

Ferminews

FERMI NATIONAL ACCELERATOR LABORATORY

DOE authorizes \$2.5 million for the Main Injector

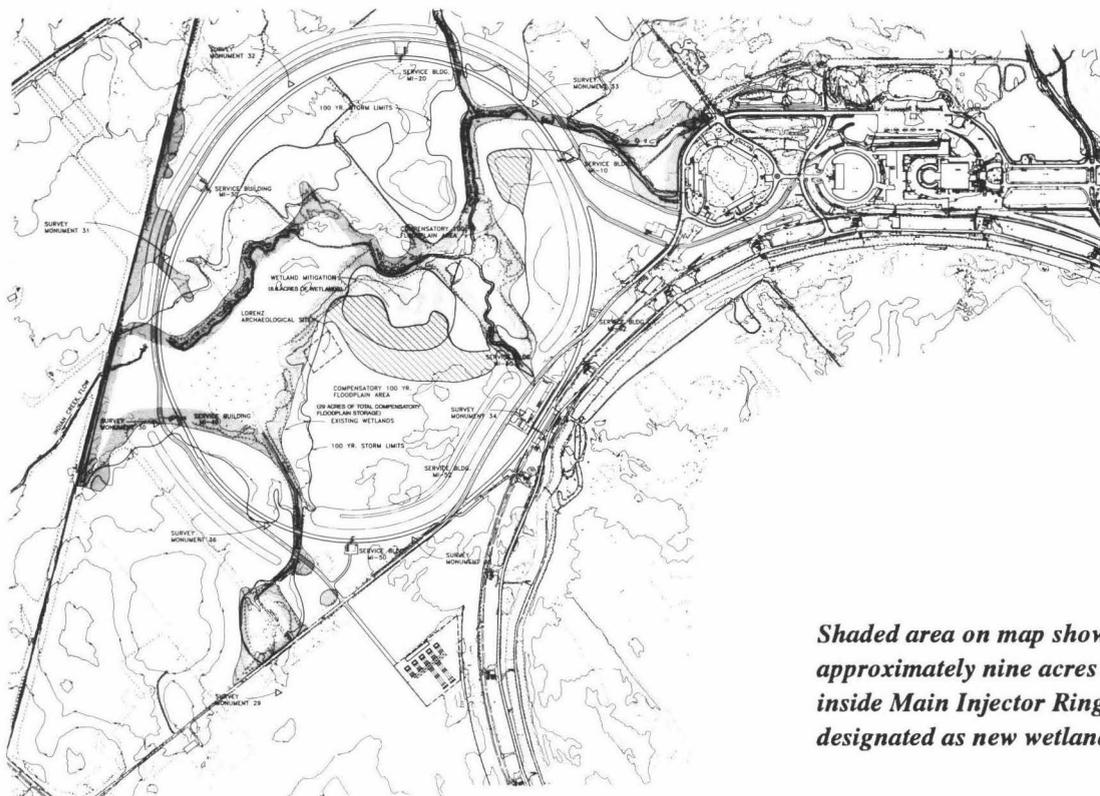
The Department of Energy has authorized the expenditure of \$2.5 million for the Main Injector project. According to Dixon Bogert, Associate Accelerator Division Head for the Main Injector Project and Deputy Project Head, the funds have been allocated for two very specific tasks: \$1 million dollars was authorized to fund the civil work related to wetlands mitigation and \$1.5 million was authorized to develop a Title I package.

Wetlands mitigation

Federal law does not allow developers to cause net loss of established wetlands. The law provides that any wetlands destroyed by a developer must be replaced at a ratio of 1.5 to 1. The construction of the Main Injector will alter approximately 6 acres of wetlands, so the Laboratory was required by the federal government to prepare a wetlands mitigation

plan that provides for the creation of approximately 9 acres of new wetlands.

