

# FERMILAB NEWS

 Fermi National Accelerator Laboratory

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## IMPRESSIVE SUCCESSES FOR B-12

Although it nestles rather inconspicuously just off the Main Ring Road, the research and development laboratory at B-12-- otherwise known as the Awning-- can claim a number of important successes. For it is there that Fermilab's next accelerator-- the Energy Saver using superconducting magnets--is being meticulously evaluated.

The most recent success came when the scientists there, having assembled the superconducting magnet systems that make up the Energy Saver, ran at full power like the superconducting accelerator will run when it finally comes on line. Evaluated were the magnets (16 dipoles and 4 quadrupoles), the vacuum system, refrigerator system, power supplies and the quench protection system. The tests continued for four days straight at full current (4 kiloamperes), day and night, and at times unattended, although the systems were monitored in the Main Control Room.

The outcome? "Very successful," said an enthusiastic Karl Koepke, one of the physicists involved in the B-12 research and development effort. "The systems ran flawlessly." The string of magnets and their supporting systems also were run at constant current as they would be during colliding beam experiments. "We experienced no problems in operating the magnets up to four Tesla as a collider," said Koepke.

"We now know what has to be done to operate the system and can apply that knowledge in the tunnel." The A-sector of the tunnel, which has a string of superconducting magnets installed, already has benefited from the knowledge gained at B-12, Koepke pointed out.

The physicist also said, "Now that the feasibility of operating an extended string of Energy Saver magnets has been demonstrated, testing is continuing at B-12 to gain operating experience, accumulate operating time on the equipment and to bring more attention to refining the systems."

## A MESSAGE OF APPRECIATION FROM "BOB" WILSON

To My Friends at Fermilab,

May I try to express my gratitude to you for the overwhelming outpouring of sympathy and good wishes during my recent illness. That kind of reassurance of friendship and love has been not only a pleasant island in a sea of pain, but it has also been a factor in the "will to live" which helps to carry one through the kind of crises I have just experienced.

I was released from the hospital in time to join my family for Christmas. With a "new" heart overflowing with gratitude and affection, may I wish you all a Merry Christmas and a Happy New Year of health and continued success.

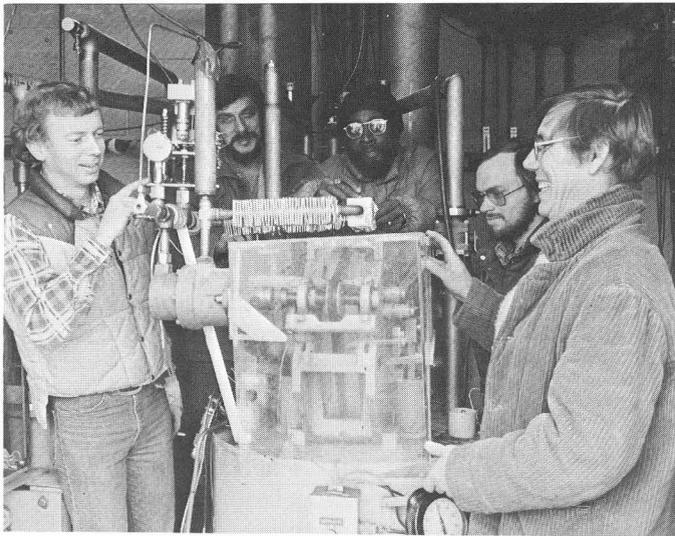
Bob Wilson



*From left, standing, Gerry Sorensen, Bob Flora and John Saarivirta. From left, sitting, Duane Voy and Gerry Tool. They designed and debugged the quench protection system. In this photograph, they are in the B-12 control room monitoring a quench. (More photographs on page 2.)*

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From left, Jeff Gannon, Mike Hentges, Mike Wilks, Ken Olesen and Dick Brazzale with the refrigerator wet expansion engine. Gannon and Wilks worked on the development and installation of the computer controls for the refrigerator. The other three men helped install and operate the refrigerator.



Hal Landers (standing, left) installed the copper electrical bus work. Leo Ray (center) and Mike Gould helped install the magnets. The men are installing a single phase relief valve.

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## MINERAL SPECIMENS ON EXHIBIT

A variety of common and rare minerals are now being exhibited at Fermilab in the Wilson Hall Art Gallery.

The nearly 45 specimens were loaned to Fermilab for this exhibit by Dr. Edward Olsen, head of the Mineral Department of the Field Museum of Natural History, Chicago. Some of the specimens are copper, galena, barite, sulfur, agate, hematite and fluorite as well as many others that include gold, amethyst, azurite and agate. One of the rarist of all minerals, found only in one place in California, is benitoite.

