

FermineWS

FERMI NATIONAL ACCELERATOR LABORATORY

Tiger Team roars out of Lab

The Department of Energy Tiger Team held its final closeout meeting on June 8 in Ramsey Auditorium, marking the end of a month-long assessment.

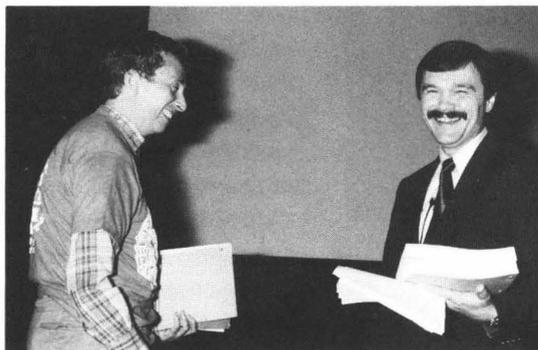
Before a capacity crowd, the message of the Tiger Team members was clear. The Laboratory has the right attitude, but there is much work to be done. Fermilab has, according to Tiger Team leader Harry Season, many islands of excellence but also islands of mediocrity in terms of its ES&H programs and management.

As each leader of the Tiger Team subteams presented his or her final report, they unanimously pointed out that Fermilab's management team and staff have demonstrated a commitment to pursue excellence in the management of ES&H programs. "For the most part, the Tiger Team findings and concerns are related to those additional steps that Fermilab must take to ensure that it operates in full compliance with applicable laws and regulations," said Harry.

According to Tim Pflaum, Deputy Tiger Team leader, Fermilab is "on the right track and has the wherewithal in its self-assessment program to move forward." Tim continued, "Now that the Tiger Team Assessment has been completed, Fermilab has a reliable and comprehensive set of information about its strengths and weaknesses. Management can use this information to move forward with the next phases of the cyclical self-assessment process."

Upon accepting the Tiger Team draft report, Director **John Peoples** said that the information provided by the Tiger Team Assessment is very important to understanding "what we need to understand." "We are really coming to grips with understanding what we need to know to reach excellence in environment, safety and health," said John.

Two years ago Fermilab began a process designed to determine how to change the ES&H culture at the Laboratory. The first step in this process was the self-assessment which took about a year to complete. From that self-assessment, "We realized that we had a lack of coherence in ES&H programs across the divisions and sections and that our environmental program was weak," said John. "I feel we have come a long way over the last two years to develop the tools



John Peoples receives the draft Tiger Team report from Harry Season.

to address our problems."

The scope of the recent Tiger Team Assessment was broad. It covered ES&H activities and management systems not only at Fermilab but also at the Department of Energy. The Tiger Team Assessment of DOE included the Batavia Area Office, the Chicago Field Office and the Headquarters Office of Energy Research.

The 55 members of the Tiger Team, most of whom were technical experts in their functional areas, covered not only line management activities, but also those associated with oversight and self-assessment.

Throughout their four-week stay, the Tiger Team conducted hundreds of interviews, reviewed documents and visited many facilities in order to gather the information needed for their final assessment report. Harry Season will deliver a report to Head of Energy Research William Happer on June 17. The Laboratory and DOE have approximately two weeks to submit any corrections to the factual accuracy of the draft report before the final report is delivered to Secretary of Energy James Watkins. The content of the assessment report will not be available to the general public until the Secretary has reviewed and released it and it has been made available to Congress.

In preparing the report, most of the Tiger Team members were not allowed to review results of the the Fermilab self-assessment until the end of the process. At the end, they reviewed the self-assessment. *Continued on page 2*

inside

Simon says
page 2

■
**Lab prepares
action plan**
page 3

■
**Announcements
& events**
page 4

■
FIA meeting
page 6

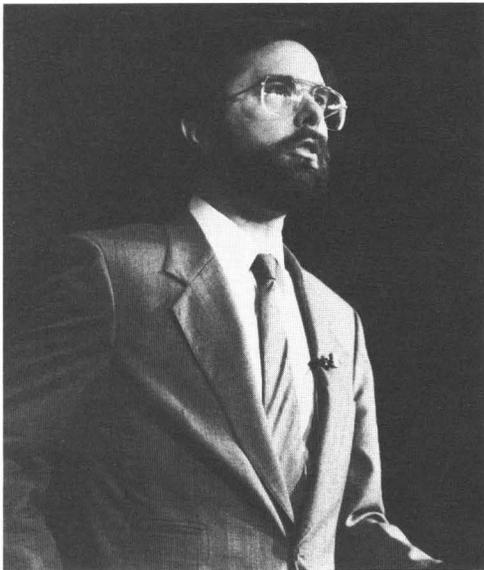
■
Education
page 8

■
FermineWS is
published by the
Fermilab Publications
Office.
MS 107, P.O. Box 500
Batavia, IL 60510
708 840-3278
FNAL::TECHPUBS

The deadline for the
Friday, July 3 issue of
FermineWS is
Wednesday,
June 24. Please send
your article
submissions or ideas
to the Publications
Office.