Using funds provided by the Illinois Technology Challenge Grant, Laboratory employees and consultants from Envirodyne Engineering, Inc. prepared a wetlands mitigation plan which was submitted to the Army Corps of Engineers—the federal organization responsible for administering the law regarding the destruction and replacement of established wetlands. Last summer, the Army Corps of Engineers issued Fermilab a permit which means they had accepted and approved our mitigation plan. “Now we must convert this plan into actual mud moving,” said Dixon Bogert. The recent release of funds will allow the Laboratory to bid the mitigation work, and, contingent upon DOE’s approval of our entire Environmental Assessment (EA), award the contract. *Continued on page 2*



Shaded area on map shows approximately nine acres inside Main Injector Ring designated as new wetlands.

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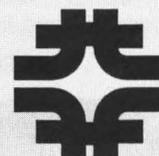
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FNAL::TECHPUBS

The deadline for the Friday, April 17 issue of *Ferminews* is Wednesday, April 8. Please send your article submissions or ideas to the Publications Office.

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Main Injector con't.

In the EA approval process, the DOE Office of Energy Research must review the Laboratory's Environmental Assessment, and, if approved, issue a draft finding of no significant impact (FONSI). After a brief period for public comment, the FONSI becomes final and the Assessment is officially approved. "That is the final step before starting the actual mitigation work," said Bogert. "It is our current hope that we will be able to award the contract early this summer."

Title I package development

The second task for which funds were recently authorized is the development of a Title I package. A Title I package is an extension of the conceptual design that concentrates on more difficult and challenging technical and civil problems. It is the next step prior to the final architectural and engineering plan. The \$1.5 million authorized for this project will allow Fermilab and Fluor Daniel, an architecture and engineering firm, to complete the Title I package and submit it to the Department of Energy. From this plan, DOE is able to complete technical and cost appraisal, which is one of the final steps toward full approval and funding.

ORTA honors inventors

A reception honoring the achievements of 26 Fermilab inventors was held Wednesday, March 18 on the 2nd Floor Crossover.

During a brief, informal ceremony, certificates and cash awards were given to the innovators who had filed records of invention (ROIs) with the Office of Research and Technology Application (ORTA) during the period of August 1, 1990 and July 31, 1991.

Dennis Theriot, Associate Director for Technology, welcomed those in attendance and made the opening statements on behalf of the Directorate. He hailed the achievements of those being honored and credited them for the important role their pioneering spirits play in the field of high energy physics.

Dick Carrigan, manager of ORTA, who has worked closely with all the inventors, hosted the event and congratulated the fine work of the honorees.

Honored at the reception were:

Edward Barsotti (CD), **Mark Bowden** (formerly CD, now SSCL), **Gustavo Cancelo** (formerly Phys. Section, now a professor at National University of La Plata, Argentina), **Sten Hansen** (Phys. Sec.), and **Richard Kwarciany** (CD) for their contributions to the development of the *fastbus smart crate controller*. **Alan Bross** (RD) was credited as the inventor of the *radiation-hard 3-HF polystyrene scintillating fiber*. **Brian Hendricks**' (AD) and **K. Casey Sieno**'s (AD) innovative talents produced the *Main Ring vacuum readback interface*. **Muzaffer Atac** (RD) and **William Foster** (RD) invented a *simple method for fusing plastic fibers*. **Alan Jones** (formerly AD, now SSCL) and **Michael Shea** (AD) pooled their expertise to develop the *fairly quick VMEBUS digitizer*. **Moyses Kuchnir** (TS) invented a *method for labeling calibrated sensing resistors*. **Edward Barsotti** (CD), **David Christian** (RD), **Carl Swoboda** (CD) and **Ray Yarema** (RD) invented a *fastbus-based ECL silicon strip detector (SSD) readout system*. **Gustavo Cancelo** (formerly of the Pys. Sec., now with the National University of La Plata, Argentina), **Bruce Denby** (CD) and **Sten Hansen** (Phys. Sec.) were the



Finley Markley (l) and Muzaffer Atac (r) have collectively filed 21 records of invention during their Lab careers.



