

# FERMILAB NEWS

 Fermi National Accelerator Laboratory

Operated by Universities Research Association Inc.  
Under Contract with the United States Department of Energy

Vol. 1 No. 26

November 2, 1978

## COMPUTING DEPARTMENT BEGINS EXPANSION

A \$12 million Computing Department expansion got underway last week.

Al Brenner, department head, said the first of two hardware deliveries took place for a new facility that will quadruple Fermilab's computing capability.

Three new Control Data Corp. Cyber 175 computer systems will replace three CDC 6000 computers installed between 1973 and 1976. New equipment will include 46 disks and 31 tape drives and increase from one billion to 10 billion "bytes" of disk storage space. (A byte is a character or digit of information.)

Howard Watts, manager of computer operations, said the old computer system was operating at full capacity. "We needed increased computing speed, storage capacity and faster disk access in order to satisfy data processing requirements of Fermilab's 300 researchers," he said.

First-phase delivery comprised two computers and part of the disk and tape subsystems. The computers, shipped in separate moving vans, were hoisted by a power crane from ground level to the eighth floor west wing of the Central Laboratory and placed in the computer room via a window. Installation and checkout will take about two weeks.

Delivery of the third computer and additional disks and tapes is scheduled for May, 1979, with operation in June.

"During the period November through April," Watts said, "operations will be spread very thin and work in the computer room by CDC technicians, electricians and others will cause delays that cannot be predicted. We will do our best to give reasonable service during this period. However, everyone will have to be as patient as possible and help where they can."

(continued on Page 2)



...Crane lifts computer to CL-8W...



...Movers unload one of two new Fermilab computers from van...

## COMPUTER DEPARTMENT EXPANSION (CONT.)

To make room on CL-8W for the new facility, an IBM 360/50 computer was re-located on the eighth floor. Also, terminals were relocated on eight or moved to the seventh floor as were card readers and printers.

Production work on the new equipment is to begin in November. This will be done by connecting the computers to the printers and card readers on the seventh floor. The 6600s will be deactivated as soon as the new hardware is confirmed stable.

The transition will include a conversion from the current NOS/BE operating system to the NOS system. The conversion will be conducted from mid-November through April. In the interim, one of the two new computers and half of the peripherals will run the NOS/BE system and the other new equipment will run the NOS system.

After the third new computer and software are operating, the three machines will be connected and run under the NOS system.

Users will be moved from the old system to the new literally overnight. The Cyber 175 system will be loaded with a copy of all permanent files from the old system. The Computing Department will move the user community entirely to the new facility at one time.

The Cyber 175 will appear as a fast 6000 to both the operating system and user jobs. Also, the 175 offers greater reliability due to a single bit error correcting main memory and integrated circuits comprising peripheral processor units.

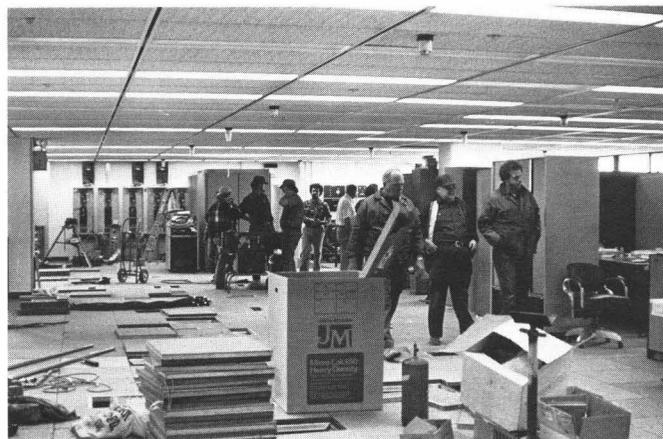
All the new tape drives are "high performance" rated. Most are capable of reading and writing tapes at 200 inches per second.

In addition to computers, disks and tape drives, CDC will deliver additional printers and major communications gear to support remote job entry and interactive terminals.