Fermilab is operated
by Universities
Research Association,
Inc. under contract
with the U.S.
Department of
Energy.





Simon says

Bob Simon, principle Deputy Director of the Office of Energy Research (ER), Washington, D.C., was one of the participants in the June 8 Tiger Team close-out meeting. The following are excerpts from his presentation:

I want to make sure that you know that back at Energy Research (ER) we have a tremendous amount of gratitude and thanks to the staff and leadership of this laboratory for their outstanding cooperation with

the Tiger Team over the last couple of weeks.

...We firmly believe that Fermi is really one of our finest labs in the ER system. We're looking for great physics from you over the next decade or two.

After a lot of soul searching last year—helped along by Dr. Townes and his committee and Mike Witherell and his subpanel at HEPAP—I think we've come to the basic conclusion that continued investments in Fermilab and keeping Fermilab at the state and at the edge of the art is going to be excellent investments in high priority, high productivity physics—particularly with regard to the Main Injector. So we're going to look forward to finding ways to move forward to help you achieve your full potential in terms of physics productivity over the next two decades.

Fermilab also has the potential of being one of the finest labs in the ES&H area. I think that the

findings of the Tiger Team—that you've got a nice collection of islands of excellence in ES&H—is very encouraging. The challenge, of course, as other people have mentioned including John [Peoples], is how to expand those islands of excellence into continents. You've got the wherewithal to do that and I think that we're [ER] going to do our best to make resources available to help you achieve your full potential in those areas as well. Admiral Watkins has made it clear time and time again that ES&H is not a hobby—it's a fundamental requirement.

...We firmly believe in the Office of Energy Research that ES&H is totally compatible with the performance of good research. ...We've expended a great deal of effort at a variety of levels so far to develop programs. We've made a lot of progress. On the journey of a thousand miles, I think we're several hundred miles down the road. But, we've got a lot to do. I think that we will try very hard to continue down the road hand-in-hand, working close together. There's certainly a lot that you've learned through this process that we need to hear about back in Washington in terms of suggestions for improvement—suggestions from your point of view of how to achieve excellence. I want you to know that we have our eyes and ears open for suggestions from the laboratory community as to how we can best implement excellence in ES&H in a way that is cost effective, program effective, science effective, ES&H effective—effective across the entire spectrum of activities that take place under the aegis of the Office of Energy Research. So I want to thank and congratulate you for your performance. I want to pledge our cooperation in helping you to achieve not only your programmatic objectives over the next decades, but also ES&H objectives as well.

...We firmly believe that Fermi is really one of our finest labs in the ER system. We're looking for great physics from you over the next decade or two.—Bob Simon, Office of Energy Research

Tiger Team roars continued

ment documents with the assistance of Lab personnel to determine the number of findings and concerns that had been previously identified. "This assured the integrity of the TTA by forcing the Tigers to do their own work thoroughly and in an unbiased fashion," said Harry. "I can assure you that the Team's original goal, to report only those findings or concerns that were solidly based in fact, has been met."

John Peoples characterized the Tiger Team Assessment as thorough and fair. "We learned a lot during the last four weeks. What made us really delighted was your [Tiger Team's] interest in our goal to find the top quark. This is important because it shows we can have a common objective." John

stated that the Directorate will be making changes in the way it manages ES&H programs. "To make changes in how your culture works is slow, but we will achieve consistency." "We always wanted to achieve excellence in the environmental areas and have the Lab—which is open to the public—be an example of what can be done within the DOE family," said John.

In Harry Season's closing remarks, he stated that the Tiger Team believes that excellence in ES&H programs and research can be simultaneously obtained and the two functions are synergistic. "I believe you understand the magnitude of the deficiencies...Your islands of excellence must be expanded to include the entire Laboratory."

Lab moves into next phase of the Tiger Team Assessment

Now that the Tigers have departed, the Laboratory has begun the next phase of the Tiger Team Assessment, the preparation of the corrective action plan.

The corrective action plan states how the Laboratory will solve the problems cited in the draft assessment report submitted to the Laboratory at the June 8 final closeout meeting by the DOE Tiger Team. The plan must address each of the findings and concerns and include a concise statement describing the finding, a description of planned action(s), and a schedule for completion with intermediate milestones. The plan must also include an estimation of resources in terms of people and dollars. Documents, studies and plans that provide additional details may also be included.

To begin this process, all Tiger Team findings and concerns were entered into the ESHTRK database and given descriptors that identified the category, class and DOE performance objective. This was done throughout the assessment as the findings were found and finished when the draft assessment report was completed. According to Associate Director **Dennis Theriot**, with the daily closeout meetings and the escorts' reports, there weren't any surprises. After all findings and concerns were identified, individuals were selected to take primary responsibility for developing each action plan. The selection of these individuals was done in consultation with members of the Directorate and division and section representatives. In cases when the finding crossed division/section lines of responsibility or the finding was complex, "secondaries" were selected to assist the primary individual with the action plan preparation. "Typically, the primary individuals are given a form for each finding. They have to fill in information and give a brief discussion of the proposed action which may consist of several tasks," said **Hugh Montgomery**, leader of the Action Plan Team. They are also asked to describe each task and give a time duration for its completion. In addition they must determine if the task requires additional human resources, materials and services. The latter is done to determine the new costs for carrying out the plan.

