

FermineWS

FERMI NATIONAL ACCELERATOR LABORATORY

Users praise performance and plan future

Nearly 375 users and Fermilab staff gathered for the Users Annual Meeting June 11 in Ramsey Auditorium. The day-long discussions emphasized recent fixed-target and collider run accomplishments and the future of the Laboratory in light of recent budget cuts.

Chairman of the Users Executive Committee Dave Cutts welcomed the Fermilab users and community to the meeting. Director **John Peoples** began the day's talks with an address on the state of the Laboratory.

"We just finished a spectacular year," John said. "You did a great deal. I am proud and hopeful we will do very well in the future. DØ and CDF have the opportunity to discover the top [quark]. But beyond 1994, I have deep concerns for Fermilab and for the country. We have to face the cost of the deficit and the cost of cleaning up the weapons facilities."

In his speech, John continued to congratulate both DØ and CDF for their accomplishments during the recent collider run. "Two years ago we set luminosity goals and we met those goals handsomely. CDF and DØ made very good use of the luminosity. That is an impressive change. DØ brought their detector on very quickly. The performance of both CDF and DØ gives us a great amount of confidence that they can record data at higher luminosity. The only limitation to the luminosity is our cleverness."

John said that there are many goals set for the Laboratory in 1994. Among them is to provide users and staff with the computing tools to analyze the data collected in the last two to three years, run the collider for at least eight months and prepare for Collider Run II in 1997 and the next fixed-target run in 1995.

"These goals can be achieved, but not without difficulty," said John. "We will need more funding. The upgrading of the colliders will depend on that funding. The budget will



This year the Users Executive Committee focused on the critical need to educate the public and Congress about high-energy physics. Members of the committee are: (standing l to r) J. Spalding, M. Tuts, D. Cutts, B. Barnett, S. Seidel and J. Rutherford. (sitting l to r) M. Campbell, C. James, G. Ginther, E. Fisk and S. Kuhlmann.

decline by more than 10%, (about) \$6 million less. The price tag for the upgrades is \$40 million."

John added that the schedule for funding and accomplishing the goals is tightly coupled. "We can't determine one without the other. The improvement of the collider program is the most expensive, but it is the only way to break out of the Standard Model prison. If top is going to be discovered in the next five years, it will only be at Fermilab. To do this, we need the Main Injector and upgrades to CDF and DØ."

In the longer term future, there will also be difficulties to face, said John. "DOE is being attacked by committees in Congress. We are in a new period, and we will be subjected to more accountability. We have to realize that to be supported by the public is a privilege. We have a great number of opportunities for the future."

In his concluding remarks, John thanked the many users who "went out of their way" to educate Congress on Fermilab's mission. "This contributes a great deal," said John. "We will have to do more of it in the future."

John O'Fallon, director of the DOE Division of High Energy Physics, spoke next with a report from Washington. "The budget picture is not a good one," O'Fallon began. "We shouldn't just accept it, but take what action we can."

O'Fallon said that the high-energy-physics budget has re-

inside

Lederman Wins Fermi Award
page 2

■
Geese Get Caught by Tag Team
page 2

■
Main Injector Moves Ahead
page 3

■
Announcements
page 4

■
Art Series Welcomes Guitarists
page 7

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 Fri., July 16 issue of *FermineWS* is Wed., July 7. 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.



Continued on page 6

Former Director Leon Lederman wins Fermi Award



President Clinton recently announced that former Fermilab Director Leon Lederman is one of three physicists to win the 1992 Enrico Fermi Award. The other two winners are Harold Brown and John S. Foster, Jr.

Leon is the second Fermilab director to win the award. Robert Rathburn Wilson received the award in 1984.

The Fermi Award is the government's oldest science and technology award and one of its most prestigious. It is given for a

lifetime of achievement in the field of nuclear energy. This Presidential Award carries a gold medal and a \$100,000 honorarium.

"Just over 50 years ago Fermi harnessed the atom," said Secretary of Energy Hazel O'Leary. "It is extremely fitting that these scientists be honored for continuing Fermi's tradition of selfless contribution to science." DOE administers the Fermi Award for the White House, and Secretary O'Leary will present the awards at a public ceremony in Washington, D.C. on July 29, 1993.

