



## Proton Therapy Accelerator Passes First Test

The proton therapy accelerator designed and built at Fermilab for the Loma Linda University Medical Center, Loma Linda, California, has achieved its first successful operation at Industrial Building 2. The accelerator will be used at Loma Linda to treat cancer and other diseases.

This first operation is an important step in the agreement the Medical Center and Fermilab signed in 1986 to develop and build the accelerator. Under the agreement, the accelerator will be disassembled and moved to Loma Linda during the summer of 1989 when the clinical facilities for the treatment of patients are ready. In the interim, Fermilab will continue the start-up procedures, but will not treat patients. Fermilab will continue treating patients with its Neutron Therapy Facility.

The proton therapy accelerator is approximately 20 feet in diameter - the world's smallest proton synchrotron - and will deliver a variable energy of 70 to 250 MeV.

The use of protons for cancer therapy was first proposed by Robert R. Wilson, the first Director of Fermilab, immediately after World War II while he was at Harvard University. Pioneering work has been carried out for many years at the Harvard Cyclotron Laboratory built by Wilson; at the Lawrence Berkeley Laboratory at the University of California, Berkeley; and at laboratories in Sweden, the Soviet Union, and recently in Japan. All of this work has made use of accelerators originally built for scientific research and later adapted for cancer therapy. The work has proven that proton therapy has significant advantages over other methods of cancer treatment such as x-rays or neutrons. The greatest advantage is that the proton beam limits the radiation dose to the disease site, reducing the side effects of treatment, while still killing disease cells.

The proton therapy accelerator built at Fermilab is the first designed specifically for therapy. The accelerator itself has several features, such as precise energy control and long beam spill, that are included to make therapy easier and more efficient.

The facility at Loma Linda will have four treatment rooms, three with gantries to bring the beam to the disease site from any desired angle and one specialized room for treatment of the head and neck. It will be possible to treat many more patients in this new facility than has been possible in the past. Many new treatment aids and treatment-planning methods are being developed by Loma Linda for use at this facility. ❁

### URA Scholarship Applications Due

Candidates for Universities Research Association, Inc., (URA) scholarships are reminded that applications are due March 1, 1989. Scholarships are awarded on the basis of Scholastic Aptitude Test scores. Applications are available from and should be returned to Personnel Services, MS 113, ext. 4367.

URA awards a number of scholarships to full-time Fermilab employees' children who are currently high school seniors and who will begin a four-year college degree program next fall. The maximum amount of the scholarship is \$3000 for tuition and fees, and is renewable for four years if the student progresses in good academic standing.

Applicants will be notified regarding the scholarships in early April. ❁

### Employee Assistance Program

The Employee Assistance Program (EAP) is available to help Fermilab's employees. Each of us, regardless of job classification, faces a variety of problems in our daily lives. Most often, we are able to work through these problems ourselves. However, there are times a problem arises that is too much for us to handle. These problems can affect our job performance, our personal happiness, our health, and our family. If no help is sought, the problem usually gets worse, and often unpleasant, if not expensive, for all concerned. The problem may be stress, financial or legal difficulties, family or marital problems, or alcohol/drug abuse.

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## Fermilab Arts Series Presents the Waverly Consort and Musica Transalpina



*The Waverly Consort*

The distinguished Waverly Consort presents a program of Italian and English music of the late Renaissance titled "Sing We and Chant It" on the evening of Sunday, January 29, 1989, at 7:30 p.m. in Ramsey Auditorium. As a special feature, Musica Transalpina, a free lecture/demonstration explaining the unique musical connections between Italy and England in the late 16th century, by renowned early music scholar Eugene Enrico, will precede the performance at 4:00 p.m.

The six singers and four instrumentalists of the Waverly Consort are now entering their 25th anniversary season under the artistic direction of lutenist Michael Jaffe. Popular for their Christmas and Easter programs at the Cloisters and concerts at Lincoln Center and the Metropolitan Museum of Art in New York, the Waverly Consort has also received critical acclaim for their appearances in European, North and South American festivals, their extensive

discography, and several prize-winning presentations for television. "Sing We and Chant It" will be comprised of six program segments: Italian Music "Englished"; Transalpine Birds; Instrumental Variations on Italian Themes; Thomas Morley; English Madrigals; and Dances and Airs to the Lute.

Dr. Eugene Enrico is a well-published specialist and teacher in the history and performance of Italian and English music of the late Renaissance and early Baroque periods. With slides and musical examples provided by members of the Waverly Consort, he will examine the ways in which Italian musical styles of the late Renaissance were transplanted and transformed into a distinctive style of English music. This prelude to the Waverly Consort's performance is part of the Waverly Consort Humanities Project, and is being underwritten by a grant from the National Endowment for the Humanities.