Andrew Oleck, Pat Oleck and Gerald Davis share thoughts at the ORTA reception.

architects of a *neural network trigger programming board and associated software*. **Gerald Davis** (TS), **Ralph Niemann** (formerly TS, now at ANL) and **Andrew Oleck** (TS) designed a *low beta quadrupole (LBQ) cold mass connection slide*. **Arie Lipski** (TS) and **Finley Markley** (TS) invented a *cryogenics materials tester*. **Charles Nila** (RD) and **Richard Schmitt** (RD) combined their talents to devise a *helium expansion engine valve clearance adjuster*. **David Anderson** (RD) and **Brian Kross** (formerly RD, now at CEBAF) jointly developed a *cerium fluoride scintillator material*.

After the opening exercise, the inventors enjoyed an informal reception. Special recognition goes to **Pat Oleck** (Directorate) who organized and coordinated the details of the awards ceremony and reception.

Timeline: a date to remember

Parknet—history in the making

For reasons that should be immediately apparent, history is usually regarded in the past tense. Except, of course, in cases where it is still being made. At Fermilab, an ambitious present-tense project called the Parknet Environmental Research Program is demonstrating some of the ways non-physicists can affect the course of history by closely monitoring how we work in and use our environment today. Parknet's milestone, unlike others in this series of retrospectives, isn't an anniversary; rather it is a point of departure.

Beginning at the Savannah River Laboratory in 1972, the first National Environmental Research Park designated by the Department of Energy served as an example of how a national laboratory and an outdoor laboratory could coexist. Four other laboratories across the country adopted this example with Fermilab becoming the sixth member in April of 1989 followed by the Nevada Test site in 1991. Today, the seven different ecoregions contained in these parks provide diverse natural laboratories where scientists can study the interrelationships between the environment and human activity.

Situated in a heavily industrialized and urbanized region of the country, the Fermilab habitat offers a unique opportunity in which researchers can study the effects of these two factors on the environment, according to Rod Walton, head of the Parknet Environmental Research Program at Fermilab. "Fermilab is the only park located in the midst of a rapidly developing area," Rod explained. Similarly overburdened, industrial areas like the East and Northeastern United States may one day benefit from research, restoration and monitoring programs developed here at Fermilab.

Fermilab's tallgrass prairie, its marshes, wetlands and forests give it widespread appeal to researchers. This same appeal is what attracted settlers to the area in the early 1800s. One surveyor who mapped the area in 1844 wrote that the area was, "All rich, first-rate prairie. Land, rich and fit for cultivation." What is today the western edge of the Main Ring was then largely forest.

Enhanced by prairie plants decaying over eons, the

fertile Illinois soil attracted farmers to the area en masse during the land rush following the Civil War. They built houses with the timber and cleared the land for agriculture, making quick work of the forests and prairie. Within a century, an entire ecosystem had vanished.

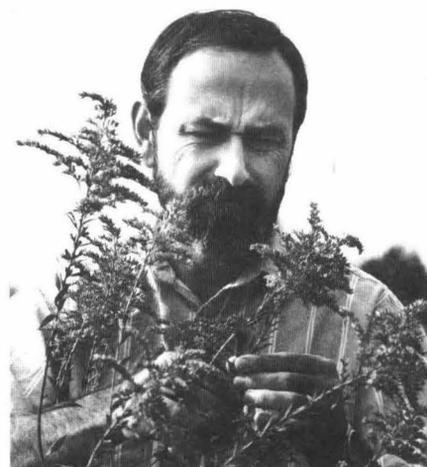
When the Atomic Energy Commission chose Weston as the site for Fermilab in 1967, the agricultural disturbances brought on by settlement finally subsided, and a new era of rebirth began. Almost before construction began, the Laboratory drafted its first Natural Resource Utilization plan which banned natural resource depletion and imposed pollution standards more stringent than any existing laws or regulations.

The Fermilab prairie restoration project took the next step on the road to saving our natural resources in 1974 when it began to reconstruct the prairie habitat indigenous to the Fermilab site. Almost 18 years later, nearly 800 acres of prairie thrive on plots across the site; the biggest single concentration is within the Main Ring - paradoxically, in the middle of one of the world's largest scientific research tools.

But regenerating a nearly lost-habitat is only one component of protecting our environment, Rod clarified. Recognizing factors that influence the environment and developing ways to manage them is the other, and this is a large part of Parknet's mission.

