

# FERMILAB NEWS

 Fermi National Accelerator Laboratory

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## Al-A2 COOLING TEST SUCCESSFUL

A test to determine how well satellite refrigerators will work when they are tied into the Central Helium Liquifier Facility (CHLF) and to the superconducting magnets in the Main Ring has been successful.

The test, begun Aug. 14 and ending Sept. 26, simulated as close as possible the running conditions when the superconducting accelerator is complete. For this test, the refrigerator at A1 on the Main Ring simulated the CHLF (which is not yet tied into the satellite refrigerator network). Liquid helium, the coolant that bathes the magnet coils, was moved through the transfer line from A1 to the satellite refrigerator at A2. This refrigerator at A2 was connected to a string of 40 superconducting magnets.

Don Richied, assistant group leader and project manager of the Energy Saver transfer line system, said he was quite satisfied with the test and that it shows satellite refrigerators will do what they are supposed to. He said the testing will continue to check out and harden up all of the components in the saver systems.

The Al-A2 test began a new trend as far as the Energy Saver is concerned, said Richied. Until now, many specialty groups have worked independently perfecting the components they are responsible for, he explained. But now the various systems are beginning to come together as the new accelerator progresses.

For example, in the Al-A2 cooling test, "Refrigeration Department personnel, that is, transfer line people, testing and operations people and satellite refrigerator support people, as well as the main control room, joined together," Richied continued. "It's a trend we'll see increase in the future, one in which there is continuing integration of groups into one operation."

Richied explained that earlier tests were conducted on a satellite refrigerator as a stand-alone and did not push it to full capacity.

(Continued on page 2)

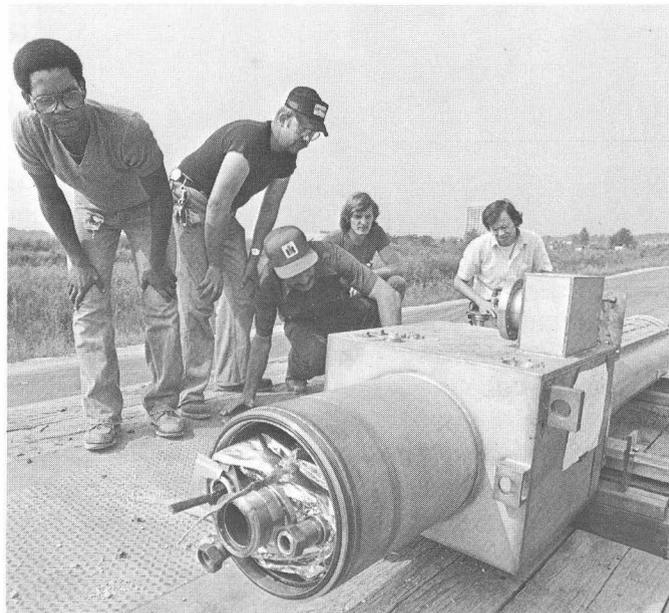
## BULLETIN

Two Fermilab users have been awarded the 1980 Nobel Prize in physics. They are James W. Cronin of the University of Chicago and Val L. Fitch of Princeton University.

They were honored for their discovery of CP violation in  $K^0$ -decay in an experiment carried out at Brookhaven National Laboratory in 1964.

Cronin is a member of the Exp.617 collaboration. This experiment will begin tests in November. It is located in the Meson area.

Fitch is with the Exp. 650 collaboration. This particle search experiment is located in the Proton-West area. It will begin running next month.



*From the left, Rodney Shores, Mike Gold, (an unidentified rigger), Dave Augustine and Eric Hanson with a spool piece. These pieces tie sets of magnets together. This crew is responsible for the assembly of cryogenic components in the Main Ring tunnel.*

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*From the left, Rick Diehl, Mike Reynolds, Clint Vickers, Fannie Linton and Bryan Billenstein with the end of the transfer line that spans the buildings between A1 and A2. The vertical unit is the bayonet can. The transfer line runs from can to can.*



*From the left, Ralph Afanador, Bill Martin, Tom Peterson, James Loskot and Bill Noe Sr. are some of the key people who designed, built and installed the gas engines for the refrigeration system. They are shown in the A1 refrigeration service building.*

Other people who worked on this project include Ken Olesen, Richard Brazzale and Mike Hentges. They were responsible for the refrigerators. Rick Bennett and Ron Norton worked on the layout and installation of the transfer line. Tony Rader and Fred Walters worked on the double turn-around box for the Main Ring tunnel.