The \$11 admission to the Waverly Consort's 7:30 p.m. performance includes an illustrated Program Guide containing essays on subjects related to and texts of the music being performed. There is no admission charge for the pre-concert lecture/demonstration, but reservations are required for guaranteed seating. Reserve seats for both events by calling ext. ARTS weekdays between 10:00 a.m. and 12:00 noon, or 1:00 p.m. and 4:00 p.m. Phone reservations are held for five days, but due to ticket demand, those not paid for within five working days will be released for sale. - **Tammy Kikta**

## In the Library

### Free Computer Searches for Physics and Related Topics...

A search in PHYS provides references and abstracts to journal and conference literature world wide. Coverage is from 1979 to date. The database can be searched by author, topics, keywords, journal, etc. Some of the subject areas covered include: theoretical and mathematical physics; measurement techniques, instrumentation; elementary particle physics; electromagnetism, optics, acoustics; fluids, plasmas, electric discharges. Please contact the Fermilab Library at ext. 3401 or FNAL:: LIBRARY for more information.

**Note:** If bound journals have found their way to your office, would you kindly return them to the Library, MS 109. - **Paula Garrett**

## Benefits Notes

### Connecticut General (CG) Medical Plan Change

The CG medical plan requires that *all* inpatient hospital stays be certified for medical necessity and length of stay. If you know that you are going to be admitted into the hospital, you should pre-certify the stay prior to admittance. Emergency inpatient hospitalization must be certified within 24 hours of admittance. Failure to follow the pre-admission certification and continuing stay review (PAC/CSR) procedure results in a 50% reduction in the amount CG would otherwise pay under the plan.

Effective January 1, 1989, the PAC/CSR penalty will be limited to a \$1000 cap. The penalty will be 50% of the hospital bill to a maximum of \$1000 for claims incurred on or after January 1, 1989.

- **Paula Cashin**

## A Secure Fermilab is the Mission of Fermilab Security

Fermilab prides itself on being an "open site," but that doesn't mean employees and users must leave themselves open to theft of equipment. The disappearance of an important piece of a department's or experiment's operating inventory can cost you and the Lab more than money (although that's bad enough); a loss can steal valuable time while a replacement is found for an item that needn't disappear in the first place.

Loss prevention is one of the programs being emphasized by Gary Verseput, new Chief of Fermilab Security, an element of the Emergency Services Department led by Rudy Dorner. Verseput, 40, married and the father of two daughters, is a 20-year army veteran who devoted his career to counter intelligence, security, and law enforcement. During his military service he completed a bachelor's degree in law enforcement from the University of Nebraska at Omaha, a master's degree in Police Science and Administration from American Technological University in Texas, and attended the FBI National Academy. He retired with the rank of Major in 1986. From 1986 until 1988 he worked for Pinkerton, the contract guard agency that had the security contract at Fermilab until recently, when Pinkerton sold their Nuclear Division to American Protective Services, which now holds the Fermilab security contract. His duties involved visiting eight sites to review the quality of the service that Pinkerton was providing and analyzing how that service could be improved.

"My role at Pinkerton not only afforded me an opportunity to learn the security contractor's business," Verseput told *FermiNews*, "it also allowed me to synthesize eight different sites' experiences, and eight different managers' ways of operating, and eight different clients' methods of operation into a philosophy, a method of operation, and a style of management that would fit me in a situation like Fermilab.

"I learned a tremendous amount in a short period of time about government-regulated installations, about working with a contract agency, and about organizations with a budget and a need to get the most for their dollars."

Verseput plans to emphasize at least two broad programs. One is loss prevention. Security's goal is to continue to make loss prevention everybody's business, not because it's a security requirement, but because it's sensible and it enhances the operations of the Lab. "If a department head or a section man-

ager fosters in their staff members a feeling of personal responsibility for security, they will find that computers and test equipment and tools will not disappear. They will then be able to go about their work without disturbances to their time or budgets," Verseput said.

Security hopes to meet those goals through education, liaison, and cooperative service. Not only will Security be glad to respond to requests for a loss-prevention analysis of a particular location, they also intend to start a program of surveys on a rotating basis, perhaps once a year, of all Fermilab facilities, and to offer advice and suggestions. In the meantime, requests for loss-prevention surveys can be made by calling ext. 4949 and asking for either Verseput or that day's duty captain.