Leon gave credit for the award to his association with Fermilab. "I think the award is mostly a recognition of the success of Fermilab—

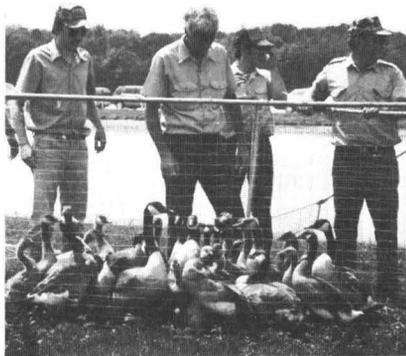
despite my 10 years as director," he joked.

Leon's research has spanned four decades and includes some remarkable achievements, many of which were made here at Fermilab. These achievements include the discovery of the muon neutrino and his collaborative work in uncovering evidence for the bottom quark. In 1988 Leon received the Nobel Prize in Physics for his muon neutrino research.

Beyond his work in experimental research, Leon has long recognized the importance of science education, initiating over 15 education programs for high school students and elementary school and college teachers while Fermilab director. His vision and leadership brought into existence the Illinois Mathematics and Science Academy in 1986 and, in 1990, the Teachers' Academy of Mathematics and Science in Chicago. Fermilab's own Science Education Center bears Leon's name.

Leon continues to involve himself in education projects and is currently chairperson of the XXIV International Physics Olympiad being held July 10-18 in Williamsburg, VA. This is the first time the United States has been host of the event. He is also involved in education projects with the Chicago Public Schools and continues to teach as the Pritzker Professor of Science at nearby IIT.

Geese get tagged in migration study



Conservation officials and local volunteers round up geese at Fermilab for identification tagging and inspection. After the waterfowl have been tagged and sexed, they are returned to their habitat. Collecting information like this all across Illinois, the state conservation department hopes to better understand the migratory habits of these birds.



Past Recipients of the Enrico Fermi Award		
John von Neumann (1956)	Norris E. Bradbury (1970)	John H. Lawrence (1983)
Ernest O. Lawrence (1957)	Shields Warren (1971)	Robert R. Wilson (1984)
Eugene P. Wigner (1958)	Stafford L. Warren (1971)	Georges Vendryes (1984)
Glenn T. Seaborg (1959)	Manson Benedict (1972)	Norman Rasmussen (1985)
Hans A. Bethe (1961)	William L. Russell (1976)	Marshall Rosenbluth (1985)
Edward Teller (1962)	Wolfgang K.F. Panofsky (1978)	Ernest D. Courant (1986)
J.R. Oppenheimer (1963)	Harold M. Agnew (1978)	M. Stanley Livingston (1986)
H.G. Rickover (1964)	Rudolf E. Peierls (1980)	Luis Alvarez (1987)
Otto Hahn (1966)	Alvin M. Weinberg (1980)	Gerald F. Tape (1987)
Lise Meitner (1966)	W. Bennett Lewis (1981)	Richard B. Setlow (1988)
Fritz Strassman (1966)	Seth Neddermeyer (1982)	Victor F. Weisskopf (1988)
John Wheeler (1968)	Herbert Anderson (1982)	George A. Cowan (1990)
Walter H. Zinn (1969)	Alexander Hollaender (1983)	Robley D. Evans (1990)

FMI project "digs in"

This "backyard" hole is pretty impressive.

Over 10 meters deep, the excavation for the below-grade portion of the Main Injector closest to the Main Ring is nearly complete.

When finished, over 7,000 square meters of steel sheet piling surface will have been driven through the surface dirt and sand into the more stable glacial till layer. These pilings retain the surrounding earth while excavating crews dig out the area that will eventually house the Main Injector's rf cavity, main cooling systems, beam extraction lines and main drop hatch.

The below-grade construction at the MI-60 site (the FØ area of the Main Ring) is the next step in the continuing process of bringing the Fermilab III project to fruition. The Main Injector, designed to replace the Main Ring in the five-accelerator cascade, is the final and most extensive piece of the Fermilab III program.

The construction process was begun in earnest last summer with the civil contract work on wetland mitigation. Excavation of the MI-60 site began this past March (the formal groundbreaking for the Main Injector was held on March 22). Deputy Project Manager **Dixon Bogart** (AD) said that construction at this site should be completed by April 1994.

This construction will include building the below-grade enclosure and a large service building on the surface. The building will eventually house support systems and

equipment, including a 30-ton crane over the drop hatch entrance for the lowering of the massive magnets to be used in the injector ring. The construction on the MI-60 service building will begin sometime in mid-summer of this year.

