

# FERMINews

 Fermi National Accelerator Laboratory

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## A SMALL STEP TOWARD 1,000 GeV

The Switchyard's goal of delivering 1,000 GeV is a step closer after a three-week shutdown for maintenance/development.

An upgrading was completed at the area where the proton beam from the Main Ring is directed to target areas, said Roger Dixon, project leader. He reported construction was completed to allow installation of Energy Doubler (superconducting) magnets in the Meson beam line.

Two "pilot" magnets were inserted, he said.

After reliability tests, the Switchyard group will replace 56 conventional magnets in the Meson "left bend" area with 22 more Energy Doubler magnets. The special magnets are required to give the Switchyard capability of transporting 1,000 GeV beam to experimental areas.

Superconducting ED magnets will require only about a third of electrical power of conventional magnets, reducing power costs.

The Switchyard upgrading involved sinking a 23-foot concrete access shaft to the beam line tunnel. Also, a 150-foot transfer line was run underground to the tunnel from the Switchyard service building. The transfer line--a pipe containing five other smaller pipes--carries superconducting power leads plus liquid nitrogen for a cold shield and liquid helium for cooling.

Superconducting magnets measure 22 feet long by 15 1/2 inches square and weigh 7,000 pounds each. The pair installed were lifted by a power crane and tipped through the access hole. In advance, a test magnet had been tipped vertically and examined for internal damage. None was found.



*...In Switchyard upgrading, workmen install access shaft to beam line tunnel...*

The twin magnets installed are set to be tested before the next extended shutdown.

Dixon said the Target Group (Research Services) and Architectural Services cooperated in the Switchyard work.

Target people participating in transfer line work were: Ray Carra, Donald Connor, Joseph Davids, Bob Kephart, Mike McKenna, Jim Peifer, Clarence Rodgers, Jim Seeman and David Smith.

John Kidd and Jim Moncrieff represented Architectural Services during construction of the access shaft.

Cryogenic design and implementation was provided by Richard Andrews of the Accelerator Division; Mike Morgan of Cryogenic Consultants, Inc., Allentown, Pennsylvania; and John O'Meara of Meson.

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## MARTENS JOINS RETIREES' ROSTER

To just take it easy is the plan Carl Martens, a Fermilab retiree as of June 30, is following. However, the eight-year Laboratory employee in Site Services expects friends and acquaintances to draw on his talents as a carpenter, painter, plumber and steam fitter.



Martens joined Fermilab as a groundsman in 1970; he was promoted to maintenance group leader in May of 1977, a post he held until retirement. Martens came to the Laboratory after a 12-year career as a pressman at Meyercord Co., Carol Stream. He said he and his wife Margaret plan to tour Sun City, Arizona and other retirement facilities seeking to find a replacement for their Oak Park residence.

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## FALL HOUSING RESERVATIONS DUE JULY 17

Dorothy Carlson, Housing Office head, announces that reservations are being accepted for fall on-site housing units. Deadline for applications is 5 p.m. Monday, July 17. September 1 is the starting date for fall occupancy. If site facilities are filled, the Housing Office will assist in finding off-site accommodations. For more information, call Housing at Ext. 3560.

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## BLEED A BIT ... TO HELP YOURSELF/OTHERS

There is an ever increasing demand for blood. Blood is used for treatment of shock cases resulting from injuries, replacement of blood lost through excessive bleeding, or surgery, exchange transfusion in Rh babies, severe burns, anemia and in heart/lung machines during heart surgery.

Your body contains about 12 pints of blood. When you donate one, your body goes right to work and manufactures more to replace it.

You can assure yourself, family and fellow employees of blood replacement protection by donating Wednesday, July 12. The Aurora Blood Bank will take donations from 9 a.m. to 2:30 p.m. in the Central Laboratory west conference room. For an appointment, call Medical at Ext. 3232.

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*...1977 Ferris Wheel riders at Fermilab picnic...*

## ALL-LAB PICNIC RESERVATIONS DUE FRIDAY

Friday (July 7) is the deadline to make reservations for the Fermilab family picnic to be held Sunday, July 23.

From 11 a.m. to 6 p.m., the event at the Village recreation area will feature food, games and door prizes. Each employee and family member will receive four free tickets for refreshments. Additional tickets at 15¢ each will be available at the picnic. Free food tickets will be distributed in advance to those who sign up. Reservations are being taken by Cindy Carra, CL-2W, Ext. 3894.

Volunteers are needed to work for part of the day and/or contribute baked goods. Cakes, cookies and cupcakes are needed for a cake walk. Again, contact Cindy Carra to volunteer or for more information.

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*...Nobel laureate C. N. Yang (R) was guest speaker for a recent colloquium at Fermilab. He is shown with E.L. Goldwasser, Fermilab deputy director.*

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## BIRDS FIND HAVEN AT FERMILAB

Endangered barn owls are finding sanctuary in the shadow of Fermilab's accelerator.

