

FermiNews

FERMI NATIONAL ACCELERATOR LABORATORY

February 4, 1982

EMERGENCY TEAM BATTLES STORMS

By Phyllis Gibson

Record-breaking temperatures of -26° , accompanied by arctic winds producing a windchill factor of -80° , severely tested Fermilab's emergency support services the weekend of January 9-10. Dissatisfied, Mother Nature gave an encore the following weekend.

Although the weekend of January 16-17 was slightly warmer (imperceptible to most observers), Fermilab escaped similar emergencies thanks to a coordinated work team of support and emergency services plus a communications command post, mobilized Friday, January 15, by John Paulk, Site Services.

"Freeze-up at ..." was a frequent phrase heard by dispatchers the first weekend. In fact, 16 freeze-ups wielded havoc in several Village homes, Wilson Hall, and many temperature-sensitive areas.

According to Rudy Dorner, Emergency Services, "The organization and coordination put us, not the weather, in charge!" Learning that the reporter was familiar with Murphy's Law, Dorner added, "Murphy was an optimist."

"We were determined to carry on the main function of the Laboratory--physics. Sometimes, people, including ourselves, forget that support services contribute to physics, but the severity of the weather taught us that we do."

According to Don Fichtel, Work Central, the weekend of January 9-10 was a fiasco. "Normally there are two duty people, a mechanic and an electrician, in Plant Maintenance and Operations, but the calls were far too numerous for them. Consequently, freeze-ups, flooded crawl spaces, and other problems occurred. But

the second weekend, amounted to a joint effort between Housing, Vehicle Maintenance, Plant Management and Operations, Roads and Grounds, Work Central, Dispatch, Security, and the Fire Department. Our people, as did other departments, made tours of all the buildings in our area of responsibility, and found a few furnaces out but got them back on line before anything froze up. We had 3 freeze-ups the second weekend as opposed to 16 the first weekend. Also, we left the water running in every building to keep the water lines from freezing."

"The experience," said Bill Riches, Plant Management, "Gave us a chance to put emergency procedures into practice which previously had been put only on paper. The Laboratory has always had emergency procedures but few occasions to test them. Meeting recent challenges better

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Work Central's Ivan Huffmaster, Gerry Reno, Bill Byrd, and Don Tokarz replace a water line at Site 29 caused by arctic weather Jan. 10.



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prepared Support Services to meet major disasters such as a flood or a tornado."

Riches attributes doubling weekend personnel, having foremen man a special command post which freed on-call duty officers, supervisors, and himself to respond to unusual occurrences, and patrolling buildings throughout the site to record temperatures as the main reasons many potential disasters were circumvented.

Consequently, there were no emergencies such as occurred January 9-10 in the Neon Compressor Building where the sprinkler system froze, burst, and sprayed water all over. In turn this caused it to trip off the circuit breaker which feeds power to the facility; everything was coated with two to four inches of ice.

A fiberglass panel blew off the Meson Detector Building, leaving a 4 ft by 8 ft hole. The temperature inside the building quickly plummeted below zero. Certain cooling supply water systems were endangered by freezing. Despite arctic

winds, John Paulk and Dale Miller of Meson scaled the building superstructure, carrying lumber and plywood to temporarily seal it.