Future construction for the Main Injector project will include site preparation of the ring circumference and the actual tunnel construction. One of these two construction jobs is already beginning to move forward.

Martam Construction has been recognized as the apparent low bid for the site preparation construction. Site preparation will mean, among many things, constructing an access road around the circumference of the Injector Ring, laying in electrical lines and a complete water system. As soon as a contract can be finalized (hopefully within a few weeks), this site preparation can be scheduled for start-up.

New magnets for the FMI have gone through an extensive development and testing process, and are now at the stage where serious production can commence. The cop-



A section of the below-grade excavation at MI-60.

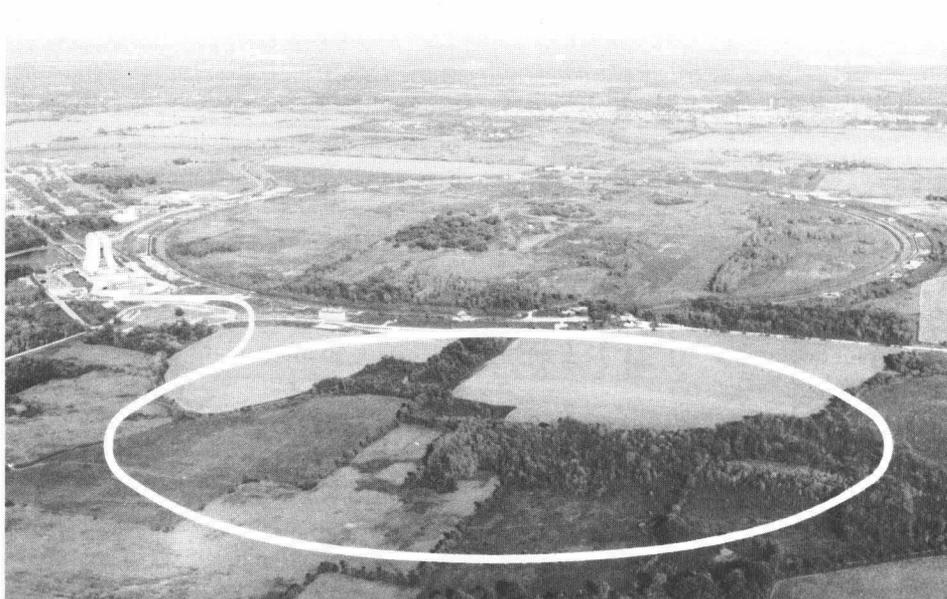
per bending and insulating, as well as the steel die-cutting and lamination, will be done by outside contractors. Final assembly will take place on-site at Fermilab. Dixon expects that the first production-level magnets will be seen by the end of fiscal 1994. In addition, many of the magnets from the Main Ring are to be recycled and used in the Main Injector.

The final completion schedule for the Main Injector and Fermilab III is, at present, completely funding limited. The most recent DOE review committee wrote in its report that the FMI could easily commit three times as much funding for FY1994 as the President's budget request shows for the project. Unless this constraint is loosened, completion of the project could be pushed back into late 1998.

Why a Main Injector?

The Main Injector is the last step in Fermilab III, a series of upgrades that are intended to greatly improve the collision rate of the Tevatron. The major limit on increasing the performance of the Tevatron is the Main Ring. Due to modifications that allowed the installation of the CDF and DØ detectors, the Main Ring has become much less efficient in recent years.

The Main Injector is designed to perform all the duties of the Main Ring, but with increased efficiency and reliability. With the FMI upgrade and other recent Fermilab III improvements, Fermilab will be ensured a position at the forefront of high-energy physics into the next century.



Taste of Fermi & Family Day promises fun for all

An action-packed afternoon and evening are planned for Friday, August 6. (Due to popular demand, we've even extended the evening 'til 10 p.m.!) Nalrec's *Taste of Fermi* will offer lots of choices from hot dogs and chicken wings to tacos and Italian beef. For the traditionalists, we'll have a corn boil, watermelon slices and an old-fashioned Cake Walk sponsored by Nalwo.

We also hope you'll take time out from picnicking to play some of the family games. For athletes young and old, there's "30-Liter Bowl" and "Twister Toss." For calmer sport, visit the Tattoo Parlor.

