

The Village Trier



fermi national accelerator laboratory

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LAYING CABLE AT A 5,000-FOOT-PER-DAY CLIP!

Jan Ryk was skeptical. The project manager on a main ring feeder improvement program had just heard an installation contractor claim he could lay electrical cable at the rate of 5,000 feet a day. Jan became a believer.

The second half of a MR feeder improvement was completed recently. The object of this part of the project was to install additional main ring feeders to service building F3 and E1. Two new tri-cable feeders, with some reconnection of four existing feeders, will increase the capacity and improve the reliability of the western half of the main ring pulsed power system.

Each feeder consists of three cables. A cable is comprised of an aluminum conductor, covered with a layer of insulation rated for 15,000-volt operation. On the outside of the insulation is a helical layer of copper wire which forms the neutral conductor.

Diameter of cable is approximately 1-1/4 inches. The total length of the cable installed under this project was about 45,000 feet. The cable arrived at the Laboratory in June, 1977, on nine reels. Each reel contained about 5,000 feet of cable and weighed about 7,500 lbs.

The cable was buried 3 feet underground, along the inside perimeter of the main ring cooling pond. In the operation, a motorized trencher was used to dig a hole 3-1/2 foot deep and 10" wide. Behind the trencher came a sand dispenser that deposited a six-inch layer of sand in the trench bottom.

Next, cable was laid on the sand bed. Special reel-transport equipment managed the cable reels. "The operation was quite simple," Ryk said. "No cranes were needed for reel handling. The reel-transporter was simply tipped up to accommodate the reel axle and tipped down to pick up the reel.

"A tractor was used to pull the reel-transporter. Since the ground was dry, the reel transporter was pulled along straddling the trench. This made the cable installation a simple operation with a minimum of stress on the cable."

(Continued on Page 2)



...*"Super-trencher"* cuts hole for cable...



...*Mobile transporter* lays cable on sand bed...



...*Applying sand overlay* before backfill...

LAYING CABLE (Continued)

After three cables had been laid in each trench, the sand dispenser put another 6-inch layer of sand on top of the cables. Planks of wolmanized weather treated wood, 1"x 6"x12', were then put on top of the sand followed by back fill. The "sand sandwich" protects the cable against damage by rocks in the soil.

Using the techniques described above it was possible to install a 5,000 ft. stretch of feeder in one 8 hour day--including trenching, cable installation, sand and planks. The back filling took another 8 hour day.

Besides Ryk, other Laboratory personnel participating were: Russ Huson, Accelerator Division head; Gerry Tool, head-accelerator electrical support section; Ed Kessler, Accelerator E/E; Bill Riches, plant support; and Ken Sceper, plant utilities.

Phase I of the improvement carried out in March consisted of laying three 5,000-foot cables by helicopter along the eastern perimeter in the ring's inner ditch and connecting inner lake.

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GROUNDSKEEPERS AID DEER

Fermilab groundskeepers came to the aid of a disabled deer being attacked by two dogs in a Main Ring pond August 9.

Bob Hall (Grounds) said the incident began about 10 a.m. Tom Rathbun (Internal/Target), a technician at the C-0 service building on Main Ring road, spotted the dogs and deer splashing along the MR's eastern perimeter. The deer was described as an eight-point buck weighing about 180 pounds. The animal seemed to be one spotted a year ago, suffering from a broken right rear leg, said groundskeeper Bob Hall.

Hall and his crew--Vic Kerkman, Don Hanson and Jim Kalina--were called to assist last week. Armed with a tranquilizer gun, they launched a boat between the C-4 and D-0 service buildings and set off to subdue the dogs. One came to the group without incident when called; the other fled. The deer, favoring his hindquarter, disappeared into the swamp.

Hall said the captured dog was turned over to the DuPage County Rabies Control Unit.

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C.O.D. OFFERS FALL COURSES ON SITE

College of DuPage will offer five extension classes at Fermilab during the fall and winter quarters. Four are non-credit, one will provide degree credit. They are:

BEGINNING FRENCH I, Tuesday, 7-9 p.m. (Sept. 20 - Nov. 15) CL-1W. This course is designed for the person with no background in French. Most course work is centered on conversational dialogues which cover the basic grammatical structures. \$23.

SIMPLE WATERCOLOR FOR THE TRAVELER, Thurs., 7-9 p.m. (Sept. 22 - Oct. 27), CL-1W. Students will learn how to transfer new understanding to painting of watercolors from travel slides. \$20.