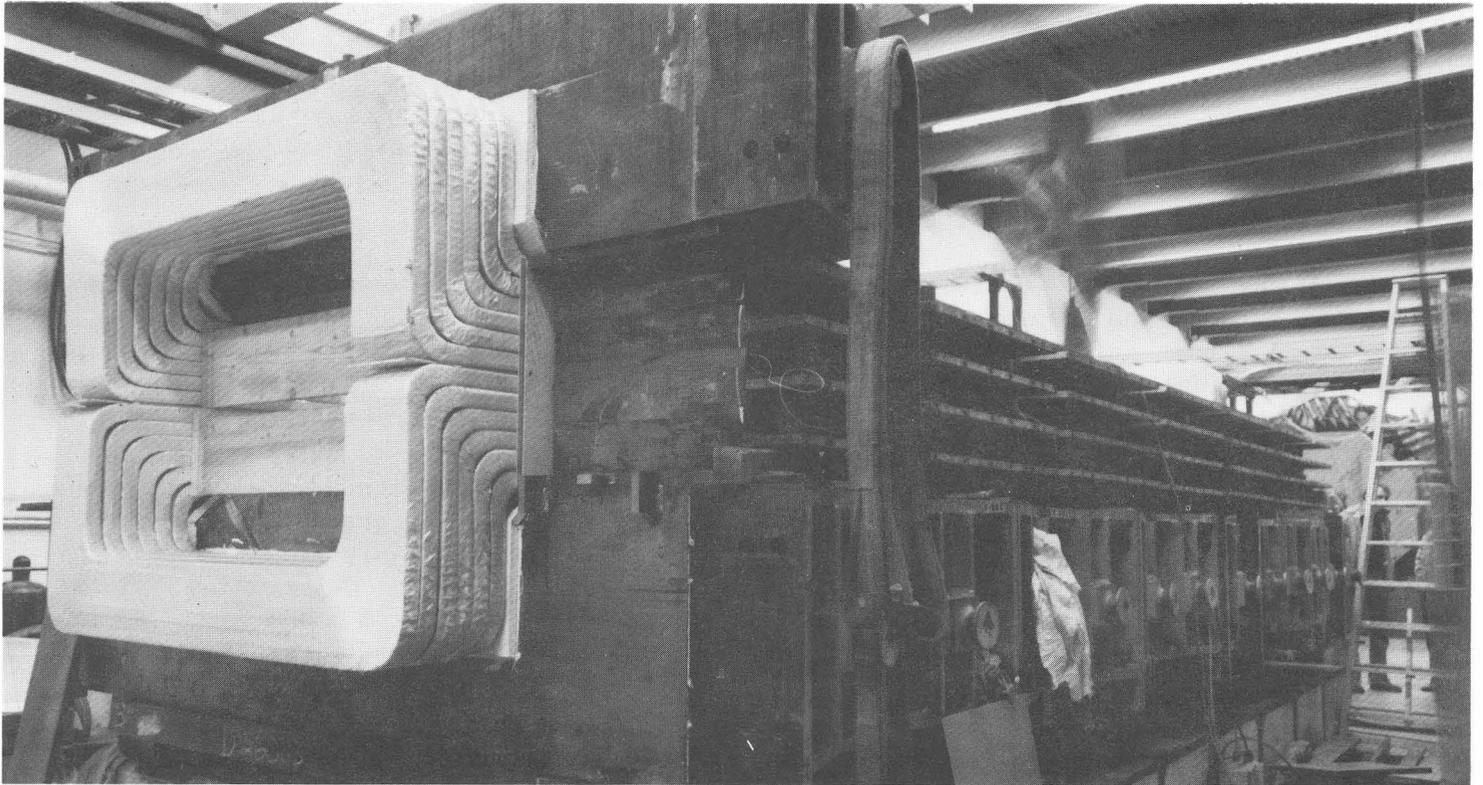
"I couldn't begin to name everyone who worked overtime to remedy the unusual problems, not only during weekends, but for the past two weeks," John Paulk said. "The reduction of emergencies is the result of good teamwork; no one worried about merely his area of responsibility--everyone pitched in to solve problems as they arose. Bob Hall's Grounds people kept roads and parking lots free of drifts, then pumped out crawl spaces flooded with 16 inches of water. John Barry made certain hot food was served around the clock. Vehicle Services made sure employees' cars would start."

George Davidson, Vehicle Service, expressed a feeling echoed by others. "These past two weekends are reminiscent of the early days of the Laboratory when we were smaller and everyone knew one another and worked together."



Grounds Dept. personnel who battled a -80° wind chill to keep roads and parking lots clear. They include (front row, left to right) Kenny Parker, Don Hanson, Larry Thomas, Cornelius Chandler, Vic Kerkman, Rich Kujath, Del Rodriguez and (back row, left to right) Danny Garza, Oscar Trevino, and Toby Meyer.

FERMILAB'S LARGEST MAGNET READY FOR E-615



The Mass Selection Magnet, designed for E-615, is shown as it appeared during two-thirds completion. It is the largest magnet ever installed at Fermilab.

The largest magnet ever to be completely fabricated and assembled at Fermilab was recently installed in Proton West. The magnet was built for Experiment 615, a University of Chicago, Iowa State University, Princeton University, and Fermilab collaboration.

The Mass Selection Magnet was designed by Frank Shoemaker of Princeton and Ed La Vallie of the Proton Department. It is the first element in the experiment downstream of the experimental target. It is designed to absorb most of the low energy hadrons produced in the target, as well as low energy muon pairs, so that experimenters may select and measure only muon pairs of high invariant mass.