"The process is fairly formalized, but, nevertheless, the information that they have to come up with is quite specific and quite detailed. It is a nontrivial effort to produce these," said Hugh. Some

people are responsible for producing several of these plans. Because of the tight schedule for completion of the corrective action plan, these initial plans must be completed by June 17.

After the individual action plans are completed, they will be reviewed for completeness and responsiveness by the Action Plan Team. The Action Plan Team includes: **Hugh Montgomery**, leader; **Rich Stanek**, deputy leader; **Gerry Bellendir**; **Kevin Cahill**; **Tom Nicol** and **Dan Wolff**.

After the review, which is scheduled for completion around June 20, the individual action plans will be assembled and printed and given to the division and section representatives for review. This stage of the Action Plan is termed Draft 0 and is to be completed by June 24.

During the week of June 22-26 subteams will prioritize the findings based upon a risk analysis and begin the scheduling which is integral to the budget process. **Dennis Theriot**, **Bob Ducar**, **Bob Trendler** and **Tim Miller** comprise the subteam responsible for risk analysis and will use a process for prioritizing based upon a system developed by DOE. **Harlan Dick**, **Dave Carlson** and **Vicki Davis** are the members of the Budget subteam and they will produce a profile of dollars and effort.

By July 8, the Laboratory must complete Draft 1 of the action plan which is then reviewed for completeness against DOE Guidance. At this stage, timescales and milestones, which reflect budget guidelines and priorities, are smoothed over a 5-year period and interrelationships between action plans and tasks are clarified.

The Laboratory is then ready to prepare Draft 2 which must be completed by August 8. Draft 2 of the Corrective Action Plan is internally reviewed by the Directorate and divisions and sections and then reviewed for content by the DOE Batavia Area Office, Chicago Operations Field Office and the Office of Energy Research, Washington, D.C.

After modifications from reviews are incorporated, Draft 3 is submitted by William Happer, Director of the Office of Energy Research to Paul Ziemer, Assistant Secretary for Environment, Safety and Health. After the report is approved by Zeimer, it is then submitted to Secretary Watkins. "Upon Admiral Watkins' approval, the corrective action plan becomes a formal document and we will have to begin carrying it out," said Dennis Theriot.

The Tigers have come and gone and now the real work has begun to make the Laboratory a safer place for employees and the public.

Preparing and following up with this process has taken a great deal of effort on the part of many people at the Laboratory. The Directorate, as a whole, was extremely gratified by the way the Laboratory pulled together—came together and had the excitement of twenty years ago.

While there were many people on the front lines, who we all initially think about, we must not forget the people who were not directly involved, but who, in some cases, did double duty to fill in for those who were in the front line.

It is nice to see that this spirit still resides. We tend to forget about it in the day-to-day running of the Lab, but it is one of the things that makes this a great place. —Bruce Chrisman, Associate Director

Annual Report available

Fermilab's 1991 Annual Report will be available starting June 23. Employees wishing to pick up a copy may do so at the Public Information Office (Wilson Hall, 1 West) or the Publications Office (Wilson Hall, 6NW). Additional pick-up sites are located at the Feynman Computing Center, the Industrial Center Building, the Housing Office, CDF and DØ.

See Batavia's fireworks

The Fermilab community is cordially invited to Batavia's Annual 4th of July celebration at the Batavia High School grounds on West Wilson Street.

At 6:30 p.m. "Savor the Flavor of Batavia" will begin with local restaurant booths and music. At approximately 8:45, watch the sky for fireworks accompanied by music.

Bring folding chairs or blankets, and a picnic, if desired.

From payroll...



A recent audit of the Payroll Department revealed that some signatures on time sheets and leave usage sheets are difficult to read. To eliminate this problem, the department requests that supervisors include their payroll number next to their name when approving time worked on a time sheet or leave taken on a leave usage sheet. This helps identify supervisors to all concerned and will eliminate numerous phone calls needed to make proper identifications.

July movie schedule announced

The Fermilab International Film Society presents movies from all over the world. Films begin at 8 p.m. in Ramsey Auditorium. All foreign films have English subtitles. Admission is \$2.

The July movie schedule is as follows:

Friday, July 17: *The Double Life of Veronique*: Two young women, both played by Irene Jacob, lead intertwined, yet unaware existences in a mysterious, poetic Polish-French co-production. Krzysztof Kieslowski, dir. 1991, 92 minutes.

Friday, July 31: *My Own Private Idaho*: Street hustlers portray unrequited love, abandonment, poverty and loss. Realized in vivid, moving images, radical transitions and a Shakespearean motif. Gus Van Sant, dir. United States, 1991, 102 minutes.