The new facility has been planned since 1970. The procurement process began in 1976 with budget proposals being submitted to the Department of Energy. Computing Department head Brenner designed the expansion with input from the user community; Watts, project manager, and a team



...Workman guides computer through Central Laboratory window...



...Eighth floor computer room undergoing remodeling...

of assistants launched the upgrade by inviting proposals from computer vendors.

Five mainframe and three peripherals manufacturers competed for the new facility. After a two-year effort involving financing, specification of system requirements and analysis of proposals received, Fermilab awarded the contract to CDC on July 5, 1978.

During the next few months, Watts said, additional contracts will be let for a number of other major pieces of equipment. They will include microfiche hardware, additional graphics devices and a semi-archival mass storage device.

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CALL PAUL AT EXT. 3354

Ombudsman Paul Brindza (Energy Doubler) reports the FERMINews published an incorrect phone number for him recently. He can be reached at Ext. 3354.

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CLASSIFIED ADS - For distribution with THE FERMINES of November 2, 1978

- FOR SALE: 1976 Pinto, 37,000, Auto, AM/FM Radio, Rear Defog., Good Condition - Call Jack Smith - Ext. 4455.
- FOR SALE: 1973 Honda 750 c.c. 14,000 miles - many extras - Call Jack Smith - Ext. 4455.
- FOR SALE: Ford Gran Torino 1972. Very good condition - sports wheels - new tires in September - transmission recently fixed - price \$1080 - Call A. Fridman, Argonne - Phone: 972-6301 or 76-26301
- FOR SALE: 1978 Buick Regal - only 4500 miles - V-6, A/T Full Poer - A/C - vinyl top - positraction, rust proofed - \$6500 - Call Ext. 3501.
- FOR SALE: Woodhave Lakes: Offers boating, fishing, hiking, swimming, bike and snowmobile trails, sledding and ice skating. Both teen and adult recreation centers. 55 x 110 camp site - \$4500 - call Chuck 879-1925 or 879-2440.
- FOR SALE: COTTAGE: 11 miles east of Wisconsin Dells, 1 acre land, 100 ft. lake frontage, 3 bedrooms, bathroom, wooded lot. For information call Chuck 879-2440 or 879-1925.
- FOR SALE: Mattress, full size, very clean - make offer - call Curtis - 879-2974 or Ext. 4411.
- FOR SALE: Gibson "Les Paul" Bass Guitar - beautiful instrument w/case - \$400.00 - Call Lyle - Ext. 4666 or 365-2629.
- FOR SALE: '75 YAMAHA YZ dirt bike, excellent condition - used one season then stored. \$550.00 - Call Jay 897-5195 evenings.
- FOR SALE: Fender "Bassman 50" Guitar amplifier - 50 watt head w/2-15" speakers in cabinet w/covers - \$300.00 - call Lyle - Ext. 4666 or 365-2629.
- FOR SALE: 1 pr. "Hahnenkamm" Tyrolla Bindings - hickory-ash - plastic laminated - 6 ft. long; 1 pr. "Zermatt" blue ice bindings - 6'6" long - both made in Austria - \$25.00/pr. - Call J. Miller - Ext. 3452.
- FOR SALE: Motor Home - 1973 Eldorado on Dodge Chassis - 360 V8 - 21,000 miles - 23-1/2 feet - fully self-contained - roof air-dual tanks - canopy - sleeps 8 - new tires - CB and TV antenna - \$7900 - call Dean Lee - Ext. 3148 or 279-8898.
- LOST: 3 quart teflon-lined dutch oven pan - please return to Maria Martinez (SS/Tenants) or call Erene Garcia - Ext. 3641.
- LOST: House Plans - 4 sets of Blueprints (4 pages each) - please call Joni - Ext. 4000 or 897-7777.
- WANTED: A ride or a rider(s) or someone to trade driving from Sandwich - 8 a.m. to 4:30 p.m. - phone 786-8319.
- WANTED: Colored TV; Stereo, humidifier - call Y. Kumada - Ext. 4246.
- FOR SALE: Black Walnut logs - 12" dia., 8 ft. long, very reasonable - call Ext. 3394.