To address environmental issues, Fermilab invites ecologists to perform experiments on its multiple landscapes. Wetlands, old farm fields, forests and prairie plots are all within a stone's throw of each other onsite, providing researchers from outside institutions ample and varied opportunities to study habitat reclamation, soil development and ecosystem dynamics. The prairie restoration project, which turned farm fields back into a sea of prairie grasses and forbs, is successfully demonstrating that ecologists can "study the way to take a sick, disturbed ecosystem and bring it back to an approximation of its original state," Rod says.

Linked by computer, the Parknet institutions can



Rod Walton examines a goldenrod plant as part of his research on the evolution of plant defenses against insects.

combine or exchange data to study environmental conditions at other laboratories and facilities. In this way, a scientist who collects a localized piece of data at one laboratory or facility actually contributes to an overall database of knowledge vital to preserving the delicate balance between nature and humanity.

Currently, five new research projects have been proposed for approval to the Parknet office. Starting in 1992, Fermilab will begin a 20-year project to plant nearly 300 acres of prairie and grassland designed as an experimental manipulation area. Parknet's goal for the immediate future recalls the earlier and present goal of Fermilab: that is, according to Rod, "To encourage people to come here to do research." If Fermilab's world-class performance in high energy physics to-date is any indication, history has the potential to repeat itself with Parknet.—*Brian Charles Dick*

Caution please! Information regarding records retention



With the present and ongoing emphasis on maintaining a safe working environment, many employees are cleaning up their work areas. Joyce Anderson, Records Administrator, cautions employees that when cleaning up their work areas, please be very careful that no "records" which are required to be retained under the Laboratory's established Records Management Program are inadvertently thrown away, or destroyed for the sake of house-keeping. According to Joyce, "If records must be moved, they should be sent to the records storage area under the proper procedures." If you have any questions regarding records retention or storage, please call Joyce at x3572.

Wilson Hall scheduled for power shutdown

On Sunday, April 5, all electrical service to Wilson Hall will be out between 6 a.m. and 6 p.m. for completion of the annual switchgear preventative maintenance. Please make arrangements to turn off as many computers, printers and other equipment as possible.



The building will be closed during the shutdown. There will be no lights—the emergency lights work approximately one hour and are designed for emergency exit lighting only. The stairwells will be unlit, and there will be no elevator service. There will be no air conditioning or ventilation. The cafeteria will be closed.

If you have any questions related to this matter, please contact Kent Collins x4753.

Medical offers blood pressure monitoring



The Medical Department will offer a blood pressure monitoring on Tuesday, April 21 from 11:30 a.m. until 1:00 p.m. in the Wilson Hall Cafeteria in front of the public speech bulletin board. All employees are welcome to participate. For further information, you may contact Mae Strobel, Medical Department, x3232.

Fermilab International Film Society

April's screenings will be shown in Ramsey Auditorium at 8 p.m. Admission is \$2.



Friday, April 3: *The Nasty Girl*: German student debunks the myth that her Bavarian hometown was a

bastion of underground resistance to the nazis in this surrealist satire. Michael Verhoven, director. Germany, 1990, 92 minutes.

Friday, April 24: *Barton Fink*: Filmmakers Joel and Ethan Coen won the 1991 Cannes prize for the story of a seemingly innocent playwright in a sinister, claustrophobic Hollywood of the 1940s. U.S. 1991, 116 minutes.

Reminder



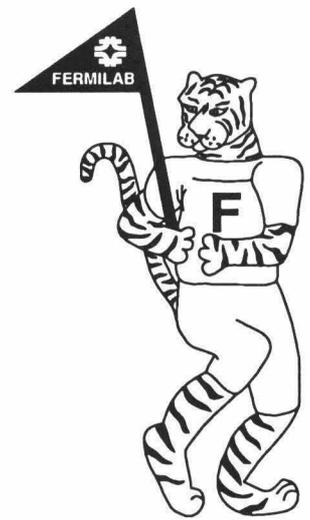
Stockrooms to close for inventory

Wilson Hall Stockroom: Closed Friday, April 17, at noon. Open Monday, April 20, at 12:30 p.m.