Spring/fall housing deadline



The deadline for receipt of requests for fall/spring on-site housing is July 10, 1992. Responses will be mailed by August 7, 1992. The starting date for fall/spring occupancy is September 1, 1992. For further information, please contact the Housing Office at x3777, e-mail FNAL::HOUSING or FAX 708-840-2823.—Pam Fox

Need more copies?



Has your group or office recently added summer employees? If so, *Ferminews* may be a scarce commodity every second Friday. To receive additional copies of this issue and/or future newsletters, contact the Publications Office, x3278, MS 107 or FNAL::TECHPUBS.

Congratulations to:

Caroline and Wade Miller (RD/ Safety) on the birth of their son, Frank Eric, at 11:18 p.m. on May 19, 1992. Frank, who was born at St. Joseph's Hospital in Joliet, weighed eight pounds, six ounces and measured 20 inches long. He is welcomed by a two-and-a-half year-old brother, Alan.



Security supervisors reach professional milestones

Two security supervisors have recently reached significant milestones in their professional development. **Gregory K. Falkman** (BS/ES/Security) and **Donald W. Foster** (BS/ES/Security) are now permitted to append the professional designation "CPP," or "Certified Protection Professional" to their names, having completed a rigorous process of qualification and examinations conducted by the American Society for Industrial Security.

In order to qualify as CPPs, both Greg and Don had to pass a strict screening of their applications, requiring both academic degrees and many years of practical experience. At least half of that experience must have been in "responsible charge" positions. Also required was evidence of excellent character, ability and reputation.

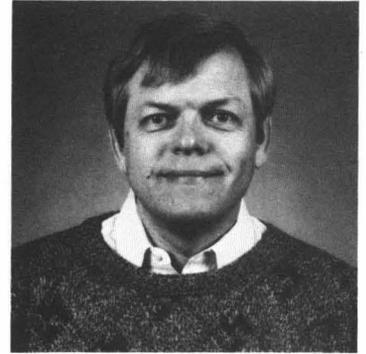
Greg and Don pledged in writing to adhere to the CPP Code of Professional Responsibility, and each was endorsed by a person already certified as a Protection Professional. Finally, each passed a full-day examination covering basic knowledge and skills in the general field of security and loss preven-

tion, plus four selected specialty areas. After about a year of preparation, Greg passed his examination in November 1991 and Don passed his in May 1992.

The Fermilab Security Department views these successes as part of the professional development necessary to improve the Department. Three of five supervisors/managers in Security now hold this professional certification, and the goal has been set for all five to be certified by the end of 1994.

The next time you see Greg Falkman or Don Foster, please pass on your congratulations to them. The Fermilab Security Department continues to improve, through the extra efforts of its members.

Certified Protection Professionals Greg Falkman (top) and Don Foster (below) of the Fermilab Security Department



Nalrec news

Nalrec still has a few openings for the July 18-19 **whitewater rafting trip** in Wolf River, Wisconsin. Cost is \$90 for one night's stay in a motel, bus ride, snacks in transit and a total of 10 1/2 hours rafting. Call Dominick, x3187.

Be sure and save June 26 for the annual **Hard Times Party**.

The Old Timers' Steak Fry on August 14th will be the event of the summer. Watch for more details, or call Mike Urso, x3370.

Gary Smith (x3878) is planning a **golf outing** at Palmer Hills in Iowa in July. Bus trip, lunch, 2 1/2 hours on a Rock Island casino riverboat and 18 holes of golf will cost approximately \$65.

Harper's Index

Miles of ties given for Father's Day in the United States each year: 12,600

Miles of these that are bow ties: 180

Government provides environmental hotline

The Office of Inspector General and the Office of the Assistant Secretary for Environment, Safety and Health are continuing with the interim Environmental Hotline which is operated by the Office of Inspector General. The telephone number for outside the Washington, D.C. metropolitan area is 1-800-541-1625. In the Washington D.C. metropolitan area, call 586-4073. The Hotline is operated twenty-four hours a day.

This hotline provides an opportunity to report environmental, safety or health concerns you might have regarding Department of Energy operations. Normally, your concerns should be reported through regular channels of communication. However, if for any reason you believe your concerns will not or cannot be addressed properly within your organization, you may report the matter through the Hotline.

Hotline operators at the Office of Inspector General will immediately refer your concerns to the Office of the Assistant Secretary for Environment, Safety and Health. That office will review such concerns to determine their appropriate disposition.

Heads of Contracting Activities should make this information available to all employees of the management and operating contractors under their cognizance.

Blood drive coming

The Heartland Blood Center blood drive will be held on Monday, July 13 from 9 a.m. to 2 p.m. at the Users Center.

Fermilab hosts 12th annual FIA meeting



Chuck Ankenbrandt



Frank Cole



Arlene Lennox

Experts from the worlds of high energy physics, medicine and industry explored opportunities for collaboration and cooperation at the Twelfth Annual Fermilab Industrial Affiliates Meeting and Industry Briefing. Medical technology was the theme of the meeting, held May 28 and 29 at the Laboratory. Ninety-one representatives from industry, government and the medical profession attended lectures, toured the Laboratory and participated in panel discussions.