CLASSIFIED ADS (CONTINUED)

- FOR SALE: 1969 Mercury Monterey, \$300, 4-door sedan, 89K miles, V8 automatic, ps, pb, pw, AC, stereo, tow-bar - call Phil at 840-3297 or 420-2686.
- FOR SALE: Sears "Super" water softener - 9 years of - most moving parts have been recently replaced - MAKE OFFER - call J. Lach - Ext. 4103.
- FOR SALE: Mattresses and Box Springs; one double long (Sealy Post.) 2 twins - good condition - MAKE OFFER - call J. Appel at 469-6025 evenings.
- FOR SALE: Porta-Cabin '72 Pop up camping trailer - sleeps 8 - ice-box - stove, sink, electric brakes, stored inside - \$1300 - call 393-2970.
- WANTED: Dodge passenger window Van - call Barb on Ext. 4312 or 232-8024.
- FOR SALE: VW Beetle - 1969 - new engine, starter, brakes, etc. - excellent running condition - good body (new paint) - call 969-3403 after 9:00 - \$650.00.
- FOR SALE: White French Rabbit Coat - Ladies small - worn only a few times - original price - \$250 - asking \$150. call July Ward, Ext. 3211.
- FOR SALE: Log Ranch Home - 5 years old - 3 bedrooms, 2 bath, 2 car-garage, AC and humidifier, completely carpeted, anderson windows, cathedral ceilings, dishwasher, garbage disposal - 3/4 acre landscaped lot - Oswego area - \$78,000 - call Steve Barath - Ext. 3555 or 554-9167.
- FOR SALE: Christmas Wreaths - Boy Scout Troop 106. Balsm 18" - \$5.00; 24" - \$5.50; 36" - \$9.65; 48" - \$15.90; 60" - \$23.90; 25 ft. rope - \$8.00. Balsm & Pine - 18" - \$5.60; 24" - \$6.50; 36" - \$10.90; 48" - \$17.85; 60" - \$26.00; 25 ft. B&P Rope - \$10.35; 25 ft. pine rope - \$11.00 - delivery by Dec. 11 - call John Grimson - Ext. 3698 or 357-1436.

### 1978 FERMILAB CHARITY DRIVE OPENS

Payroll deduction forms were distributed last week in Fermilab's sixth annual charity drive. John McCook, Associate Director for Administration, announced the plan. He said it provides the opportunity for an employee to support up to three charities of one's choice through weekly or monthly payroll deductions.

Convenient deductions may be made to most IRS-approved groups or agencies.

Fermilab offers the payroll deduction for charity programs so that employees can give to their favorite charities without feeling the effect too severely in any one pay period.

Charities and amounts designated to each should be noted on the pledge form. A minimum of \$12 annually must be pledged to take advantage of the payroll deduction method. Completed pledge forms are due Dec. 1 in the payroll office. Deductions, tax deductible, will begin in the first pay period of January, 1979.

More information is available from the Personnel Office, Ext. 3324.

### NEUTRONS TO SAVE MORE CANCER VICTIMS

Neutron radiation therapy is expected to save significant numbers of cancer patients in coming years, a cancer researcher said at Fermilab.

Dr. William Powers made the prediction in a meeting sponsored by Fermilab Cancer Therapy Facility (CTF). The session commemorated the CTF's second anniversary of patient treatments with neutron therapy.

Opened in September, 1976, it evolved from studies on laboratory animals and patients who have undergone neutron therapy here, elsewhere in the United States, and across the world.

The neutron therapy, offered as an experimental program at Fermilab and at three other centers in the United States, tests the effectiveness of neutron beams by comparing them with conventional radiation in the management of selected tumors.

Dr. Powers is director of the Detroit Medical Center central radiation therapy facility and chairman of the department of radiation oncology at the Wayne State University School of Medicine.

"In 1978," Dr. Powers said, "out of the 700,000 new cancer patients expected, only one third will survive. Our goal, using neutron radiation therapy, is to save another 100,000 lives ... a gain of almost 50 percent.