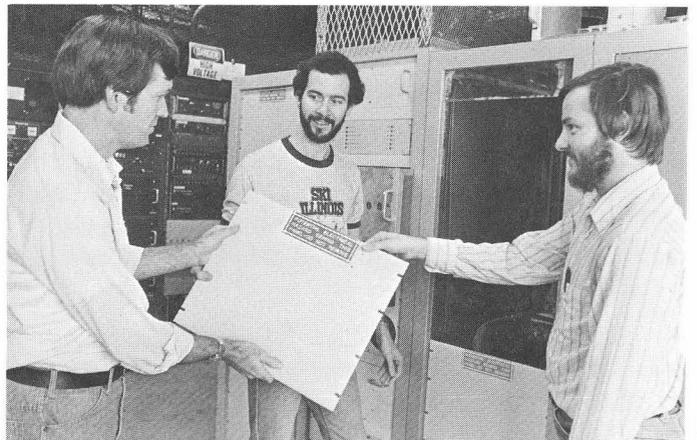
All of the minerals are in solid form of varying size and shape as well as color. The committee selected minerals for the exhibit this time because nature is an artist that creates many beautiful and exquisite wonders, yet at the same time found in these wonders are some of the most remarkable aspects of science, explained Sandra Cox, consultant to the committee. Minerals are an example of this. They are not manmade but are naturally occurring phenomena that bring together great beauty and the grandeur of science, she added.

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## NEXT COLLOQUIUM SPEAKER

Dr. Frank Sciulli of Fermilab and the California Institute of Technology will be the next Physics Colloquium speaker. His talk Jan. 7 will be: "A Review of Nucleon Structure Obtained from Lepton Scattering." It will begin at 4 p.m. in Wilson Hall auditorium.

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From left, Jack Lockwood, Bob Brooker and Steve Hays closing the dump switch cabinet.

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TEN YEARS OF SERVICE. 1--Barbara Perington, 2--LaDaune Trieweiler, 3--Walter Gorecki, 4--Gloria Beck, 5--Sherry Hickey, 6--Annette Bays, 7--Mary Brooks, 8--Hattie Van Lear, 9--Elsie Renaud, 10--Freddie McIntosh, 11--Jon Blomquist, 12--Ronald Olsen, 13--James Thompson, 14--John Colvin, 15--Gerald Johnson, 16--Ray Yarema, 17--William Byrd, 18--Larry Sauer, 19--Richard Douglass, 20--Gene Morel, 21--Wally Zimmerman, 22--John Korienek, 23--Mark Koenig, 24--Stanley

Orr, 25--Carl Pallaver, 26--Glen Johnson, 27--James Garvey, 28--Tony Rader, 29--George Mulholland, 30--Lee Brown, 31--Larry Vonasch, 32--Louis Kula, 33--Curtis Danner, 34--George Wayne Smith, 35--Clarence Rogers, 36--Danny Douglass, 37--Jack Smith, 38--John Stahl, 39--Walter Limbaugh, 40--Mike James, 41--James Hayes, 42--Shoroku Ohnuma, 43--Ed Kessler, 44--Phil Livdahl (representing the Director's Office), 45--Clarence Ed West, and 46--Ronald Haynes.

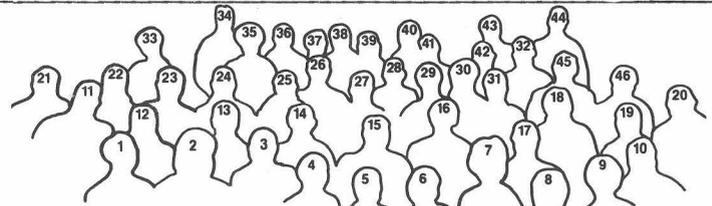
REMINDER ABOUT STOP SMOKING CLINIC

The deadline to sign up for the stop smoking clinic that will be held at Fermilab is Jan. 9.

Only if enough people register to attend will it be held. The clinic has tentatively been scheduled for Jan. 21, 22, 23 and 26 from 4 to 5 p.m. each of those days. To sign up, contact the Fermilab Medical Office, Ext. 3232. The clinic, patterned after the American Cancer Society workshop designed for the same purpose, will be led by David Jachim, Ph.D., a clinical psychologist with the Mental Health Clinic of the DuPage County Health Department.

Dorothy Poll, registered nurse at Fermilab who is coordinating the clinic, suggested participants stop by the Medical Office, WH1W, and pick up and read the pamphlet "The Quitter's Guide" published by the ACS before the clinic begins.

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LATEST CREF UNIT VALUES

The College Retirement Equities Fund (CREF) unit values so far this year are: January, \$45.37; February, \$44.59; March, \$40.33; April, \$41.82; May, \$43.70; June, \$44.81; July, \$47.84; August, \$48.04; September, \$48.75; and October, \$49.13.

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BIRTH

Heather Ann was born at Central DuPage Hospital Oct. 31 at 10 a.m. to Brian and Gigi Hendricks. The child, their first, weighed 7 pounds, 6 ounces, and was 19 inches long. Her dad is with the Operations Group, Main Control Room, Accelerator Division.