The entire Proton Mechanical Group helped in the fabrication and commissioning. The coils were wound under the supervision of Jack Jagger and involved the efforts of the Magnet Facility. The Proton Electrical/Instrumentation group, headed by Age Visser, checked the magnet coils during manufacture to insure that each met specifications.

The magnet consists of 12 coils. Each magnet coil contains two layers, with seven turns per layer. The Zero Gradient Synchrotron (ZGS) from Argonne provided the copper for the coil as well as the iron for the magnet. The completed magnet is 15 ft long, 7 ft high, and 12 ft wide, and weighs about 400 tons. The magnet aperture, which will be filled with beryllium and graphite

for filtering particles, is tapered vertically and horizontally with a magnetic field strength varying from 24 kilogauss to about 7 kilogauss at 2100 amperes.

The magnet was assembled under Ed La Vallie's direction, with help from Tom Prosapio and T&M contractors. Steel from the ZGS was sent to the Proton West Experimental Hall and assembled in place as the coils were being completed at the Magnet Facility. Ed Mottys did the surveying work, and Fred Rittgarn supervised the electrical installation.

Bob Innes, Walt Jaskierny, and Rick Moore of the Proton Electrical/Instrumentation group were responsible for the electrical work.

URA OFFERS SERVICES TO EMPLOYEES' CHILDREN

The Universities Research Association (URA) will award a minimum of 15 scholarships to full-time employees' children who are currently high school seniors and who will begin a four-year college degree program next fall. Selection will be based on ACT scores.

The maximum amount will be \$2,000 for tuition and fees and will be renewable if the student progresses in good academic standing. Applications are available in the Training Office, Wilson Hall 15E, or call ext. 4367. They are due March 1.

Also, the URA Board of Trustees has agreed to expand the present Children's Center to include infants and toddlers. For an application call Joan Bjorken, ext. 3440, Cynthia Samazma-Reay, 3082, or write to Mail Station 125. Cost will be \$73 per week for full-time care.

PLANETARY RINGS TALK FEB. 10

Scott Tremaine, Massachusetts Institute of Technology, will present "The Dynamics of Planetary Rings" at the Physics Colloquium February 10 in Ramsey Auditorium at 4 p.m.

The ring systems around Saturn and Uranus exhibit a rich radial structure, including sharply defined gaps and edges, regular wave patterns, and isolated narrow ringlets. Tremaine will discuss the formation and evolution of these features with particular emphasis on the Voyager observations of Saturn's rings.

NO FEE FOR AMBULANCE TRIPS

Two ambulance services are available at the Laboratory for employees. One, operated by the Laboratory Fire Department, has a trained EMT on board and transports sick or injured employees to any area hospital where their physician is affiliated. There is no charge to employees for this service.

The other, Tri-City Ambulance, is manned by paramedics who transport the **critically** ill or injured to the hospital from which the paramedics are receiving medical direction (or to the one closest). In such cases the hospital choice is not the patient's. The Tri-City service is subject to charges which may be submitted under Fermilab's group insurance plan.

Fermilab is operated by Universities Research Association, Inc. under contract with the U. S. Department of Energy. Fermilab is published biweekly by the Publications Office, P. O. Box 500, Batavia, IL 60510, phone (312) 840-3278.

1982 TAX GUIDE

The 1982 US Master Tax Guide has been added to the library, Wilson Hall, third floor, to aid employees who wish to prepare their own income tax returns. Roger Thompson, Librarian, requests that the book be used only in the library but says it will save individuals not only the cost of hiring a tax expert but even the \$10 cost of purchasing the book.

MONTE CARLO PARTY TOMORROW

The Kuhn Barn will be transformed into a gambling casino tomorrow night for a NALREC "Monte Carlo" party. Black Jack tables, Beat the Dealer, Craps, Chuck Wheel, Over-Under, and Color Roulette will be featured. \$2 buys \$10,000 game money and one door prize ticket. Every \$5,000 turned in at the end of the evening will be worth one additional door prize ticket.

A social hour from 5:15 to 6:30 p.m. will open the evening. Hot snacks and games will begin at 6:30 with the "gambling" ending at 10 p.m.

For more information, contact Bob Shovan, ext. 4347; Pat Yost, 4365; or Ed La Vallie, 3138. No one under 18 will be admitted.