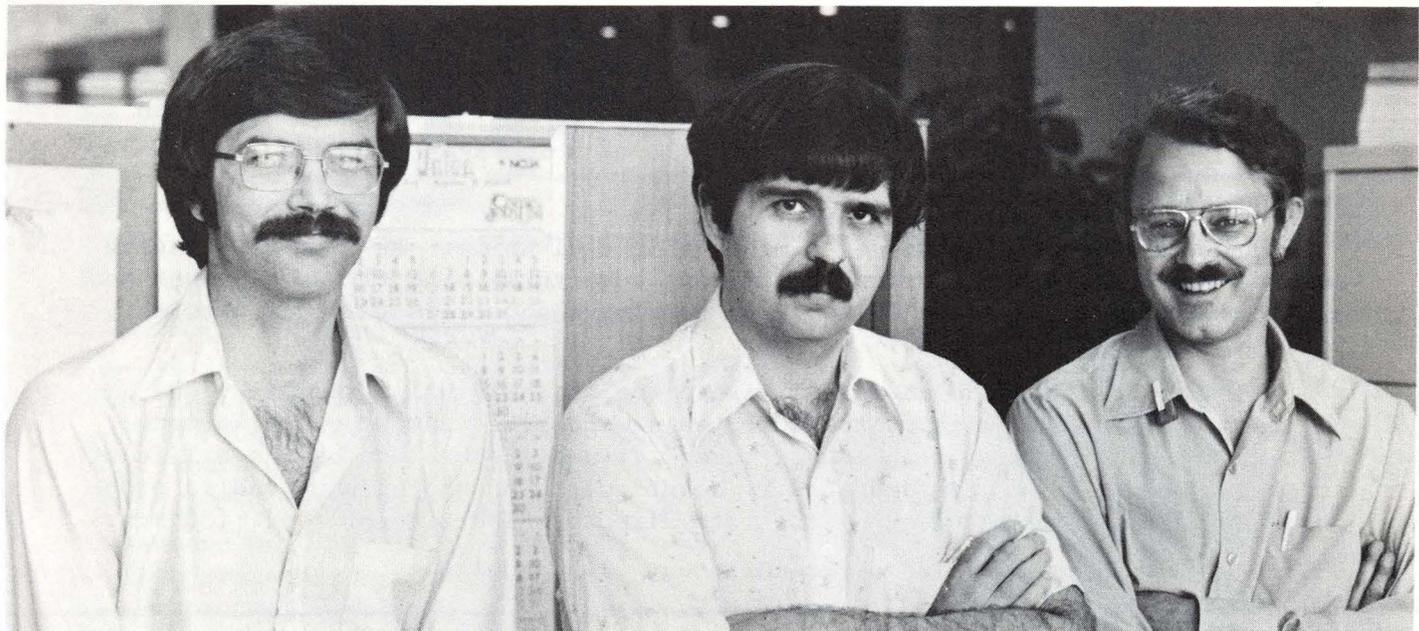
CONVERSATIONAL SPANISH, Tues., 7-9 p.m. (Sept. 20 - Nov. 15), Black Hole. For the person with no background in academic Spanish; will help one understand and speak the language. \$28.

TRIMNASTICS, Tues., 6-8 p.m. (Sept. 20 - Nov. 15), 16 Potawatomi. Calisthenics designed to improve the figure and take off inches. Session include conditioning exercises designed to solve particular body problems and relaxation exercises to reduce tension. \$23.

TENNIS I - PHYSICAL EDUCATION, 156B; Mon., Wed., 5:30 - 7:20 p.m. (Sept. 26 - Nov. 3), Tennis courts. Learning and performance of fundamental psychomotor skills and techniques of tennis. \$11.50, 1 credit hour.

For registration information contact Helen Ecker, CL-1W, Ext. 3126.

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...New Proton Department administrators L-R: K.C. Stanfield, B.B. Cox and C. T. Murphy...

PROTON APPOINTMENTS ANNOUNCED

Fermilab has made several changes in the administration of the Proton Department which became effective on August 15. C. Thornton Murphy become head of the Proton Department; he has been associate head since March, 1976.

Kenneth C. Stanfield has been named Associate Head. Bradley B. Cox, who has been Proton Department head since March, 1976, moves to head of superconducting group in the Proton Department in charge of construction of the new superconducting High Intensity Beam in the Proton Area.

Murphy has been at Fermilab since 1973. He was an associate professor at Carnegie Mellon University from 1968 to 1973, following four years as an assistant professor of physics at the University of Michigan. He has been active in several bubble chamber experiments at the Laboratory and served as chairman of the bubble chamber users committee at Fermilab. He has also been a member of the E-95 collaboration, studying wide angle gamma ray correlations in the Proton Laboratory.