Site 38 Stockroom: Closed Monday, April 20 and Tuesday, April 21, all day both days.

tiger team REPORT

April 3, 1992 Vol. 1, No. 3



Pre-assessment visit scheduled

The leaders of the Department of Energy (DOE) Tiger Team will conduct a Tiger Team coordination meeting and pre-assessment briefing at Fermilab on April 7-9. It is standard for such meetings to be held about 6 weeks prior to the Tiger Team Assessment.

The purpose of the Tiger Team pre-assessment site visit is to acquaint the principal participants with the DOE area/operations office and Laboratory personnel; to become familiar with the facility by means of a site tour and briefing; to review site documents requested by the Tiger Team members; and to discuss logistics for the upcoming assessment.

Members of the Tiger Team participating in the pre-assessment include: Harry Season, Tiger Team leader; Deputy leader Tim Pflaum; and subteam leaders, Bal Mahajan (Safety and Health) and Randy Lynch (Management and Organization). Andrea Heintzelman, Environment subteam leader, will not attend the pre-assessment briefing. She made an earlier visit to the Laboratory. Karen Boardman, executive assistant for the Tiger Team and Mary

Meadows, Tiger Team administrator, will also attend the briefings.

During the pre-assessment briefing, the Tigers will meet with the Laboratory director and personnel who have been appointed to facilitate interactions between the Laboratory and the Tigers. Appointed by the Director to these positions are: Bruce Chrisman, Management Subteam Support and Coordination; Rod Walton, Environment Subteam Support and Coordination; Ray Lewis, Safety and Health Subteam Support and Coordination; Rich Orr, Senior Management Facilitator; Lincoln Read, Self-Assessment Support and Coordination; and Cynthia Sazama, Administrative Support and Coordination.

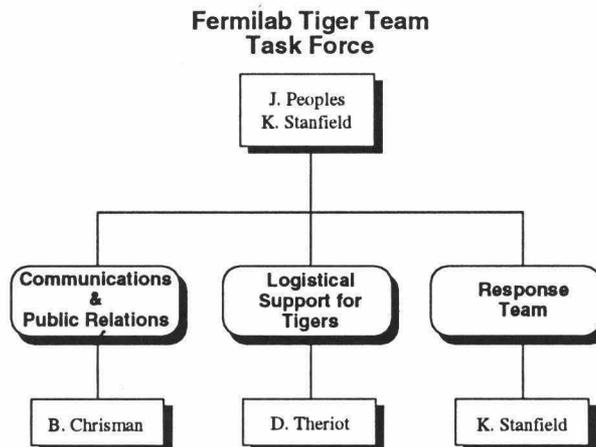
Following the pre-assessment site visit and review of information, the Tiger Team leader and deputy leader, subteam leaders and team members will prepare an assessment plan which will outline the key issues, general approach and specific on-site activities.

Task Force fine tunes organization

Over the last few weeks, the Fermilab Tiger Team Task Force, under the leadership of Director John Peoples, has refined its organization and the functions of its members. During this time, the Task Force has been streamlined to include three teams with subteams designated to carry out specific duties. The chart to the right shows the organization of the Task Force and the teams leaders.

The Response Team

The largest of the three teams, the Response Team, under the leadership of Deputy Director Ken Stanfield, is comprised of six subteams. The Response Team has a wide range of responsibilities which include: operating a Response Team Office (which will be located on the westside of the



Wilson Hall 2nd floor); providing escorts who will accompany the Tigers on all site visits;
Continued on page 6

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team schedule

- April 7-9: Tiger Team Pre-Assessment visit
- May 11: Tiger Team Assessment begins
- June 8: Tiger Team Assessment Final Closeout