"Patients could be saved without removal of important body structures and with expectation of preservation of normal functions and activity.

"Many of the patients who die because



...Cancer therapy authorities meeting at Fermilab included (L-R): R. Garces, MD; W. Powers, MD; R. Perez-Tamayo, MD; L. Cohen, MD, and W. Brand, MD...

their tumor persists locally and spreads throughout their body might be candidates for neutron radiation therapy. In some patients, neutron therapy with effective chemotherapy programs has a chance of controlling the wide-spread disease. As chemotherapy techniques improve, dependence on neutron radiation therapy to control the local and regional mass of tumors will increase."

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### FREE DIABETES SCREENING TESTS

National Diabetes Detection Week is Nov. 5-11. Fermilab employees and visitors are invited to take free tests for diabetes at Mercy Center Hospital and Copley Memorial Hospital, both in Aurora.

Test sessions will include Sunday, Nov. 5, from 9 to 11 a.m. and Saturday, Nov. 11 from 9 to 11 a.m. Both hospitals will take appointments for screenings through Friday (Nov. 3).

Fermilab Music Club Presents  
CHILDREN'S DAY AT THE CHICAGO ICE FOLLIES

2:30-5:30 p.m.

Saturday, Nov. 18, 1978

Chicago Stadium

Employee and visitor children, ages 5 to 15, are invited to a bus excursion to the Chicago Ice Follies "Children's Day" on Saturday, Nov. 18. Friday (Nov. 3) is the deadline to sign up. Bus tickets will be \$3 per person. The bus will leave the Central Laboratory at 1 p.m. For reservations or information, contact: Joyce Curry, Ext. 3591; Marilyn Bailey, Ext. 3282; Johnny Geraldts, Ext. 3259; Larry Tate, Ext. 3883; Theo Gordon, Ext. 4455; or Mike Armstrong, Ext. 3014.

FERMILAB CHORUS FORMING: SINGERS WANTED

A Fermilab employee-visitor choral group is forming for the yule season.

The first of 10 rehearsals is set for today (Nov. 2) from noon to 1 p.m. in the auditorium. Jan Ryk (Accelerator) is group coordinator. He said rehearsals will be held weekly with one or two noontime performances planned for the atrium of the Central Laboratory before Christmas.

Traditional yule carols and some less familiar numbers will be presented. No prior singing experience is required; no auditions will be held. All interested Fermilab people are invited to attend the rehearsals. For more information, contact Jan Ryk at Ext. 3965/Page 168.

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...About 45 librarians representing Department of Energy facilities nationwide toured Fermilab recently. Roger Thompson, Fermilab librarian, was their host and tour guide. The participants were attending a three-day Eastern Regional workshop at Argonne National Laboratory...

ANNUAL BLINDSKILLS SALE TODAY

Fermilab will host today an annual sale of products conducted by the Blindskills Association. The sale will be from 8 a.m. to 2 p.m. in the cafeteria. Blindskills products are made by blind industrial wage earners employed in non-profit workshops. The association is affiliated with the Chicago Lighthouse for the Blind and National Industries for the Blind.

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MANAGE YOUR MONEY

"Personal Investments" and "Estate Planning" are the titles of free, public seminars to be sponsored by Argonne Credit Union.

ACU membership is not necessary to attend. Both seminars are set for 7 p.m. in Building 362 Auditorium at Argonne National Laboratory. "Personal Investments" will be held Thursday, Nov. 9 and "Estate Planning" will be presented Thursday, Nov. 16.

The investments program will cover U.S. Treasury bills, government bonds, municipal bonds, IRA's, insurance annuities, stocks, commercial bonds and real estate.

Wills, joint ownership, trusts and inheritance taxes will be among estate planning topics to be discussed.

Spouses of employees and visitors are welcome to attend. Reservations are requested to help plan refreshments and hand-out materials. Reservations due 5 p.m. the day before each seminar, may be made by calling the ACU service office at Fermilab on Ext. 3293.

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