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ENERGY DOUBLER UPDATE: 8-MAGNET TEST SUCCEEDS

Another milestone for the Energy Doubler/Saver group!

A string of eight superconducting magnets (one percent of the eventual complete ring) has now passed week-long testing. Test leader Paul Brindza, a member of Alvin Tollestrup's group, reported the results. Previously, two-magnet and four-magnet strings had proved functional Brindza says. After the 8-magnet success, the goal of the group is to perfect the magnet-protection circuitry . . . and slowly but surely, the new accelerator is being developed.

According to Brindza, the latest successful tests prove that a large Energy Doubler string can be effectively monitored and controlled. "Our instrumentation, controls and magnet protection circuitry are prototypes for the entire Energy Doubler," he said.

The Doubler/Saver project is the superconducting magnet synchrotron being planned for installation in the existing Main Ring tunnel. The Main Ring will serve as injector for the Energy Doubler. Accelerated beams from the Doubler will be extracted and transported to the existing Fermilab experimental areas through present beamswitchyard tunnels. They will also provide a facility for creating colliding beams.

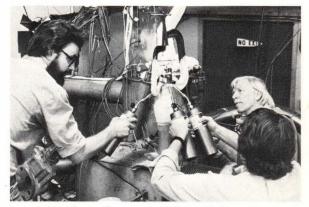
Preparations for the eight-magnet test began in August. Eight dipole magnets (the beam-bending magnets) were set up at the "awning," multiplemagnet test facility at the B-12 service building. During September and October numerous vacuum and electrical problems were solved.

Efforts of B-12 staffers culminated Oct. 28, when the string was energized to 3,800 amps. Through the next week, the magnets were "ramped" about 2,000 times to peak currents of 3,500 amps.

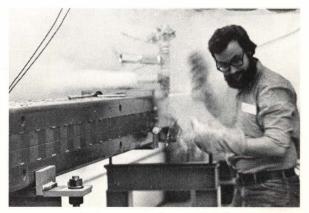
After the ramp tests, quench experiments were run which test magnet-protection circuitry. In a quench, a magnet is energized until it changes from a superconducting state to a normal resistive condition where the stored energy must be quickly removed to prevent damage to the magnet coils. Peak current reached in the test runs was 4,100 amps, Brindza said. December 1, 1977



...L-R: A. Tollestrup, M. Wake, R. Yamada, P. Limon, R. Angstadt review test videotape...



...Thawing frozen valve L-R are: P. Brindza, A. Tollestrup, P. Limon...



...P. Brindza repairs leaking valve...

(Continued on Page 2)

8-MAGNET TEST (Continued)

The effort will continue with various tests of quench protection schemes, starting again with two-magnet strings and working up to four, eight and sixteen using magnetic coils containing integrally wound heaters.

According to Brindza, "dramatis personae" playing key roles in the eight-magnet string tests were: Brindza, "stage manager"; Don Wendt, "electronic expert"; Jack Smith, "mechanical genius"; Jim Sykes, "cryogenic hot shot"; Bob Flora, "owl shift coordinator"; Charles Briegle, on-line programmer; physicist Alvin Tollestrup, "torch bearer"; physicist Peter Limon, vacuum expert; Bob Bennett, midnight helium supply; Stan Stoy, cryogenic consultant; and Claus Rode, refrigeration engineer.

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NEW RADIATION SAFETY OFFICER

Larry Coulson has been named Fermilab Radiation Safety Officer and head of the Radiation Physics Group. A Laboratory employee since 1972, his appointment was effective Oct. 15. Coulson completed undergraduate work at Kansas State University (1965) and received his Ph.D. from the University of Virginia (1970). He has written several monographs on neutron beam scattering. He resides in Wheaton with his wife Marie and children: Karen, 9; John, 6; and Scott, 2.

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CL FLOOR WARDEN SYSTEM UPDATED

Rudy Dorner, Emergency Services, has announced that the Central Laboratory floor warden program is being reorganized. "The program has been in existence for approximately three years and has functioned very well," Dorner said.

"In response to suggestions from floor wardens, Emergency Services has developed a new training program and format. We hope this new approach will improve the morale of our Floor Wardens and result in a better Emergency Preparedness program."

Features of the new program include new warden appointments for two-year terms. Also, a warden training program has been consolidated to minimize repetition and improve interest. All training is given in the first year of the warden's term of office. The second year of service is to be dedicated to emergency planning, drills and floor activity to include all employees in the Emergency Program. The Floor Warden will lead this program with assistance from Emergency Services.