The presence of the Tiger Team prompted a move from 1 West, where the meeting has often been held in past years, to Ramsey Auditorium. On the afternoon of Thursday, May 28, Director **John Peoples** opened the session with an explanation of the cause for the new venue. "Some of you know we have buffaloes, some of you know we have geese running around here, and now you may be asking 'what are we doing with tigers?' he said. He answered that question with an introduction to the Tiger Team and its mission. Comparing the Team's visit to a trip to the dentist, he said "the process is not totally pleasant, but it promises good returns."

The Director then turned to medical technology, a theme proposed by **Dick Carrigan** (Directorate). "Dick suggested medical technology, because this is an area where we (physicists) contributed early on, with tools like synchrotrons and x-ray machines." Now, though, physicists and physicians are beginning to see a common need for progress in computing, visualization methods and other research methodologies. "These things promise not only to transform the field of medical technology, but maybe even help us in particle physics," John said.

A description of the mission of Fermilab closed John's introduction. "We're pushing elementary particle physics," he explained. He discussed the search for the top quark, but added, "I suspect that won't be the end of elementary particle physics. At any rate, we're very excited about the prospects of making some very important discoveries."

"Our aim is to get broader utilization of the technologies that are developed here at the Laboratory in the course of doing the physics that is the main mission." —John Venard

Tom Nash (CD/Division Ofc.) chaired the first session, an overview of the opportunities for technology transfer involving the pharmaceutical industry. Calling technology transfer a "two-way street," Tom emphasized the benefits that accrue to both government laboratories and industry when information on technology, and specifically high-performance computing, is shared.

The first speaker, Gene Fluder, is a Senior Research Fellow at Merck Research Laboratories. He is responsible for planning and executing high-performance computing strategy at his company.

In his lecture on "Computational Drug Design," Fluder described the importance of discovering new drugs, and suggested that government laboratories might be helpful in finding new visualization methods and new ways of comparing structures.

Noel Jones, Senior Research Scientist and Group Leader of Macromolecular Structure Research at Lilly Research Laboratories of Eli Lilly & Company, followed with a talk titled "Applications of Synchrotron Radiation to Structure-Based Drug Design." Jones is the head of a nine-institution group preparing to do molecular analysis for structure-based drug design at the Argonne advanced photon source now under construction. He detailed plans for research at the new accelerator as well as his work in protein crystallography.

The second afternoon session spotlighted "Medical Imaging—Breakthroughs and Challenges." Dick Carrigan began the session by suggesting areas where technology transfer with the medical profession might have applications. The list included accelerators, high-powered computing including parallel processing devices, cryogenics and superconductivity. He then introduced Paul Lauterbur, the "founding father" of magnetic resonance imaging.

Lauterbur, who holds several academic and administrative positions at the University of Illinois, pointed out the long relationship between physicists and doctors in imaging technology. He pointed out the successes of magnetic resonance imaging, but stressed the need for future involvement by the particle physics community in order to further perfect this imaging modality.

Michel Ter Pogossian of Washington University and the Mallinckrodt Institute of Radiology then presented "The Genesis, Present Status and Future of Positron Emission Tomography." Positron emission tomography uses "particles of antimatter to allow PET imaging experts to watch a brain and see a person think." Like Lauterbur, Ter Pogossian credited physicists for their transfer of technology to date and encouraged them to continue working with the medical community toward better imaging methods.

After these sessions, **David Anderson** (RD/Particle Det.), Larry Antonuk of the University of Michigan and David Levin of the University of Chicago led a panel discussion on "Initiatives for the Future." Antonuk is currently developing amorphous-silicon imaging arrays for radiotherapy and diagnostic applications, and Dr. Levin, a radiologist and physicist, is researching software designed to create three-dimensional images of brain structure and function.

The Thursday activities concluded with a social hour, banquet and after-dinner comments by Lee Rogers, chairman of radiology at Northwestern University Medical School. Dr. Rogers, president of the American College of Radiology, addressed the theme of laboratory-industry cooperation in medical technology, calling for a new paradigm of cooperative and collaborative research.

Friday morning commenced with an update on cooperative programs at the Lab. "One of the missions of this laboratory is to do technology transfer, and this is a mission across all of DOE for every installation," said **John Venard** (Directorate). "Our aim is to get broader utilization of the technologies that are developed here at the Laboratory in the course of doing the physics that is the main mission." John then listed several formal mechanisms for cooperative work.

Ken Thomas, president of the Brobeck Division of Maxwell Laboratories, detailed an example of such cooperation in "Accelerator Controls—a New Technology Transfer." His company has commissioned the first commercial electron synchrotron in the United States, and has recently completed a licensing agreement for a control system developed at Fermilab.

After a break, Frank Cole chaired a session on "Accelerators for Medicine." Frank, a former Fermilab employee who is now a member of Particle Accelerator Corporation (a private company), gave a brief history of radiation treatment for cancer, which began shortly after the invention of x-rays in the late 19th century. He also described the design and construction of the Loma Linda Medical Accelerator which was developed at Fermilab.

