \$130,200 of your earnings. Your employer will also pay an equal amount (1.45%) toward your Medicare benefits.

Benefit notes

New Group Insurance Plan Certificates

In late January new Group Insurance Plan booklets (printing date 11/91) were mailed to all employees' mail stations. The booklet includes information on the Connecticut General group life and dependent life insurance program, and the Connecticut General medical plan. The booklet is your life and medical insurance certificate, and it replaces all other prior certificates from Connecticut General. Please note, even if you are in an HMO you should have received a copy of this booklet because the life insurance applies to you. Anyone who did not receive a copy should call the Benefits Office at extensions 3395, 4362 or 4361.

Group Dental Insurance Plan

Page 38 of the Group Dental Insurance Plan certificate (printing date 4/91) is incorrect. A replacement page was mailed in late January to all employees' mail stations. The replacement page has a label backing so it can easily be placed over the original page. Anyone that did not receive a copy should call the Benefits Office at extensions 3395, 4362 or 4361.

TIAA-CREF Supplemental Retirement Annuities

Loans are now available from your TIAA-CREF Supplemental Retirement Annuities. The most you can borrow is the lesser of 45% or \$50,000 from your combined TIAA-CREF SRA accumulations. The interest rate on the loan is variable, can change every 3 months and is indexed to the Monthly Average Corporates yield published by Moody's Investors Service. For more information please call TIAA-CREF Participant Information Center at 1-800-842-2776.

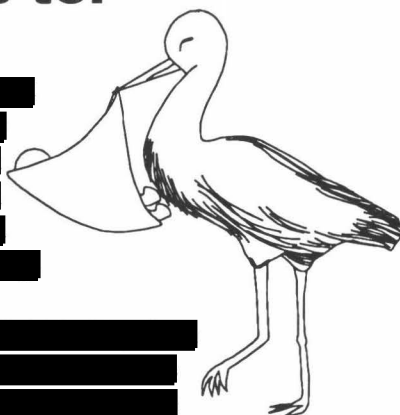
Please note that loans are available only from TIAA-CREF Supplemental Retirement Annuities. Loans are not available from TIAA-CREF Retirement Annuities which are your contracts under the Lab's old and new pension plans.

Congratulations to:

[REDACTED]
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Mamography screening scheduled on site

One out of 10 women in the U.S. will be diagnosed with breast cancer this year. According to the National Cancer Institute, more than 44,000 women will die of breast cancer this year alone. Breast cancer begins with a few cells too small to be seen without a microscope. If it spreads beyond the breast and attacks the rest of the body, it can be life threatening. Early detection is the best defense against breast cancer, allowing for simpler treatment and higher cure rates. If breast cancer is detected early enough, it is almost 100% curable. That is why regularly scheduled mammogram screening is so important.

The American Cancer Society recommends that women between the ages of 35 and 40 have an initial baseline mammogram, and that women between the ages of 40 and 49 be screened every one or two years. Women age 50 and over are advised to have a mammogram annually.

Fermilab will once again be offering on-site mammography screening for female employees and retirees as well as spouses of male employees and retirees. The screenings are administered by Delnor-Community Hospital. They will set up a portable unit staffed by skilled female technologists. Screens are provided for privacy and comfort.

Screenings are scheduled for March, but you must register in February. The schedule is as follows:

REGISTRATION:	February 20, 1992 11:00 - 1:30 in the cafeteria
COST:	\$70.00
SCREENING DATES:	March 9 - 12, 1992
TIME:	8:00 a.m. - 5:00 p.m.
LOCATION:	1 West, Wilson Hall

At the registration, you will make an appointment for a screening and complete a health history form. Payment by cash, check, VISA or Mastercard must be made at the time of registration. Mammograms are now a covered expense under the Connecticut General plan.

A mammogram only takes about 15 minutes and is a relatively painless procedure. With the convenience of on-site screening, this would be a good time to take advantage of this opportunity to protect your health. It could save your life.

Support Services announces service reductions

As you may have already noticed, the operational hours of the Wilson Hall stockroom have been reduced due to staffing levels. The new hours are: 8:30 a.m. to 11:45 a.m., and 12:30 p.m. to 3:30 p.m. Also, it should be noted that it may be necessary to close the Wilson Hall stockroom from time to time without prior notification. The Site 38 stockroom at Warehouse #1 will continue normal operations.