Murphy received his A.B. from Princeton University. His M.A. and Ph.D. were earned at the University of Wisconsin. Thornton and his wife Barbara live with their four children in Warrenville.

Stanfield commuted to Fermilab to work as an experimenter during three of the six years that he was an assistant professor of physics at Purdue University. He also did research at the ZGS at the Argonne National Laboratory. He joined the Fermilab staff in March, 1977.

Stanfield did his undergraduate study at the University of Texas, then went to Harvard University, completing his A.M. in 1967 and Ph.D. in 1969. He was also at the University of Michigan as a research associate from 1969 to 1971. Ken and Carolyn live in Downers Grove with their son John, age 8.

FERMILAB FAMILY PICNIC

Village Recreation Area

11 a.m. - 5 p.m.

Sunday, August 21

Fermilab, visiting experimenters, ERDA, Mutual Management and Management Safeguards, Inc., employees are invited to the annual NALREC family picnic. Food, rides, games for adults and children, door prizes and other attractions are on the agenda. Also, clowns, Fermilab Fire Department demonstration and music for teens noon-3:30 p.m. in the Village Barn. **VOLUNTEER HELP NEEDED!** For information, contact Sherry Nila on Ext. 3585.

THE INTER/NATIONAL FILM SOCIETY

presents

CHILDREN'S DOUBLE FEATURE

"Dumbo"

"The Red Balloon"

Auditorium

10 a.m.

Saturday, August 20, 1977

Dumbo is one of Walt Disney's most delightful tales. It is a captivating animated circus story featuring the amazing adventures of a flying elephant and a masterful mouse. A story filled with happiness and tears that has been enjoyed by all ages. (64 min.)

The Red Balloon won an Academy Award for its original screenplay, and has been acclaimed throughout the world as a wonderful fantasy of childhood. A boy makes friends with a balloon, "tames" it and the balloon begins a life of its own. The film is distinguished by beautiful color photography and is probably the greatest achievement by the late director Albert Lamorisse. (30 min.)

Admission: 75¢ children, \$1.50 adults

A SECOND CHANCE

"Key to the Universe," a two-hour TV documentary featuring Fermilab, will be repeated on the national Public Broadcasting System. The science special will be aired again at 8 p.m. Thursday, Sept. 1 and 3 p.m., Sunday, Sept. 4 on Channel 11-WTTW, Chicago. Previous showings of the film in the Chicago area were offered in May. Fermilab scenes include aerial views, Central Laboratory and the 15' bubble chamber, and at several experiments.

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CENTRAL LABORATORY CLOSING ANNOUNCED

Gene Plant, Central Laboratory building manager, has announced that the building will be closed to visitors Sunday, Aug. 21. The closing will coincide with shutdown of selected Central Laboratory environmental systems for annual maintenance. Affected will be: air conditioning; electrical power; food service. Gene added that the maintenance schedule will continue Monday, Aug. 22, with shutdown of air conditioning and unavailability of chilled water. The program started Monday, Aug. 15, with temporary cutoff of hot water.

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F.A.S.T. CLASSES SIGNUPS DUE AUG. 26; INSTRUCTORS ANNOUNCED

Employees are reminded that Friday, Aug. 26, is the deadline to submit applications for three fall courses in Fermilab Applied Skills Training (FAST) program. Ruth Thorson Christ, training officer said classes are designed to strengthen basic skills of entry-level mechanical and electronics technicians. For information/application forms, call Ext. 3324.

She also announced staff people serving as instructors. Louis Kula (Proton) will teach Math I; Henry Van Leesten (Accelerator) will teach Shop Practices for Electrical and Electronics Technicians; and James Garvey (Accelerator) will teach Basic Electrical Controls for Mechanical Technicians.

Kula, a laboratory employee since 1970, is a member of the Proton engineering support group. Before coming to Fermilab he worked at the Boeing Co. and gained teaching experience as a parttime instructor at Loyola University, New Orleans.

Van Leesten is a technical specialist in the Accelerator's mechanical support group. A lifelong machinist and instrument maker, he came to Fermilab in 1969 from M.I.T.

Garvey previously was employed by United Airlines, joining the laboratory in 1970. He is a technical specialist in the booster group at Accelerator.

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PLAYGROUP REMINDER...Fall preschool playgroup is forming. First meeting will be Thursday, Aug. 25, at 7:30 p.m. in CL-2S. For information phone B. Jonckheere, 879-1283 or U. Baker, 231-0339.