Charles Ankenbrandt (Accel. Headquarters) spoke next on "Design Concepts for a Proton Therapy Facility." Chuck and his colleagues are beginning to consider plans for an innovative accelerator to be used for proton therapy. He credited Robert R. Wilson, Fermilab's first director, for his role as the original proponent of protons being used for cancer therapy.

The indications and demand for treatment at proton medical facilities headlined Michael Goitein's presentation. Goitein is currently involved in the development of the North East Proton Medical Facility at Massachusetts General Hospital (Harvard University). He pondered the possibilities for laboratory-industry collaboration in the development of interactive computer graphics and biophysical models for cancer treatment.

Arlene Lennox (Neutron Therapy Facility), concluded the meeting with a presentation entitled "Medical Applications of Proton Linacs." She explained to non-physicists the difference between cyclotrons, synchrotrons and linear accelerators, then diagrammed and described Fermilab's own Neutron Therapy Facility. She summarized the options the medical and physics communities have in using proton linear accelerators for therapeutic and diagnostic purposes.

This year's Fermilab Industrial Affiliates Meeting was orchestrated by Dick Carrigan, John Venard and **Pat Oleck** (Directorate). The meeting requires a great deal of planning. "We start around February," said Pat. "We get a lot of cooperation from everyone around the Lab—the Cafeteria, Visual Media Services, Facilities Engineering Services and Public Information."

Fermilab established the Industrial Affiliates in 1980 to improve university-industrial communications and foster technology transfer from the Laboratory. "We're even suspicious that some of these partners might have better ideas than we have," Dick Carrigan said. The annual meeting provides an opportunity for senior personnel from the affiliates, which now number about thirty, and other companies to learn about ways to communicate those ideas.



Dave Anderson



John Venard



Pat Oleck

Topics in Modern Physics Institute debuts

A crowded curriculum and a short school year sometimes make high school science teachers reluctant to introduce particle physics to the next generation of potential scientists. The Topics in Modern Physics National Institute at Fermilab, an Education Office program, is helping to encourage outstanding science instructors to "sprinkle" particle physics into their lesson plans all year long.

Topics in Modern Physics (TMP) began in 1986 with a Fermilab conference which addressed the problems and advantages of incorporating high-energy physics into the secondary school curriculum. During 1987, inspired by the positive response to the conference, Friends of Fermilab and Fermilab developed a teacher resource book with materials designed to help ease particle physics into high school classes. Reviewers scrutinized the book and made revisions.

In 1988, Fermilab hosted the Topics in Modern Physics Workshop for area educators and completed field tests of the draft resource book. The TMP Teacher Resource Book was printed and made available to teachers nationwide. This three-year project was funded by the National Science Foundation.

Summer 1992 marks the first Topics in Modern Physics National Institute. Funded by the Department of Energy Office of Energy Research, the program will bring 45 teachers from 29 states to the Laboratory from July 6 through July 24.

To apply, the teachers must have had at least three years of teaching experience, and must be scheduled to teach physics this fall. The participants were selected from a pool of 225 applicants from 42 states. According to **Kris Ciesemier** (LS/Education Office), it was difficult to select only 45 participants from this large pool of excellent physics teachers. "Our hope is that these 45 teachers will share their experience with colleagues in their respective states," she said.

Walter Schearer, a physics teacher at Glenbard North High School in Carol Stream, coordinates the Institute program with the help of five master teachers, William Conway, Ward Haselhorst, JoAnn Johnson, Patrick LaMaster and James Ruebush. All are members of the TMP Development Group. **Drasko Jovanovic** (Physics Section) and **Jeff Appel** (Physics Section) are advisors to the program.

While at Fermilab, the teachers will attend lectures by Fermilab physicists on accelerators, detectors, elementary particles, the standard model

and cosmology. In addition to touring the Lab facilities, the teachers will visit the Adler Planetarium in Chicago.

Another important component of the three-week program is instructing participants in the use of the TMP Resource Book. Master teachers will help the participants explore the Book's articles, labs, puzzles, worksheets, videocassettes and quizzes. Participants will be able to incorporate materials from the Resource Book into their lesson plans.

The educators who attend the Topics in Modern Physics National Institute will return to their home schools with a stipend, graduate credit from Aurora University, and most importantly, newfound knowledge to share with their students and colleagues.

Lab celebrates 25th anniversary

Hundreds of Fermilab employees marked the 25th anniversary of the start-up of Lab operations at a celebration June 15 at 3:30 p.m. Staffers, users and Fermilab friends gathered in the Wilson Hall cafeteria for coffee, soft drinks and anniversary cake.

The cafeteria, adorned with balloons, was also the setting for a short ceremony during which Director **John Peoples** honored some of the employees who have been with the Laboratory for the entire 25 years of operation. The list of 25-year honorees includes: **Angela Gonzalez** (Directorate), **Carolyn Hines** (BS/FM/Comm/Mail), **Quentin Kerns** (Accel. HQ Staff), **Babrbara Kristen** (Research Division Ofc.), **Glenn Lee** (AD/Mech. Supp.), **Jean Lemke** (Directorate), **Chuck Marofske** (LS/Section Office), **Lincoln Read** (Directorate), **Reid Rihel** (TS/Superconducting Magnets) and **Jan Wildenrad** (AD/Mech. Support).