All these festivities will be available

Nalrec news

The July Social Hour will be held on July 16 from 5:15 to 9:30 p.m. Ribs on the grill will be served. The Orbitals, a rock n' roll blues band, will provide musical entertainment.

Limited tickets are available for the Cougars' game Sunday, July 11 at 2 p.m. It should be a great day. Denise Bumbar (front desk) x2787, Charlotte Smith (WH5E) x8640 or George Davidson (Vehicle Maint. Site 38) x3307 have what few tickets are left. This game is with the Peoria Cubs.

Mark your calendars for August 6, 1993—it's Family Day.

—Charlotte Smith

Housing deadline

The Housing Office is currently taking requests for on-site housing from September 1993 through May



1994. The deadline for requests is July 9. Responses will be mailed by August 6.

For further information contact the Housing Office at x3777 or e-mail FNALV::HOUSING or fax 708-840-2823.

Announcements

Ferminews

Movie schedule announced

The Fermilab International Film Society presents movies from all over the world. Movies are shown at 8 p.m. Fridays in Ramsey Auditorium. All foreign films have English subtitles. Admission is \$3 for adults, \$.50 for children 12 and under.

Coffee and cookies are served on the second floor mezzanine following each film.

July 9: *Pale Rider*, Clint Eastwood directs and stars in this western as a nameless drifter known only as "Preacher" who steps into a fight between prospectors and an evil mining company, U.S., 1985, 115 minutes.

July 23: *Ramblin' Rose*, A 13-year-old boy in a well-to-do Southern family during the Depression falls in love with a charmingly promiscuous housemaid (Laura Dern). Martha Coolidge, director, U.S., 1991, 112 minutes.

New benefit booklet mailed

Recently, a booklet titled *URA/Fermilab Flexible Benefits Plan* was mailed to employees' mail stops. The booklet describes the flexible benefits program established last November for a January 1, 1993 effective date. You should keep this booklet with your other benefit booklets whether or not you are enrolled in the plan this year. If you have any questions about the program or did not receive a copy, please call the Benefits Office at x3395, 4362 or 4361.

—Paula Cashin

Summer tours correction

The announcement of Sunday summer tours in the last issue of *Ferminews* contained an incorrect date. The tour scheduled for September is to be held on Sunday, September 19—not September 20 (a Monday).

from 5 p.m. at the Village, but we also suggest you spend time visiting some of the unique sites around the Laboratory. Tours will last from 4-7 p.m. Technical Support will be showing off the computer-assisted drawing and robotic parts inspection that have helped build our magnets. The Accelerator Division is throwing open the doors to the Antiproton Source. FESS is planning two interesting contests for kids at the Buffalo farm. See our impressive computing power on your visit to the Feynman Center.

Please note: The Users Center will be closed Friday, August 6.

Activity discounts

The following discounts are available in the Activities Office WH15W.

Wisconsin Dells: Lots of tickets for admission to Riverview Park and Waterworld, Pirates Cove Miniature Golf and the Lower Dells boat trip are for sale in the Activities Office. Normally, the purchase price for admission to these three attractions is \$30.75. We are offering this group of tickets for \$13.75. This is a 55% savings.

Special Magic Kingdom Club benefit: Disney's Symphonic Fantasy, a live stage spectacular featuring classic Disney music and characters, will be held at Poplar Creek Music Theater on August 1, 1993. Symphonic Fantasy combines the skills of Disney designers and technicians in a full evening of live symphonic music, complete with Disney characters, dancers, chorale singers and over 70 performers. Members save 10% by using the Magic Kingdom Club card available in the Activities Office. See poster in Activities Office for additional information.

Getting enough?

Are you getting enough copies of *Ferminews*? If you have new hires or summer employees please notify the Publications Office at x3278, MS 107, or TECHPUBS@FNAL to update your count.

Support group comes to Fermilab

Children with rare chromosome disorders, their families and medical professionals will be coming together at the Support Organization for Trisomy 18, 13 and related disorders Annual Picnic and Memorial Balloon Launch here at Fermilab on Saturday, August 7.

The picnic is part of an international conference for some 500 S.O.F.T. members being held at the Hilton, Lisle/Naperville.

Trisomy 18 and 13 are chromosomal conditions in which three chromosomes rather than the usual two are present in a particular chromosome pair. Over 2,000 children each year are born with the disorders, and the majority of these infants fail to see their first birthdays.

The conference is a volunteer-run effort,

hoping to unite families needing support, education and information to help them deal with the variety of challenges facing children born with these life-threatening conditions. It will include workshops, speakers, displays and other social events.