Also due to staffing levels, Vehicle Maintenance will not be available to assist employees and visitors in starting their private vehicles as they have done in the past. We are sorry for any inconvenience these actions may cause.—David Carlson

Technology presentation on display in Wilson Hall

A graphic presentation on Fermilab Technology will be on display in the Wilson Hall atrium during the month of February.

This visual array, designed to facilitate technology transfer, was created by the Fermilab Visual Media Services department for the NASA 2001 Technology Show. NASA 2001, sponsored by the National Aeronautics and Space Administration, was held December in San Jose, California and included participants from private industry as well as federal and other DOE sponsored laboratories.

Dick Carrigan, Manager of the Office of Research and Technology Transfer (ORTA) and John Venard, Fermilab Licensing Officer, represented the Laboratory at the event. According to Venard, 4,000 professionals attended. "Our participation in NASA 2001 was a technology outreach effort," said Carrigan. "It was an interesting way to present information about Fermilab technology transfer opportunities in a 'soft-sell' format." While attending the event, Carrigan and Venard met with an estimated 300 people and distributed information about licensing and cooperative program opportunities from URA.

Fermilab International Film Society

February's screenings will be shown in Ramsey Auditorium at 8:00 p.m. Admission costs \$2.

Friday, February 14: *Queen of Hearts*

A story of love, family and fortunes won and lost, is told from a ten-year old boy's imaginative perspective. Truth, exaggeration and legend become mixed. Jon Amiel, dir. G.B., 1989, 113 minutes.

Friday, February 28: *Dreams*

In eight separate dreams, writer-director Akira Kurosawa explores humanity's alienation from nature. Japan, 1990, 120 minutes.

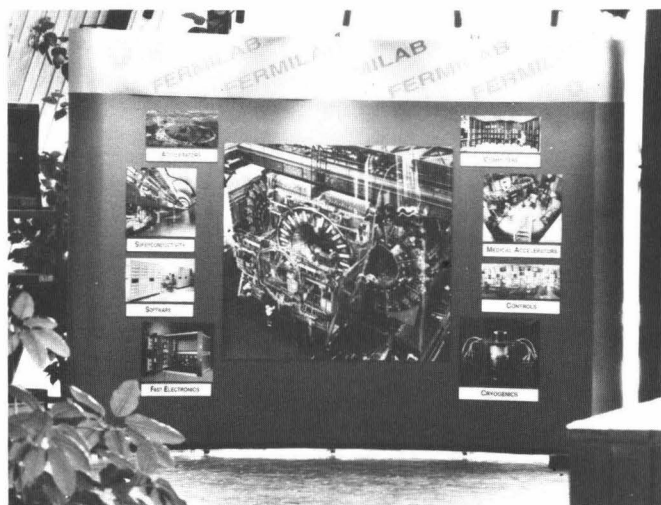
Dan Moline appears in Auntie Mame

The No Center Aisle Theatre Company will present the stage play (not the musical version) of *Auntie Mame* at the Norris Cultural Arts Center in St. Charles on February 7 and 8 at 8:00 p.m. and February 9 at 2:00 p.m.

Dan Moline of the Computing Division/DA Electronics, has been cast for three roles; the Bishop, the Theatre Manager and Cousin Jeff. Dan previously starred in *Front Page* at College of DuPage, *Call Me Madam* and *You Can't Take it With You* with Playmakers of Geneva. For ticket information call the Norris Box Office at 584-7200.

On-site housing deadline

The deadline for receipt of reservations for summer on-site housing is March 2, 1992. Housing assignments will be made in April, and responses should be mailed out by April 15, 1992. The starting date for summer occupancy is June 1, 1992. For further information, please contact the Housing Office at 708 840-3777, VAX mail FNAL::HOUSING or Fax 708-840 2823.



Dick Carrigan commended Fred Ullrich, Reidar Hahn, Jim Shultz, Sheila Colson and Jan Olsen of the Visual Media Services department for their work on designing the presentation materials and accompanying video tape. "They just did a fine job and they were great to work with," said Carrigan.

The Office of Research and Technology Applications is happy to lend the graphic presentation and video tape to any interested Fermilab individual or group who will be making a presentation about the Lab. For further information, contact ORTA x3333.