Quality corner

The Quality Assurance and Conduct of Operations Office would like to receive suggestions from employees or users on how to improve the quality, efficiency, reliability or effectiveness of Laboratory services or operations. Please send your suggestions to Mark Bodnarczuk, MS 200 or FNAL:: BODNARCZUK.

Lab experience brings success, friendship for summer employee

Gina Carranza (BS/Info. Systems.) can list a string of accolades after her name. She's the recipient of the this year's Spartan Award, the highest honor given to a graduating senior at Aurora University. She's a member of Alpha Chi Epsilon and Phi Eta Sigma National Honor Societies, and her B.S. in computer science came summa cum laude. But two of the most important labels to Gina are Fermilab employee and friend.

This year marks Gina's seventh and probably final summer as a Laboratory summer employee. "I really hate to lose her," said **Mary Jane Nichols** (BS/Info. Systems), who for the past six years has looked forward to Gina assisting her in the Information Center during school breaks. "How am I going to get another Gina?" Over the past few years, Gina and Mary Jane have cultivated what Mary Jane hopes will be a "lifelong friendship."

Gina's introduction to Fermilab came through *Target: Science and Engineering*, a six-week apprentice research program for talented minority high school students. Always interested in computers, she was pleased to be assigned to Fermilab's Computing Division in 1986. Gina spent that summer operating and monitoring computers and learning to answer users' questions. "It was nothing too complicated," she said, "The people were really nice and the job was interesting."

The following summer, Fermilab assigned Gina to the Information Center, a PC hardware and software support group. Mary Jane had just begun a few months earlier, so as she says, "we've kind of grown up together" in their respective positions. Gina's introduction to her new job included a manual inventory of every piece of hardware and software in the department, and the inputting of the thousands of items catalogued in a database system. "We went through everything in blue jeans and T-shirts," said Mary Jane.

"It wasn't too bad," Gina said. "It helps a lot if you have people like Mary Jane working with you."

Currently, Gina's responsibilities include setting up users, troubleshooting, and other technical support functions. She tries new products and writes user notes reporting on the products' quality. According to Mary Jane, Gina herself gets high reviews as well. "People are very complimentary," Mary Jane said.

Gina counts the immediate feedback she receives as a favorite point of the job. "You get thank-

you," she said. "It's very rewarding." She adds that Fermilab co-workers are more often friends than mere colleagues.

The 1992 graduate, in addition to winning Aurora University's highest award for senior academic, extracurricular and community achievement, garnered Golden Ivy Leaf and Ivy Leaf awards for academic talent and received a Scholastic Achievement Award. She was president of one honor society and secretary of another, and was named in *Who's Who Among Students in American Universities and Colleges*. The Latin American Students' Organization also honored Gina for Excellence in Scholarship in 1992.

In addition to accumulating a grade point average worthy of summa cum laude, Gina found time to serve as the secretary of the computer science club and to sing soprano in the University Choir.

Gina, who has a minor in accounting, is now seeking a position as a programmer or systems analyst. "Gina is a very good programmer," Mary Jane said. Gina especially enjoys working with Macintosh computers. She likes the troubleshooting/technical support aspect of her current job and hopes her future career includes that. She is contemplating earning a master's degree or a doctorate in computer science, but plans to explore the engineering field before making a decision.

Meanwhile, Mary Jane does not look forward to Gina's departure. "We've been able to take a work relationship and add friendship," Mary Jane said.

Recently, Mary Jane became Gina's *madrina*, or confirmation sponsor. "So she's really a part of the family, too," Gina said.

Out of Mary Jane's earshot, Gina emphasized the importance of her working and personal relationship with Mary Jane. Speaking of her successes, Gina said, "I couldn't have done it without her."



Gina Carranza can list a string of accolades after her name. She's the recipient of the this year's Spartan Award, the highest honor given to a graduating senior at Aurora University. She's a member of Alpha Chi Epsilon and Phi Eta Sigma National Honor Societies, and her B.S. in computer science came summa cum laude. But two of the most important labels to Gina are Fermilab employee and friend.

Above: Six summers of working side by side have solidified the friendship between the Information Center's Mary Jane Nichols (l) and outstanding graduate Gina Carranza.

Classified ads

Vehicles

Motorcycle: 1976 Yamaha DT-400 Enduro. Street legal, comes with shop manual and extra parts. \$300 negotiable. Contact Dave, 708-790-9257 (before 8 p.m.) or FNAL::IFVERSEN.

1988 R100RS BMW motorcycle, 1000cc. Pearl white, 12k miles, hard saddle bags, leather tank cover, stainless steel head protectors, stainless steel pipe protectors. Asking \$4,600. Call Cheri, x3771.

1982 Honda Prelude, 170k miles, excellent condition, A/C, electric sunroof, 5-speed manual transmission, new exhaust. \$500. Call John, x8357 days, 708-717-7432 evenings.