The Fermilab picnic is one of those social events. **Henry Schram (RD)** is a member of S.O.F.T. and is the contact person for organizing the picnic. Henry is asking for assistance from any Fermilab employees who might be interested in helping with any aspect of the conference or picnic, or who would be willing to come and answer questions about Fermilab at the picnic.

If you are interested, you can reach Henry at x3377 or MS 329.

ES&H annual microwave oven survey

Are there any large cracks or gaping holes in the face shielding of the microwave oven in your work area? Are there so many reheated leftovers stuck to the top and sides of your microwave that your popcorn tastes like meat loaf? Do you have to shake the cord twice and stand on your left foot for your microwave to turn on? If you suspect the answer to any of these questions is "yes," it is probably a good idea to have your on-site microwave oven surveyed for leakage.

The ES&H Section surveys microwave ovens at Fermilab annually to ensure that they do not present electrical, sanitation or radiation hazards. Each summer ES&H personnel use a microwave oven radiation leakage detector to make certain that no oven

emits excessive microwave radiation. The ovens are also checked for electrical grounding and the condition of the electrical cords and plugs are examined. Finally, each oven's sanitary condition is evaluated. When the microwave has been surveyed and is safe to use, a **notice** sticker showing the date of the survey will be visibly affixed. Any oven found to be unsafe for any reason is unplugged and tagged-out until corrective action can be taken.

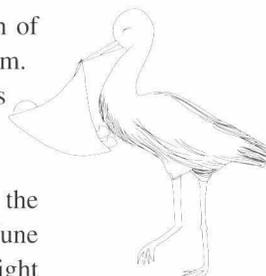
The annual survey is a time when all microwaves on site are checked, but it is not the only time that they can be surveyed. Please contact the ES&H Section at x2977 if you have a new microwave oven or an oven that you suspect could be unsafe.

—Aimee Vessell

Congratulations to

Bessie and **Anthony Rodriguez (RD/Alignment)** on the birth of their daughter Alexis Eleni. Alexis was born on May 20 at 5:09 a.m. at Mercy Center in Aurora. She weighed seven pounds, 9 ounces and was 20 inches long. This is their first child.

Michael (RD/Alignment) and **Luann O'Boyle (CD/Ofc)** on the birth of their daughter Shannon Wynne. Shannon was born on June 4 at 4:42 p.m. at Copley Hospital in Aurora. She weighed eight pounds, 11 ounces and was 21 inches long. Shannon is welcomed by siblings Patrick and Jenny.



Fine July dining at Chez Leon

Call x4512 for reservations. Lunch Wednesdays at 12:30 p.m., \$13. Dinner Thursdays at 7 p.m., \$23.50. Specify special diet or celebration.

Wednesday, July 7

Melon and proscuitto, filet of sole with crabmeat, vegetable of the season, fresh garden salad, apricot sorbet.

Thursday, July 8

Garden-fresh tortellini salad, grilled veal chops with lemon and capers, potato fontecchio, vegetable of the season, Gran Marnier souffle.

Wednesday, July 14

Cold avocado soup, chicken curry with condiments, steamed jasmine rice, pink and white grapefruit with candied rinds in rum.

Thursday, July 15

Sancochode gallina with pastellitos, red snapper with avocado sauce, moro de guandules, watercress, orange and red onion salad, coconut flan.

Wednesday, July 21

Layered mozzarella and tomato salad with basil, selection of stuffed vegetables, chocolate and almond souffle with Amaretto creme anglais.

Thursday, July 22

Caponata, grilled rib lamb chops with basil and lemon, vegetable of the season, endive and escarole salad, blueberry tarts.

Wednesday, July 28

Greek salad with feta cheese, lamb and eggplant salad, orange caramel custard.

Thursday, July 29

Spinach pasta with salmon cream, grilled beef kabobs with vegetables, parsleyed rice, tomato basil salad, peach cardinale.

Attention authors

Beginning this month, technical papers pre-printed through the Publications Office will be printed on white bond paper rather than buff-colored paper. White paper is a less expensive, recyclable alternative to the colored paper, and is also easier to duplicate and fax.

Ferminews

Announcements

Users meeting continued

mained essentially flat over the last five years. The actual budget request for FY1994 is nearly \$628 million, down from the FY1993 request of nearly \$631 million.