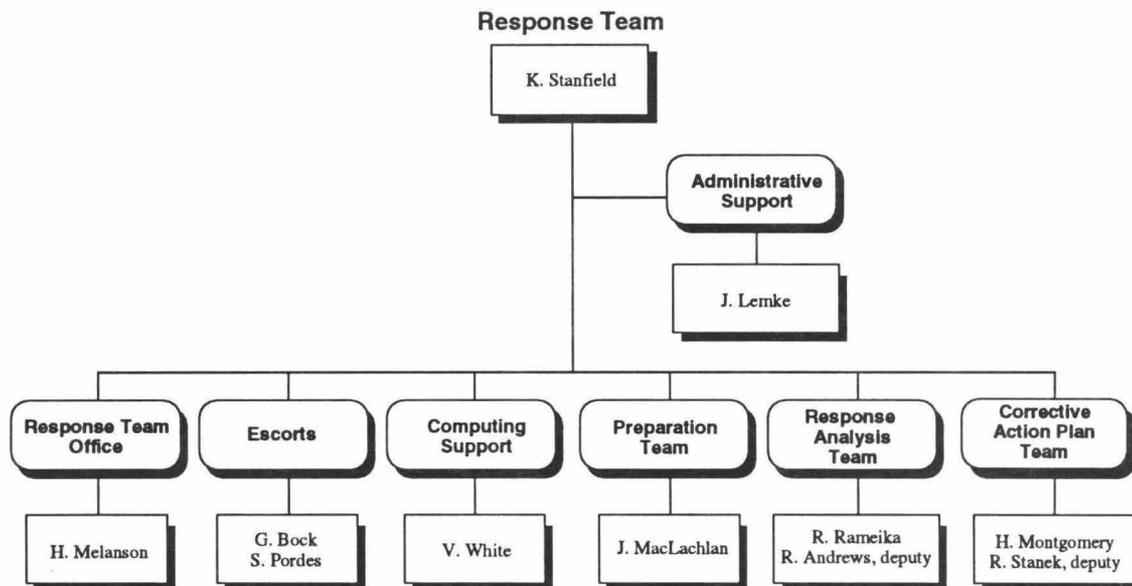
Task Force con't.

providing administrative support to the Fermilab Tiger Team Task Force; gathering and organizing documents needed by the Tigers; providing building contacts; analyzing findings and determining the appropriate response to the findings; and preparing the Laboratory's action plan after the initial assessment is completed. The organization of the Response Team and its members is shown on the chart to the right.

The Escort Service and the Response Team Office—important links in the communication process

The Response Team Office will be the Laboratory's hub for communication during the Department of Energy's Tiger Team Assessment. Headed by Harry Melanson, the Response Team Office is the Lab's operations center. Those staffing the office will provide advice, summon aid, contact people and provide a direct line into all the resources of the Laboratory. Instrumental to this communication process is the Fermilab Escort Service. The Escort Service is comprised of 50-60 people from all sections and divisions who will be assigned to work one-on-one with individual members of the DOE Tiger Team. The Fermilab Escort Service is under the leadership of Greg Bock and Stephen Pordes. According

Tiger Team Report



to Pordes, "the escorts will be the eyes and ears of the Laboratory during the assessment."

The escorts will have 3 main responsibilities. They will serve as:

- Facilitator and host. In this capacity the escorts will assist their Tigers with research and help the Tigers identify people to interview, set up meetings, provide documents, etc.
- Student and instructor. In this role, the escorts will help the Laboratory to learn from the experience and knowledge of the Tigers as they analyse our operations, and help the Tigers understand the mission of the Laboratory.
- Front-line reporter and interpreter. The escorts will maintain a logbook, tag identified problems, fill in Finding Sheets and inform the Laboratory of issues being raised and findings being developed. The escorts will also keep clear notes of "incidents," the Tigers' responses and suggestions, and work to ensure that the information the Tigers are given is accurate and misunderstandings are resolved.

Escorts are not expected to be omniscient in order to fulfill their responsibilities. They will have access to a team of Laboratory technical experts. It is expected that the Tigers and the escorts will develop a mutual professional respect based on ability to approach issues rationally and scientifically.

Both Bock and Pordes, who have visited other DOE Laboratories that have already completed Tiger Team Assessments, think that the Escort Service is critical to the review. The fundamental

question of the Tiger Team Assessment is: Does Fermilab have the commitment and capability to operate in a safe, healthy, environmentally responsible manner in compliance with existing regulations? "Providing the Escort Service in itself is a significant demonstration of a commitment," said Pordes. "The performance of the escorts and the ability of the Laboratory to react sensibly and effectively to problems during the Tigers visit is evidence of capability."