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## DECISION ON SPACE TELESCOPE SCIENCE INSTITUTE REVEALED

The Space Telescope Science Institute will not be located at Fermilab, trustees of Universities Research Association were advised recently. URA submitted a proposal to the National Aeronautics and Space Administration earlier this year setting forth its case for locating the Institute at Fermilab. The Institute will monitor the data collected by the space telescope that will be launched by NASA from the space shuttle in 1983.

Norman Ramsey, URA president, made this comment on the decision: "We were deeply disappointed to learn that the URA proposal for the Space Telescope Science Institute was not one of the two selected by NASA for further consideration. We believe that the space telescope is a great scientific project and that URA would have provided excellent management for the Science Institute.

"Despite this disappointment," Ramsey said, "we greatly appreciate the generous assistance and support of all those at Fermilab who contributed to the proposal effort."

Princeton University and Johns Hopkins University remain in the running as locations for the Institute.

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## BROWN ASSOCIATE HEAD OF RESEARCH DIVISION

Charles N. Brown is now the associate head of the Research Division. He has been serving in that position since his appointment in February of this year.

Before moving to the new post, he had been head of the Physics Department.

Brown also was head of the Meson Department from June 1, 1975 to December 31, 1976, and a member of the collaboration that discovered the upsilon particle - Exp. 288 in 1977. He joined Fermilab in July 1974.

In 1963, Brown was awarded his bachelor's degree by the University of British Columbia in Canada; his master's degree in 1966 and doctoral degree in 1968, by the University of Rochester.

For the next three years he was a research fellow at Harvard University; in 1971 he accepted an appointment on the faculty as an assistant professor.

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## KOEHLER TO HEAD RESEARCH DIVISION

Peter F. M. Koehler has been named head of the Fermilab Research Division.

His appointment became effective Oct. 1. He succeeded John Peoples who had served as head since March 13, 1975. Peoples is now working on the antiproton source in the Accelerator Division.

Koehler said, "The Research Division is in for a tough three or four years, having to fulfill responsibilities in three major areas." He described these as:

1--keeping the Laboratory's commitment to experiments in the 400 GeV program;

2--assisting in the construction of the Energy Saver;

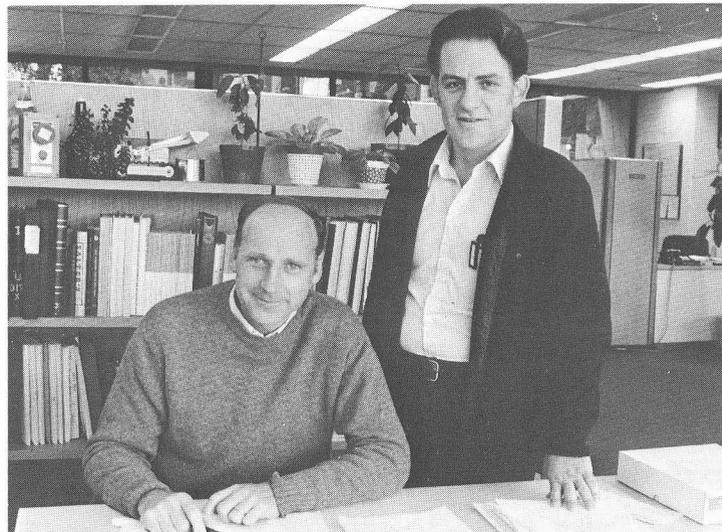
3--transforming the Neutrino, Meson and Proton experimental facilities so they can accept higher energy beams as they become available.

In assessing these missions, Koehler said the real problem of the 400 GeV program is the lack of running time. It has been severely restricted for fiscal year 1981 because of budget constraints and downtime needed to install the Energy Saver magnets. The Laboratory's big concern is to hang on to the good experiments--"which are our main reason for existing"--as well as to maintain commitments to experiments that have already been running or are about to begin. He said when the accelerator comes on next month, 11 experiments will be on line to accept beam in three experimental areas.

While the Energy Saver is being constructed, many teams of experts from the Research Division will be working on projects for the Energy Saver, said Koehler. "We will be doing our share to get the Saver going." The new division head pointed out that the teams assigned to Saver projects will still remain part of the Research Division.

In preparing for the future, the Research Division plans call for a healthy fixed target program at 1,000 GeV. A new generation of experiments is being prepared for the higher energy beams. They will be much larger and most likely each will cost several million dollars, he predicted.