"High-energy funding has slowly declined since Fermilab was built," O'Fallon said. "In the last few years there has been a disturbing trend of decreasing operating budgets. This slow decline over the last two to three years has caused a lot of concern."

O'Fallon added that the basis for concern is the high-energy-physics base program. "It is a living, active program," said O'Fallon. "We are educating students and doing research and all that comes from a declining budget. Somehow we have to turn that decline around. Putting together a budget is not arbitrary. The key element of 1994 is to do physics and everything must be judged against that. The SSC is the community's top priority. The time for physics at the SSC is 10 years away. We have to carry out existing physics programs. That will come from Fermilab, SLAC and Brookhaven."

Moving away from budget concerns, O'Fallon congratulated Fermilab on the outstanding recent luminosity achievement and the reliability of the Tevatron. "Fermilab is the most productive lab in the high-energy-physics program," said O'Fallon. "We expect Fermilab to continue until the SSC comes on. The Laboratory's importance will remain until then."

O'Fallon said that the future of the Laboratory, after the SSC is operating, depends on Fermilab's ability to determine unique and cost-effective experiments. "I am sure Fermilab can do it. You can find the physics that justifies it."

He added that the future of the high-energy-physics program is a matter of education. "DOE must educate its superiors and the Office of Management and Budget. Fermilab people must educate Congress. We have to realize the justification for support is a never-ending battle. We have to keep educating the new crowd that comes in."

Following O'Fallon's address was a series of talks on recent fixed-target and collider experiment results. In a session organized by **John Cumalat** (E687), **Rob Gardner**

(E687), **Bill Hogan** (E773) and **Janet Conrad** (E665) discussed fixed-target results. **Bruce Barnett** (CDF) chaired a session in which **Larry Nodulman** (CDF) and **Amber Boehnlein** (DØ) presented the recent physics results from the collider experiments.

After these presentations came a report on computing by **Joel Butler** (CD) and a discussion on opportunities and challenges at Fermilab by **Jon Rosner** (RD/Theory).

Deputy Director **Ken Stanfield** spoke on the long-range plans for the Laboratory from 1993 to 1998. He said that during this period accelerator improvements including the Main Injector will be completed. He expects these improvements to yield an average initial luminosity of 7×10^{31} and extracted Main Injector beams of 5×10^{13} protons every 2.9 seconds with 34% duty factor. During this period, Collider Run IB will operate beginning in October 1993, and following the implementation of the accelerator improvements, Run II will begin in late 1997. Ken also said that during this time, approximately six or seven fixed-target experiments

will run beginning in 1995. These experiments will cover the areas of kaons, neutrinos and high-statistics charm. Plans for collider *B* physics will also be developed.

Other talks on the Laboratory's future were given by **Steve Holmes** (AD/HQ), **Stefan Gruenendahl** (DØ) and **Gina Rameika** (RD).

The meeting concluded with a panel discussion on science policy, its implementation and the future of high-energy physics. The panelists included William Chinowsky (National Science Foundation), John O'Fallon, Robert Park (American Physical Society), John Peoples, Michael Schmidt (Yale), John Toll (URA) and **Alvin Tollestrup** (CDF). Look for an article highlighting the discussion and implications of this panel discussion in our next *Ferminews*.

The meeting then adjourned to the Users Center for a social hosted by URA.

The meeting's smooth operation was due to the hard work of the Annual Meeting Secretariat **Joy Miletic**, **Mercedes Nylund** and this year's summer student, **Elizabeth Austin**.

Tornado facts that can save your life

In another of our severe weather information articles, we highlight some of the less-known facts about tornadoes. These are the kind of facts that could help you avoid a life-threatening situation or serious injury. Information was provided by the National Weather Service.

- Tornadoes travel at an average speed of 30 miles an hour, but speeds ranging from stationary to 70 miles an hour have been reported. While most tornadoes move from the southwest to the northeast, their direction of travel can be erratic and may change suddenly.
- While hail may or may not precede a tornado, the portion of a thunderstorm adjacent to large hail is often the area where strong to violent tornadoes are most likely to occur.
- The tornado's atmospheric pressure drop plays, at most, a minor role in the damage process. Opening a window to equalize inside and outside pressure is not recommended.
- Tornado wind speeds increase with height within the tornado, i.e. the higher off the ground, the stronger the winds. The lowest floor or basement of a building offers the greatest protection from tornadoes.
- Tornado winds may produce a loud roar similar to that of a train or airplane.
- Although most tornadoes occur during the mid-afternoon or early evening (3-7 p.m.), they can occur at any time; often with little or no warning.