The Laboratory is currently in the process of selecting the Fermilab escorts for the Escort Service, but the final selection cannot be made until after the pre-assessment visit scheduled to take place early this month. After the pre-assessment visit, the DOE Tiger Team members will be selected and their corresponding escort can then be determined.

The members of the Escort Service will not have an easy schedule during the Tiger Team Assessment. According to a tentative schedule plan, they will begin their day at a 7:30 a.m. escort briefing, meet their Tigers around 8 a.m. to arrange the day's interviews and spend the rest of the day escorting the Tigers on their appraisals. At the close of the business day, they will attend their Tigers' daily closeout meeting and then attend the escort daily closeout meeting, ending their day around 7 p.m.

A meeting for approximately 60 potential escorts, selected by the Directorate, was held Thursday, March 26 in Curia II. Director John Peoples opened the meeting by thanking in advance those in attendance. "As an escort you have an important role that must be taken seriously. The organization of the Response Team has been fast. I thank you in advance for the part that you will play."

Fermilab Arts Series presents

Los Folkloristas

**Saturday, May 2, 1992
at 8 p.m.**

"Once in a while art offers a new view of an old truth. Los Folkloristas, a seven-member group of musicians-singers from Mexico, bend all expectations out of shape: The only predictable thing about one of their performances in that something peculiarly true and beautiful will surface during the evening." — *Christian Science Monitor*.

Discover authentic Latin American music as Los Folkloristas visit Fermilab's Ramsey Auditorium on Saturday, May 2 at 8 p.m.

Although they are just gaining recognition in the United States, Los Folkloristas have been sharing their music throughout the world for more than twenty-five years. Each of the seven members is dedicated to preserving, with the greatest possible authenticity, the history, music, and folklore of ancient Mexico and Latin America. The members of the group are also strong proponents of Nuevo-Cancion (new song), the

contemporary Latin American political music movement with folkloric origins. Upon first hearing Los Folkloristas one quickly realizes that the music is unique. The unusual timbres of the many authentic instruments combine with a strong percussive element to create a high level of excitement. To build their current repertoire of over 200 songs, the members traveled to remote villages throughout Latin America recording songs, gathering instruments, and learning to sing and play in the original languages and styles.

Los Folkloristas have acquired nearly a hundred different instruments, including some which go back to pre-Colombian times. They consider these instruments to be their "most valuable cultural heritage, and most cherished tool." Many of these items are handmade replicas of ancient musical instruments found only in museums. Every member of the group plays several percussion instruments, made from such unusual materials as butterfly cocoons or turtle shells, in addition to their other specialities.

Admission to **Los Folkloristas** is \$9. Tickets are non-refundable. For further information or telephone reservations, call 708-840-ARTS weekdays between 9 a.m. and 4 p.m.

Fermilab Lecture Series presents

The Physics of Baseball

**Dr. Robert K. Adair,
Sterling Professor of
Physics,
Yale University**

Friday, May 1, 1992 at 8 p.m.

With the arrival of spring, so begins one of the great All-American pastimes: baseball. Dr. Robert K. Adair, who served as the Physicist to the National League from 1987 to 1989 helps ring in the season with his lecture, **The Physics of Baseball**, in Fermilab's Ramsey Auditorium on Friday, May 1 at 8:00 p.m.

An interesting portion of baseball can be understood on the basis of physical principles. The flight of balls, the liveliness of balls, the structure of bats, the transfer of energy between batter and bat, the collision be-

tween bat and ball, all fall into the natural province of physics and the physicist. Dr. Adair will demonstrate these factors of the game of baseball, taking into account how the game is played now as well as how it has been played in the past.

Dr. Adair is currently a Sterling Professor of Physics at Yale University, where he has been on the faculty since 1959. His specialization is Elementary Particle Physics and he has worked on experiments at Fermilab. His tenure as Physicist to the National League from 1987-1989 qualifies him as an expert on the topic of baseball. He blended his expertise in the field of physics with his love of baseball in his book "The Physics of Baseball," written in 1990. Dr. Adair is highly involved in the National Academy of Sciences, where he is presently the Chairman of the Class of Physical Sciences.