1982 Toyota Tercel. Red, 4-dr, good cond., 65k, am/fm, good body, \$1650. Call Que, x8339, x4706.

1987 Vette, loaded, Greenwood Aero package, limited edition (1 of 150), adult driven, highway miles, white/silver with black glass top, sharp. \$16,500 obo. Call Jim, x8010 or 815-744-2831 after 5 p.m.

1975 GMC van, V8-350 engine, runs great, lots of rust. \$900. Lynn, x2061.

Miscellaneous

Chrome custom sq. tube grille, fits '84 to '87 F-150 or Bronco, Ford. Best offer. Call Jack Smith, ext. 3011 or page 306.

Wilson Hall construction progresses

Construction is continuing on the Wilson Hall ground floor remodeling project that will add approximately 6,000 square feet of new office and conference space to the central laboratory facility. The project includes the construction of a new mezzanine floor between the ground floor and the first floor at the north end of Wilson Hall.

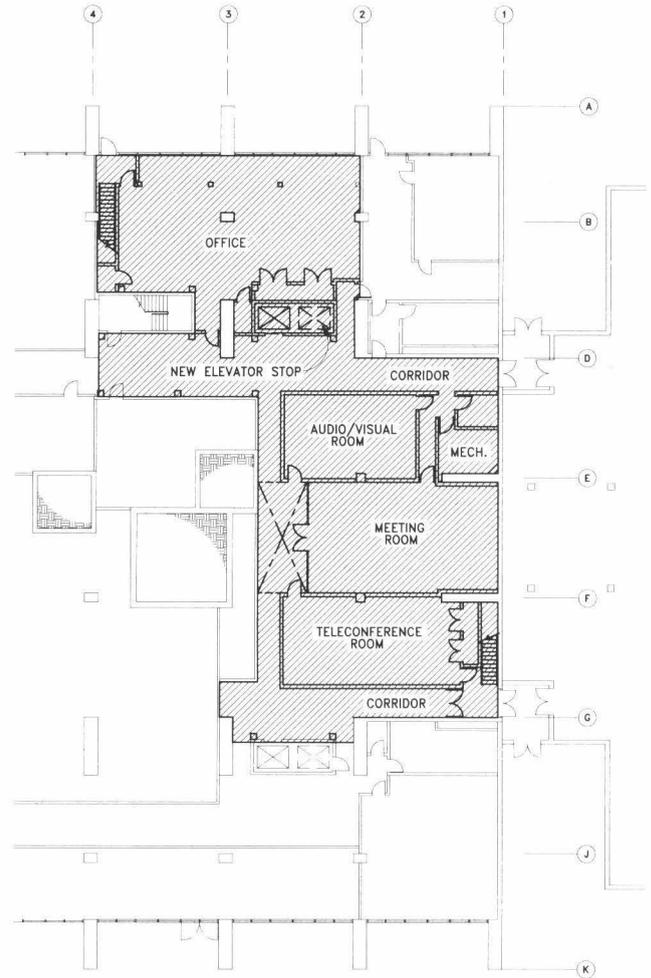
The project, begun by Oliver Structures April 6, is continuing on schedule, and according to **Vic Kuchler**, assistant head of FESS, the area is expected to be ready for beneficial occupancy in early November.

According to Vic, all of the saw cutting for the pipe work below the existing ground floor slab has been completed and the new foundations for the ground floor concrete block walls have been installed. In addition, revisions to the west-side elevator shaft have been completed. Work has now started on the elevator controls and rail extensions for elevator car #2. When the overall project is completed, car #2 will take passengers to all floors including the ground floor and the new mezzanine. All of the concrete block walls that support the new mezzanine floor have also been erected.

The first part of the new mezzanine floor slab over the future audio/visual, teleconference and meeting rooms was poured on June 4. Pouring of the floor slabs will continue in a phased manner, said Vic. The floor slab over the west office area will be poured next, followed by the floor slabs over the corridors connecting the rooms. (See drawing above)

Once the pouring of the slab over the hallways on the west side and the modifications to elevator #2 are completed, the current handicapped entrance and mail chute access will be moved to the west side until the mezzanine floor slab is finished. When the west side entry is established, both west elevators will service the ground floor. Access to the ground floor from the east tower elevator #4 will then be temporarily closed. However, east side elevator service from the first floor to the 15th floor will remain in service. Once construction is completed, the main handicapped entrance will return to the east side.

Vic said that based on current progress, the ground floor access will switch from the east to the west in late July. In late June, elevator service on elevator #2 will be restored from the Atrium to the 15th floor.



PLAN AT GROUND FLOOR

SCALE: 1/16"=1'-0"

Classifieds continued

0.45 carat Marquis cut diamond ring with accompanying gold ring. Appraised at \$1,600. Will sell for \$850 or reasonable offer. Call Mike, x4518.

Drum machine, Boss DR550. The "Doctor Rhythm." \$199 firm. Call Dave at 708-377-1799 or x3905, e-mail dswoboda@fncrda.fnal.gov.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1992-643-065/60001