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SPECIAL NOTICE ABOUT REQUESTS  
FOR AUDIOVISUAL EQUIPMENT

Requests for the use of audiovisual equipment and assistance in setting the gear up should be directed to the Buildings Management Office, Ext. 3824, said Bud Stanley, buildings management head.

This approach will eliminate conflicts of schedules as well as bottlenecks and will help his office and the people who need the equipment develop a smooth and workable schedule. He urged that his staff members not be contacted directly about audiovisual equipment. They may be on an assignment and cannot answer their page or may have it turned off, Stanley explained. But by going through his office, these types of problems can be resolved.

Stanley also said his office deals only with audiovisual equipment--not with video gear or videotapes. In any emergency, someone who needs audiovisual equipment in a hurry can in most circumstances be accommodated. Any of the secretaries in the Buildings Management office can help a caller get in touch with the right expert.

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SPECIAL NOTICE ABOUT AUDITORIUM

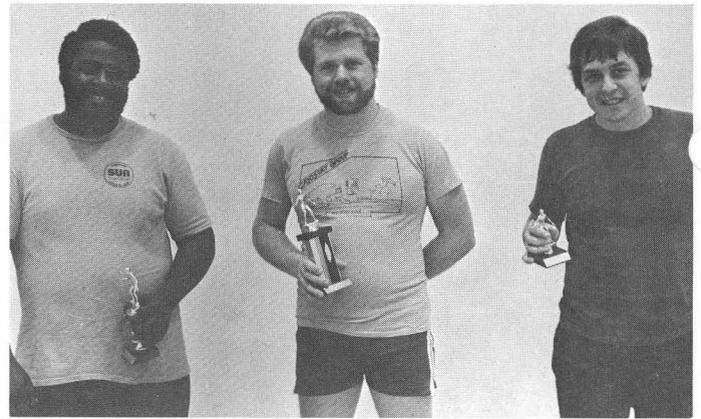
Access to Wilson Hall auditorium will be restricted Jan. 5-11. During that period, the stage maple floor will be cleaned, stained and sealed to preserve the wood strips and prevent them from further separating. A flat black finish will then be applied to reduce glare and to create the best possible surface for performances and lectures.

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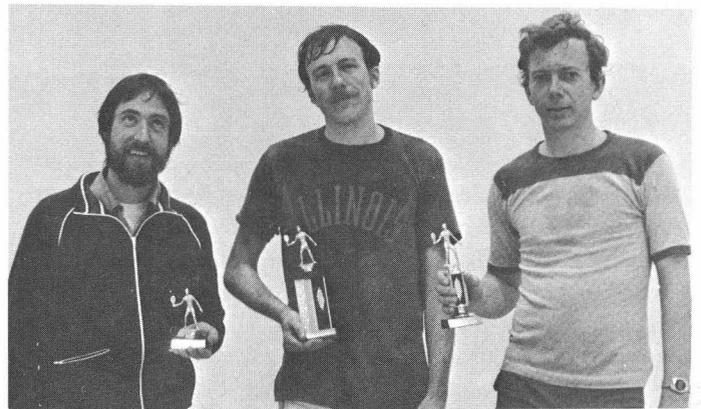
EMPLOYEES HELP VISITORS LEARN  
ABOUT FERMILAB

A number of Fermilab employees are sharing their knowledge about Fermilab with visitors and surrounding communities. Helping with tours during December 1980 were John Cumalat, Paul Czarapata, Deb Grobe, Jesse Guerra, Herman Haggerty, Jack Lockwood, Paul Mantsch, John Peoples, Jay Peterson, Tom Peterson, Roger Rice and Ivan Rosenberg. Giving Talks outside the Laboratory were George Biallas and Hank Hinterberger.

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*Novice bracket winners, from left, Hagler (second), Smith (first) and Allen (third).*



*Open bracket winners, from left, Parry (third), Gerig (first) and Gannon (second). (Photographs by R. Gerig.)*

SMITH AND GERIG WIN RACQUETBALL TOURNAMENT

Glenn Smith took first place in the novice bracket and Rod Gerig captured top honors in the open bracket of Fermilab's racquetball tournament.

The event was held Dec. 12-14 at Country Courts on Kirk Road, north of the Laboratory. The tournament followed the first round of league play. More than 40 Fermilab employees and members of their families play in the league.

Rounding out the novice bracket was Ed Hagler with second place; Larry Allen, third; and Kevin Jordan, fourth. In the open bracket, Jeff Gannon took second; Rich Parry, third; and Cary Kendziora, fourth. Each bracket had 12 competitors.

The tournament was organized by George Krafczyk and Gannon, who is an instructor at Country Courts. Fermilab has a corporate membership there.

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