Koehler earned his bachelor's degree in physics from Harvard College in 1960; his master of science degree from George Washington University three years later; and his doctorate in physics from the University of Rochester in 1967. Then



*Peter Koehler (left) with Charles Brown, associate head of the Research Division.*

Koehler joined the faculty of the University of Maryland as a research associate. He was with the university for two years, then went to the Argonne National Laboratory, where he was an assistant physicist. He joined Fermilab in 1973, first being assigned to the Meson Department. From January 1974 to June 1975 he was the department's head.

Koehler was a member of Experiment 61. In January 1976 he became the associate head of the Physics Department. One year later he was named head of the department, a position he held until January of the following year. At that time he joined the Energy Saver group.

In early 1979 Koehler was selected by the Alexander von Humboldt Foundation to receive a "Senior U.S. Scientist Award." He spent a year's sabbatical at DESY in Hamburg, Germany, participating in one of the first-round experiments on PETRA, the electron-positron storage ring accelerator. He returned to Fermilab two months ago.

Asked to compare working at Fermilab and DESY, Koehler said he likes Fermilab's open-door policy and considers it "healthy." By that he meant nearly everyone becomes involved at one time or another in the crucial decisions about the way the Laboratory is run and the experimental programs.

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### WANT TO KNOW MORE ABOUT SOLAR ENERGY?

The Fermilab Library frequently receives Department of Energy reports and documents about solar energy, said librarian Roger Thompson. He encourages employees to look them over.

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VOLUNTEERS SOUGHT FOR  
PRAIRIE SEED GATHERING

Volunteers are being sought to gather seeds for Fermilab's prairie restoration project.

The harvest will take place 10 a.m. to 3 p.m. in two locations Oct. 18. They are the Morton Arboretum and the Gensberg-Markham Prairie. If the weather is inclement, the alternate date is Oct. 19.

Volunteers have been asked to bring three or four large supermarket shopping bags into which they can place the seed. Harvesters who are doing this for the first time will be shown how to pick the seeds.

Those going to the Morton Arboretum should enter through the west gate on Leask Lane Road. For anyone who wishes transportation to Markham, a van will leave Wilson Hall at 8:30 a.m. It will leave Markham at 3 p.m. Volunteers driving to Markham will find it convenient to drive to Troy one block east of Kedzie. Go north on Troy to 156th St. The prairie trail is on the east side of Troy at 156th St.

For additional information, call Ext. 3353. If the weather appears inclement the morning of Oct. 18, volunteers may call the Fermilab operator, 840-3000, for instructions.

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BLINDSKILS PRODUCTS ON SALE

Merchandise made by blind craftsmen will be on sale all day Oct. 20 in Wilson Hall cafeteria. The items will be sold through Blindsills, an organization that serves blind people. Money from the sale is used to benefit people with vision impairment.

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FALL TENNIS TOURNAMENT CALL-UP

Tennis enthusiasts now have the opportunity to sign up for a mixed doubles tournament. They should contact Helen McCulloch, Ext. 3126, or Mary Ann Ernwein, Ext. 4915, no later than Oct. 25 - the deadline. The finals will be held Nov. 22. Players who do not have partners also are encouraged to sign up.

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HALLOWEEN PARTY

The Fermilab Music Club's annual Halloween Dance will be held Oct. 31.

Activities will begin at 9 p.m. at Kuhn Barn in the Village and continue until 1 a.m. the next day. The program will feature J.D.G. Enterprises as the disk jockey. Prizes will be awarded for the best costumes. Admission will be by advance ticket sale only, with a ticket costing \$3. Beverages will be available.

Tickets may be purchased from Marilyn Bailey, Ext. 3282; Joyce Curry, 4632; Ron Davis, 3074; Johnny Geraldts, 3259; Theo Gordon, 4455; Ed Justice, 4284; and Larry Tate, 3141.

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INSURANCE PROGRAM INTERVIEWS

A series of insurance enrollment interviews will begin at Fermilab during the week of Oct. 20. The interviews will be held during normal operating hours. Employees will be given an opportunity to learn more about a new voluntary permanent life insurance program.

Individual contacts will be made regarding the meeting times and locations. A representative of Corporate Benefit Systems, Inc., will explain the plan and answer questions. This company designed the program and Fermilab is providing the opportunity for those interested in a group permanent life insurance arrangement to participate.

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REMINDER ABOUT TAKING TEST

Candidates for Universities Research Association scholarships are reminded that they must have taken the American College Test (ACT) to be considered eligible.

Ruth Christ, assistant personnel manager, Ext. 3793, encouraged students to sign up to take the ACT, one of the major criteria URA uses in selecting scholarship recipients. The student must be a high school senior who will graduate next year and who plans to enter a four-year college program in the fall of 1981.

High school counselors have information about testing dates and application procedures, Christ said.

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