Fermilab Arts Series Presents:

Peter Ostroushko, Dean Magraw & Claudia Schmidt

Three former *Prairie Home Companion* favorites bring their special brand of music making to Fermilab's Ramsey Auditorium on Saturday, July 17, beginning at 8 p.m. Peter Ostroushko (pronounced Ahs-trooshko), Dean Magraw and Claudia Schmidt will perform a variety of solo and group efforts in their Fermilab appearance.

Claudia Schmidt returns to Fermilab after a popular folk showcase appearance in 1988. She has been performing for close to 20 years, bringing songs and stories of her life in the Midwest to audiences across the country.

Claudia entered living rooms throughout the country as a frequent and popular guest on Garrison Keillor's *A Prairie Home Companion*. Her compositional skills recently came to light in Chicago when she wrote the original score for Brecht's *The Good Person of Setzuan* at the Goodman Theatre, for which she was recognized with a Jeff Award. One

critic has described a concert with Claudia Schmidt as "a lot like falling in love. You never know what's going to happen next,

chances are it's going to be wonderful. . . ."

One critic summed it all up, "Peter Ostroushko can play anything! And usually does - ." Regarded as one of the finest mandolinists and fiddlers in acoustic music, Peter has performed as lead ukulele with the Minnesota Symphony Orchestra, played an uncredited mandolin solo on Bob Dylan's recording of *Blood on the Tracks*, and ap-



peared on radio and television including *Mountain Stage*, *Good Evening*, and *A Prairie Home Companion*, where he was a long-



time performer as well as music director. He mixes music from his Ukrainian roots with other old-world sounds, a little jazz, bluegrass and swing and creates "Sluz Duz" music, a term borrowed from his mother meaning, roughly, "off his rocker."

Peter will be joined by his frequent partner Dean Magraw. Magraw's guitar playing ability has earned him much attention in both the jazz and ethnic music realms. He has recorded several albums with Ostroushko and Claudia Schmidt, and is involved in various ethnic music projects including a duo with noted tabla artist Marcus Wise and in the Jacobbeats, a Scottish/Irish band with Laura MacKenzie and in the Minneapolis jazz scene.

For those of you looking for some great new folk music to those of you yearning for PHC nostalgia, don't miss an evening of great music making on Saturday, July 17 at 8 p.m. Tickets are \$9. For further information or telephone reservations, call 708-840-ARTS weekdays from 9 a.m. to 4 p.m. At other times an answering machine will give you information and a means of placing ticket orders.

Fermilab recreation hits a high during summertime

Imagine, for a moment, something the theorists call an ideal state. And, in this ideal state is an ideal person. Now, imagine that this is the ideal state of recreation, and our person is the Ideal Recreator.

The Ideal Recreator starts the day with a swim in the pool, moves on to a quick game of tennis and then hops on a bike for a brisk ride past open fields and a buffalo herd. After fishing in open waters near the nests of wild waterfowl, the Recreator takes a relaxing walk through prairie grasses. The Ideal

Recreator finishes the afternoon out with volleyball and softball games, winning both competitions.

This might be an impossible day for anyone but the ideal, but here at Fermilab anyone can enjoy these off-work activities.

The recreational environment at Fermilab is unique in this area. The availability of outdoor venues and indoor facilities for sports, hobbies and social events is one of the more enjoyable parts of working at the Lab.

Jean Guyer, recreation manager at

Fermilab, said that the recreational environment at Fermilab has become more visible and accessible to employees in the past several years. "Recreational aspects are beginning to be seen as an important part of the benefits of employment at Fermilab," said Jean. "It has come a long way." She estimates that as many as 70% of Fermilab's employees are involved in some kind of Lab-associated recreation. Jean did add, however, that both participation and the quality of activity. Continued on page 8

Ferminews

Special Interests

Recreation continued

ties can continue to be improved.

In addition to the individual activities possible, there are several sports leagues and many special interest clubs registered with the Activities Office. The competitive sports leagues range from bowling to basketball, and clubs are as diverse as amateur radio operators and the dart club.