Another Fermilab logo font available

Randy Herber (CD/Distribtd Comp.) wrote a Postscript description of the Fermilab logo about two years ago on his leisure time and personal equipment. After reading the December 20 *Ferminews* article about the availability of the logo as a font for use with the Macintosh, he wanted to let the readers know that his font is also available. Herber's version is a single character Adobe PostScript™ type 3 font. Anyone wishing to access this approved, accurately drawn logo font, may contact Herber at x2966, FNAL::HERBER, WH6W.

NALREC news

Don't miss the Leap Year/Sadie Hawkins' Day Party February 28. Connie's deep dish pizza will be served and raffles or bids will be taken for restaurant certificates. You won't want to miss this, so mark your calendar.

Attention all baseball fans: We will be going to see the Kane County Cougars in 1992. Fermilab Day will be Saturday, June 13 at 7:00 p.m. It's a Saturday night; keep it in mind.
—Charlotte Smith

Fermilab art series presents: *Ain't Misbehavin'*

"The Joint Is Jumpin', the Joint Is Jumpin'..." in *Ain't Misbehavin'*, the stompin', struttin', high-hattin' smash winner of the coveted Tony Award for Best Musical of the Broadway season. Daedalus Productions returns to Fermilab's Ramsey Auditorium with a dazzling, unforgettable musical on Saturday, February 22 at 8:00 p.m.

Raucous, joyful and sometimes bluesy, *Ain't Misbehavin'* celebrates the life and good times of one of the 1930's most beloved clowns and jazzmen, Thomas "Fats" Waller. Set in a delectably lowdown Harlem nightclub, *Ain't Misbehavin'* recreates "Fats" Waller's world as the singers dance and flirt from table to table. Accompanied by on-stage piano, these supple performers bop, jive and slither through over twenty-five songs, including such sensual classics as "Honeysuckle Rose," "I Can't Give You Anything But Love" and the original mad lover's lament, "I'm Gonna Sit Right Down and Write Myself A Letter."

One of the first black superstars, "Fats" Waller lived fast and furiously. His incredible vitality and sly sense of fun is joyously captured in *Ain't Misbehavin'*. Always ready for the next of life's pleasures, "Fats" said it all in his famous motto: "One never knows, do one?"

Daedalus Productions is one of America's most renowned touring troupes. Fermilab audiences may remember this group from their outstanding productions of *Purlie*, *For Colored Girls*, and *A Soldier's Play*. For the past two decades, audiences nationwide have cheered its presentations of over twenty-five Broadway shows.

Admission to *Ain't Misbehavin'* is \$14. For further information or telephone reservations, call 708-840-ARTS weekday from 9:00 a.m. to 4:00 p.m. At other times an answering machine will give you information and a means of placing ticket orders.

Harper's index

Number of times since 1982 that Punxsutawney Phil, the nation's "official" groundhog, saw his shadow on February 2: 7.

Classified ads

Automobiles

1978 Pontiac LeMans, 2-door, good running work car. \$400 o.b.o. Call evenings and ask for Doug at 708-801-0306.

1980 Olds Delta '88, Holiday Coupe, AM/FM stereo cassette, A/C, power doorlocks/drivers seat/windows, rebuilt 350 V8 engine, recent brakes and radiator. \$750. Call Jack at x4191.

1983 Olds Brougham, white, 4-door, p.s., p.b., A/C, cruise control, power seats, loaded, 60k miles. \$3,800 o.b.o. Call Ernest at 708-896-5930.

1985 Chevy Chevette, 4-door, low miles, no rust. \$1,600. Call Jim at x2790.

Appliances

Avocado green refrigerator, 19 cubic feet. \$50. Call Ray or Betty at 708-879-2488.

Frigidaire dishwasher, NEW - in box, power scrub, water pre-heat, air dry, rinse and hold. \$200. Call Ed at 708-690-1145.

Roper 30" gas range continuous clean oven, cook and keep, glass oven door, Harvest gold color. \$50. Call Ed at 708-690-1145.

Pets

Golden Retriever puppies, five males, will have shots and be ready by February 8. Call Glen at x3728.

Real Estate

For sale by owner, four bedroom raised ranch, move in condition, 2 1/2 baths, living room, dining room, kitchen, workshop, family room overlooks beautiful backyard. Near park, bike path & I-88. \$165,000. Call Steve and x3428 or 708-879-7208.

Miscellaneous

0.45 Carat Marquis cut Diamond Ring with accompanying Gold Ring. Appraised at \$1,600. Will sell for \$850 or reasonable offer. Call Mike at x4518.

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FERMILAB

(14 COPIES)