Admission to **The Physics of Baseball** is \$3. Tickets are non-refundable. For further information or telephone reservations, call (708) 840-ARTS weekdays between 9 a.m. and 4 p.m.

Coming up

**Summer
Music Series
\$27**

**Beausoleil
June 27**

**Malcolm
Dalglish &
Helicon
July 18**

**James Cotton
Acoustic All
Star Trio
August 22**

**Series Tickets
Available Now**

**Single Tickets
Available
May 10**

How they got hurt

The leading causes of on the job injuries

Falls

In the last issue of *Ferminews* we presented the number two cause of on the job injuries—impact accidents. Next in line, are injuries resulting from falls. Fall injuries are as common in the home as they are at the worksite, so fall prevention is truly everyone's business. To avoid injuries from falls, be sure that your footing is firm—wear slip-resistant shoes and avoid hurrying. Make sure that walkways are well-lighted and clear of obstacles. Learn how to use ladders and scaffolding safely, and always use handrails when climbing stairs.—*Parlay International*

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.

Classified ads

Vehicles

1979 Ford Bronco truck, black and silver, removeable cab top, \$1,400 o.b.o. Call Gary at x3366 or 815-838-7565.

1979 Ford van, 15 passengers, no rust, Arizona vehicle, 300 cu in., 6 cyl., over 100k miles, \$1,500 o.b.o. Call x3428 or 708-766-0982.

1984 Tempo GL, 4-dr, 4 cyl. auto, a/c, cruise, 63k miles, \$3,450 o.b.o., call A. Visser at x3273 or 708-232-4023 after 6 p.m.

1984 Ford Escort 2-dr, hatchback, sunroof, am/fm cassette, 54k miles, new tires, \$1,200 o.b.o. Call Daniel at x3604 or 708-416-0195 or Email: FNAL::DØ Daniel.

1990 Chevy Astro CS van, ps, pb, auto, a/c, AM/FM cassette, 45K miles, new brakes, nice interior, excellent shape, \$10,000. Call Louie at x3712.

Miscellaneous

16 foot, square back canoe, fiberglass body over wood frame, 90% finished, \$125 o.b.o. Call Tim x4070.

For sale: Genesis water treatment system, 4 functions in one—filter, clarifier, softener, removes bad taste and odor. Removes 99.8% contaminants. Electronic computer measures family usage. Solid state parts. Rids iron at 3 ppm. Will help with installation if needed. Price \$650. Call Dave at x4533 or 708-552-1320.

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 x 4860.

Wanted

Tandy computer cassette recorder, the type used on old TR-80 style computer. Call Diana at x3654.

Real estate

For rent: Large studio apartment in Aurora, \$275 per month and one bedroom apartment in Aurora, \$400 per month. Call Barbara after 5 p.m. at 708-859-8699.

NALREC News

Upcoming events.

Children's Easter Egg hunt: Get ready because Peter Cottontail is coming Sunday, April 5 from 1:00 p.m. until 2:30 p.m. There will be Easter eggs, cookies and punch and plenty of fun for children up to age eight at the Kuhn Barn. Plan on it!

Cookout Social Hour: Spring is coming and we'll be outdoors to enjoy it on May 1. Watch *Ferminews* for details and plan to attend.

White water rafting: There are two trips now! June 13-14 and July 18-19 are the dates set for the 2 two-day rafting trips at Wolf River, Wisconsin. Check your calendar and plan to go on one of these exciting trips. Just \$90 for one night Motel/Lounge, bus ride, plus snacks to and from, total of 10/12 hours rafting and \$10 for Indian Reservation Gambling. See Dominick x3187 with a \$50 deposit to secure a seat. The trips are filling fast.

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 p.m. Cost is only \$3.50 and of course there will be door prizes. It's a Saturday night; mark your calendars.

Really in the works: a horseback riding trip and White Sox games in Milwaukee and Detroit. More later. . .

Next issue of *Ferminews*: April Social Hour information.—*Charlotte Smith*

Harper's index

Percentage of American households in which no books were bought last year: 60.

Ratio of the number of unemployed white-collar workers to the number of unemployed blue-collar workers: 1:1.