One of the largest "clubs" is the Nalrec organization. While officially a club, Nalrec organizes and supports a great number of on- and off-site social activities. They develop group trips to places like the upcoming Mall of America weekend. They also put together special events like the July 11 Fermilab-Kane County Cougars Day, just next week.

Whatever your recreational preference, this is the perfect time of year to explore the possibilities for fun and relaxation at Fermilab.

If you need further information on any of the activities or facilities at Fermilab, you can call the Activities Office at x2548.

Harper's Index

Price of a Buffalo Burger "from the herd appearing in *Dances with Wolves*," at Al's Oasis in Oacamo, South Dakota: \$2.95

Estimated number of body parts suitable for piercing, according to *Gauntlet*, a New York City jewelry store: 30.

Classified ads

Vehicles

1988 Yamaha Razz motorscooter, 49cc, black, 1,618 miles, like new, new battery, windshield, dual rear view mirrors, basket, perfect campus transportation, price negotiable. Call Jack at x4191.

1985 Buick LeSabre, 4 door, 76,700 miles, clean and runs very well, dark blue, AC, PS, AM/FM stereo radio, \$4,000 o.b.o. Call Dick at x4167.

Miscellaneous

Deluxe, king-size **waterbed**, waveless, dual heaters/controls. Use any king fitted sheets, \$250. Call 708-377-9252.

1972 Glasstron Tri-haul **boat**, special, 1986 Johnson motor, 28 horse, steering column, \$1,950. Call Tim at x4070.

RCA 13" **color TV**, 1982, good condition, original packaging, \$50. Contact Dallas at x3664 or FNAL::DKENNEDY.

80386SX, 20 mhz, 42MB. Hard drive, 4MB RAM, expandable to 16MB. 101 key keyboard, VGA display, mouse, 2 serial ports, 1 LPT port, 1 expansion BUS. DOS and Windows, PKZIP, ARJ, LHA, PKLITE, all pre-installed, \$900. Call Greg at x3011.

Woman's **3-speed Schwinn bike**, bronze in color w/bike bag, like new, \$100. Call Linda at x3082.

Hard disk for IBM, ST351A 41MB IDE, 1 yr. old, \$85. **Bowling ball**, no holes, never used, Brunswick 300, candy red, \$30. **Mower**, 19" Sunbeam electric, ex. cond., \$50. Call Gary at x2775 or 708-969-8613 evenings.

Super single **waterbed** w/6 drawer pedestal, headboard, heater, mattress & 3 sets of sheets, \$250 o.b.o. **Roll-a-way double bed** w/1 set of sheets, \$50 o.b.o. Sew sensor-electronic **sewing machine**, 100 stitch, \$300 o.b.o. Call Pam at x3015 or 708-879-9356 after 5 p.m.

Simmons Beautyrest Mattress, queen size, 10 yrs. old, very good cond. \$100 o.b.o. 48" solid oak **pedestal table**, \$150. **Baldwin practice piano** w/real strings, action, speakers & headphones, \$150 o.b.o. Beautiful **Scandinavian 36" square table** w/4 chairs, \$150 o.b.o. Antique **half-moon table** w/spool legs, \$100. Call Roy at x8364 or 708-665-8246.

Woman's **diamond and ruby ring**, size 6, appraised at \$3,000, asking \$1,500. Call Richard at x3740.

Safely using ladders should be an issue for you

Ladder accidents throughout DOE facilities over the past five years have totaled more than 500 and have accumulated over 4,600 lost workdays. These statistics indicate that ladders are a major worker safety issue. Here are a few risk factors and safety tips for using ladders in the workplace.

Factors involved in ladder accidents

- Attempting to carry supplies by hand rather than using a tag line.
- Losing balance while performing the work.

- Missing a step or foot slipping off rung, possibly because of haste.
- Improper lifting or carrying of ladder.
- Jewelry caught on ladder.

Accident prevention

- When necessary to work overhead, inspect ladders before using them.
- Use a ladder of sufficient length to be able to reach your work. Do not use makeshift ladders.
- Place the ladder so that its base is placed out from the wall one-fourth of the ver-

tical distance from the bottom of the wall to the top support.

- Ladders must be placed so that the top extends well above any roof edge, beam, plank or scaffold when it is necessary for you to step to or from the ladder.
- When climbing or descending, the climber must face the ladder and use both hands for climbing. Raise or lower tools and equipment by means of a hand line or canvas tool bag.
- Jewelry that can be caught on tools should not be worn.

—DOE/ES&H Bulletin