TOURNAMENTS TO START SOON

The Annual Fermilab Eight-Ball Pool Tournament will begin February 15 at the Users Center. Interested participants can sign up at the Users Center after 5 p.m. or with Helen McCulloch, Recreation Office, ext. 3126, from 8:30 a.m. to 4:30 p.m.

Fermilab's Ping Pong Tournament, Dart Tournament, and Shuffleboard Tournament will begin February 22. For information, contact Nora Cervantes, ext. 4562 after 5 p.m., or Helen McCulloch.

CLASSIFIED ADS TO BE DISTRIBUTED WITH FERMINES FEBRUARY 4, 1982

FOR SALE:

CARS: 1979 Oldsmobile Cutlass Saloon Brougham. 4-door, cream finish with tan interior, AM-FM stereo cassette radio, pwr. str., pwr. windows, pwr. door locks, 6-way pwr. seat, rear defrost, cruise control, tilt steering, rear air shocks, dual remote sport mirrors, 305 V-8, 4BBL engine, average 20 mpg, transmission newly overhauled. Asking \$5195. Call Homer Clover, ext. 3685.

1973 Ford LTD. Runs well; asking \$650. Call Steve Gourlay, ext. 3977.

1973 Ford F-250 Camper-Special Truck. Pwr. str., pwr. brakes, A/C, AT, AM/FM stereo radio, running boards, dual tanks and batteries (one new Die Hard), four new shocks, runs and looks great. \$1,600 firm. Call Don Yardley, ext. 4253 or 892-0491.

MISC.: Two like new snow tires. Driven about 1,000 miles, H78-15, mounted on balanced Ford Galaxie Wheel. \$45 each, 2 for \$85. Call Marv Warner, ext. 4430 or 653-7164.

The following items are for sale by Homer Clover ,ext. 3685, for the best offer and can be seen at 31 Shore Dr., Oswego.

-Redwood stained picnic table. \$150 value.

-Plastic molded sailboat w/alum. mast and boom. \$100 value.

-5 ft long car top carrier. \$45 value.

-Two burner Coleman gas stove with retractable feet. \$25 value.

-2 table top charcoal barbecuers. \$7.50 each value.

-White wall mount bathroom lavatory with faucet and pop-up drain. \$35 value.

-White toilet tank with all parts, two bolt attachment. \$30 value.

-Fujica instant load single 8 reflex zoom Z2 movie camera. \$200 value.

-Fujicascope M3 dual purpose 8mm (regular or super 8) movie projector. \$150 value.

-Panasonic 25 in. diag. model CT-2514 color television with modular chassis and plug circuit boards. \$250 value

Complete twin size bed with mattress and box spring. Fairly new, good condition. \$60. Call Michael Utes, ext. 3721 or 879-8365.

Kitchen Set. Round woodgrain formica table with brushed aluminum base, 4 black vinyl chairs, \$70; Sky kennel for small to medium-sized dog, \$25. Call Mark Leininger, ext. 4776 or 695-3263.

WANTED:

RIDE TO WORK NEEDED! Roy Jeffries and his guide dog, Trever, need a ride from 370 Spruce Street, Aurora, to the Laboratory one day each week. His work hours are flexible to adapt to almost any offer. Anyone interested and available should contact Roy in the Computing Department, WH8W near the elevators, or at ext. 3146.

BUYER! Two tickets available for the February 6, 1982 8 p.m. performance of the Chicago Symphony Orchestra, main floor, Margaret Hillis, conductor, featuring: The Chicago Symphony Chorus; Poulenc, Mass in G; Schoenberg, Friede auf Erden, Debussy, Trois Chansons; Ravel, Trois Chansons; Hindemith, Six Chansons; Mendelssohn, Die erste Walpurgisnacht. \$21 each, call Judy Ward, ext. 3211.

TIME MAGAZINES. The June 1, 1981 and November 2, 1981 issues of **Time Magazine**. Needed for reference as soon as possible. Call Peggie, ext. 3278.

LOST BOOKS. Please look on your shelves and desks to help find the following books for Frank Cole, ext. 3801:

-**Proceedings of the 1959 CERN Conference on Accelerators;**
Stratton-**Electromagnetic Theory;** Schiff-**Quantum Mechanics.**

PIANO. Walnut or mahogany baby grand piano; will pay \$25 finder fee to anyone who leads me to such a piano that I buy. Contact Mark Leininger, ext. 4776, page 392, or 695-3263.