About a month ago, three fledglings were placed in an abandoned barn on site. From a manmade nest, they were fed until they could fly and find food on their own. Scientists are monitoring their movements with small radio transmitters banded to the birds.

Cooperating in the owl restoration program are: Fermilab; Lincoln Park and Brookfield Zoos; the Fox Valley Park District's Red Oak Nature Center, North Aurora; and the Illinois Endangered Species Board.

Tom Maechtle, nature center naturalist, is conducting the project. "These owls," he said, "should form their own hunting territories. We hope to see them eventually breeding in the same barn or local vicinity." From a blind set up in the barn, the birds' movements are being recorded in detail.

"From these notes we hope to gather information on the social behavior of barn owls and other raptors," Maechtle said. "I'm sure we will discover methods that will improve our repopulation attempts in following years."

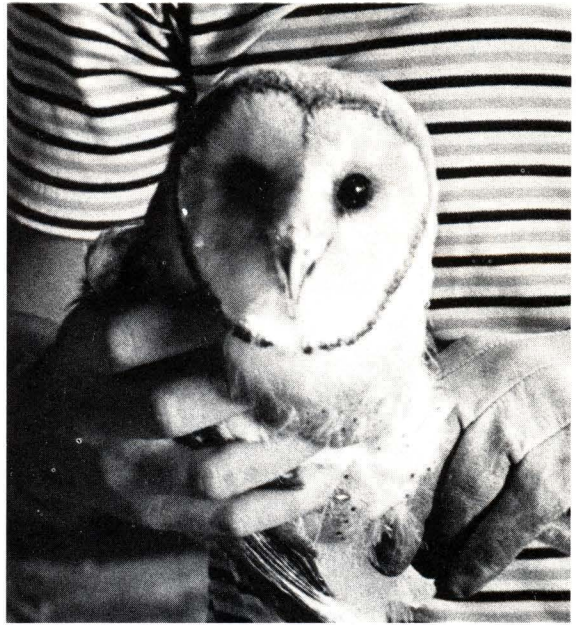
State conservation officials say no more than three or four barn owl sightings are reported annually. Their decline is due to loss of habitat, pesticides and man who believes that they prey on barnyard fowl.

Called nature's most efficient mouse-traps, barn owls each eat about 1,000 rats and mice per year.

Fermilab's owls were hatched from domestic eggs at Brookfield and Lincoln Park Zoos. Placed on site, they were fed a natural diet via a trap door until they were old enough to venture out at will. Additional releases onsite are planned; they are expected to return each Spring to breed. In about two years, scientists expect breeding will take place among the released owls.

Maechtle said adult barn owls, also called monkey-faced owls, weigh two pounds and have wingspreads of up to 30 inches.

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*...American Barn Owl: Fermilab's latest conservation effort...*



*...Barn owl meets K. Bell, Lincoln Park Zoo Naturalist...*



*...TV crew films birds' arrival...*



IN MEMORIAM

EDWIN L. JARMAN

May 7, 1910 - June 30, 1978

Word has been received of the death of retiree Edwin L. Jarman. Mr. Jarman, a Fermilab employee from 1969 to June, 1975, died in Harlinger, Texas. The former Aurora resident had served as a senior technical aid in the beam transfer section, Proton Laboratory and Accelerator Division. He was a member of The Committee from March, 1975, until his retirement.

Mr. Jarman received the Manhattan Project Award during World War II for work on the first atomic bomb at the University of Chicago. He had also served as an instrument maker at Argonne National Laboratory from 1944 to 1951. He left ANL to become a toolmaker salesman at Sequence Tool-Die Co., Chicago, a post he held from 1952 to 1967; then he worked as a tool inspector at Handy-Button Machine Co. for two years prior to joining Fermilab.

Survivors included his widow, Dorothy; a son, Ronald, of Combes, Texas; two grandsons and a brother, the Rev. Eldrede J. Jarman of Pompano Beach, Florida. Funeral services were held Monday; burial was in West Batavia Cemetery.

WANTED: BABYSITTERS

Persons available to babysit are being sought by the Guest Office. Babysitters are needed throughout the year. The Guest Office maintains a roster of people providing this service. To sign up, or for more information, contact the Guest Office, CL-1W/Ext. 3440.

HOUSE SITTERS SOUGHT

The Guest Office is seeking two house sitters. One is needed July 28 - August 20 (with two extra weeks possible); a second is sought to work August 6 - 27. To apply, contact the Guest Office, CL-1W/Ext. 3440.



...The 100-member Bofors Symphonic Band entourage of Karlskoga, Sweden, toured Fermilab June 21. The band visited Karlskoga's sister city, Wheaton, June 20-23. Harold Johnstad (above left), a native of Norway and an experimenter from Northeastern University (E-439/Meson), translated the Public Information Office's self-guided tour brochure and recorded the Central Laboratory 15th floor slide program in Swedish for the visitors. The group also enjoyed a picnic lunch at the Village.