The second major program is the continued development of professionalism within the Fermilab Security Department through daily training at every level. They will look every day at what can be learned from the process and what that means in terms of Security's mission: to support Lab operations by providing the services that keep the people and equipment safe and secure.

"There is an interesting challenge to maintaining beneficial security at Fermilab," said Verseput. "An environment that is secretive and secured to the *n*th degree is unacceptable to most of the Lab community. We, as security professionals, must balance the requirements for the security of everyone here, and for loss prevention and safety, against the need to not impede the Fermilab community's operations and not impinge on personal freedoms. We have many residents at the Lab from foreign countries, and those folks may perceive the U.S. on the basis of how they're treated here. Those are all important considerations and we have to strike a balance."

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Value of the narcotics that the U.S. Border Patrol's 3200 agents detected this year, per agent: **\$123,758.**

Value of the narcotics that the Patrol's 24 drug-sniffing dogs detected this year, per dog: **\$4,696,574.**

Average fine in Bavaria, West Germany, for calling a traffic officer a *damischer Bulle* (stupid bull): **\$1710.**

For calling a traffic officer a *Stinkstiefel* (smelly boot): **\$51.** - from *Harper's Index*



## The Activities Office.

### Aerobics Classes Offered. . .

A 10-week session of low-impact aerobics classes will be held at the Fermilab Gym beginning Monday, January 23, 1989, at 5:30 p.m. The objective of low-impact aerobics is to raise the heart rate for cardiovascular benefit without the jumping and bouncing movements often associated with traditional aerobics. One foot is always kept on the floor. Hand-held or wrist weights can be added for an additional challenge as the exerciser's fitness level improves.

In addition to the aerobics section of the class, floor exercises for toning/firming the abdomen and lower body, and stretches for flexibility, will be included.

If necessary, class size will be limited according to sign-up order.

The fee is \$1 per person per class; a Gym membership is required. For more information, call Jean at ext. 3126 or page 235.

### Summer Tennis Results. . .

The air this past summer was filled with tennis balls soaring in the vicinity of the Fermilab tennis courts (this includes too many tennis balls that soared into the vicinity of the swimming pools).

The organized tennis this year included the annual A and B Division singles tournaments. The winner of the A bracket was Steve Kuhlmann (*CDF*) who defeated Yasuo Fukui (*CDF*) 7-5, 6-4 in the finals. The B bracket was won by Don Flynn (*Info Systems*). He defeated Q. Zhu (*CDF*) by a score of 6-3, 6-4.

The annual summer challenge ladder was closed on September 30. The people at the top at the end of the season, managing to work their way up and then defend their positions, were #1) Rolland Johnson (right-handed) (*AD*) and #2) Charlie Briegel (*AD*).

The West Suburban Industrial League played only a few matches this past summer - but Fermilab did well to defeat Bell Labs in both the A and B divisions, and Western Electric in the B Division. Fermilab teammates included Steve Kuhlmann, Ray Dagenais, Yasuo Fukui, Charlie Briegel, Mel Storm, Rol Johnson, Simone DellAgnello, Don Flynn, John Reid, Glenn Federwitz, Dary Kuo, Bob Oudt and Hari Areti. - **Linda Even**

### "Employee Assistance" continued from page 1

The Employee Assistance Program is a service provided by Fermilab to help employees with personal problems that may be affecting job performance. The service is confidential; all contact with Employee Assistance is private, and no record of contact, referral, or treatment will be entered in your personnel file. If you have questions about Employee Assistance, contact the EAP counselor at ext. 3591. ❀

### Computer Paper Recycling

Arrangements have been made with a Batavia recycling company to pick up used computer paper from the Laboratory.

A container marked "Computer Paper - For Recycling Only" is located in the open bay area just opposite the Machine Shop windows on the ground floor of Wilson Hall. Employees are asked to leave their used computer paper in this container. ❀

## FermiNews Cla\$\$ified Ad\$

### FOR SALE

#### Miscellaneous:

20-in. COLOR RECEIVER/MONITOR, stereo with remote, 1 yr. old. \$100. 17-in. COLOR PANASONIC RECEIVER with remote, channel programmable. \$75. DRAPES WITH SHEERS, 2 sets, lined, 16 ft long with rod system and hangers, gold. \$100. Call Fred at ext. 4364 or 232-7623.

SWEATERS FROM ECUADOR, 100% virgin wool, limited quantities. \$50 (great gift). Call Graciela at ext. 4645.

MUD & SNOW TIRES (pair) for 4 x 4 vehicle, 11-15-LT, used approx. 1500 mi. New \$150. Now \$50. Call Mark at ext. 2953 or 820-5928

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