Supervisors and management personnel will be contacted by Emergency Services to solicit their cooperation and support for the Floor Warden Program. Additional publicity and informational activities will be carried out by Emergency Services throughout the year.

According to Dorner, "Our goal is to provide an excellent emergency response program for the protection of everyone in the CL. In order to accomplish this, we must widen our base of support and involvement and make the program responsive to the needs of the building occupants.

Some 32 wardens and an equal number of alternates are assigned to CL: 12 wardens and alternates serve Village residents. A similar warden program is in effect in the Village under the leadership of <u>G. Doyle</u>, Village Manager and R. Dorner. Outlying areas will be organized as volunteers appear.

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BLOOD DRIVE DEC. 9 . . . A blood donation day at Fermilab will be held Friday, Dec. 9. Aurora Area Blood Bank will take donations in CL-1W from 9 a.m. to 2:30 p.m. By donating a pint, you may benefit three or four people and assure your family's blood needs for the coming year. CLASSIFIED ADS - For distribution with THE VILLAGE CRIER of December 1, 1977

FOR SALE: 1973 Chevrolet Malibu, excellent condition, no power or air conditioning, \$1800. Judy Ward at 3211.

FOR SALE: Culligan Mark 20 automatic water conditioner. New \$500, asking \$150. Sears automatic console home humidifier, \$35.00. Call Rich Parry at Ext. 4438 or 879-8987.

FOR SALE: Solid walnut bedroom set; 5-drawer chest, 9 drawer dresser with mirror, bookcaseheadboard, footboard; also, 7-piece dinette set. Call Robert Harkus at Ext. 3371 or 879-2698.

FOR SALE: Basement storm windows - new, white pine, 1" x 22" x 29" with two panes of double strength glass 12" x 18". Reasonable. Call Ed Brezina at Ext. 3580 or 312-323-0794.

A Du Page County branch of the Coronary Club has recently been formed at the Marianjoy Rehabilitation Center in Wheaton. This club is tailored to, and is open to, coronary patients of all kinds from post-surgical to potential heart problems. The main purpose is to dispense information and to share experiences concerning America's No. 1 Killer. Anyone interested in this club or wishing further information, call Marv Warner, Ext. 4430.

FOR SALE: '73 Nova Hatchback, 6-cyl. auto., power steering, radio, excellent tires, 56,000 miles, \$1100. Call Hal at Ext. 3535.

FOR SALE: Clean car, 1964 Olds Jetstar 88, fair to good condition throughout. Call Travis Minto at 851-3268 or 840-3008.

FOR SALE: Delux Scuba Bac Pac; all metal (vinyl covered alum. and polished stainless steel) velco fasteners, large contoured, angled frame with rubber sternum pad. Like new. Call Travis at Ext. 3008.

FOR SALE: '73 Olds 98 Regency, 4 dr., full power, new exhaust, 60/40 seat, very clean. Call J. Hogan at Ext. 4459.

WANTED: Female to share 2 bedroom apt. in Lombard. Immediate occup., \$180/mo. plus sec. dep. Call 332-7144 from 9-5 or 620-8251 after 6 p.m.

FOR SALE: Four Mickey Thompson Baja Sportsman tires mounted on 10-1/2" steel rims, \$200. Call LaDaune at Ext. 3555.

FOR SALE: Lake Holiday lot, short walk thru park to lake, lot is level, asking \$6000. Page 240 or call 897-8851.

FREE: 1¹/₂ yr.-old female Schnoodle. Shots, good with children, very playful. Call Bale at Ext. 3719.

FOR SALE: 1970 Luxury Olds - p/s, p/b, p/w, p/seats, radio, a/c, new Fingerhut seat covers still in box, included. Lots of miles, but good runner. Call Ext. 3355 or 231-3942 after 5:00. \$600.

FOR SALE: 1974 12' alum. Star Craft, 1974 9½ Johnson (30 hrs. use), 2 bass boat seats, carpeted, Minnetonka trolling motor with heavy duty battery (remote control), 1974 trailer with new spare tire, Buddy bearings, 6-gal. gas can plus many extras, mint condition, must be seen to be appreciated, \$1200. Call Ext. 3742.

For Shaklee Products or distributorship information, contact Bud Hamm, Ph. 293-1327, evenings.

CLASSIFIED ADS (Continued)

FOR SALE: Two snow tires, blackwall, H78-15 Sears Dynaglass XST Belted, used only 3 months, excellent tread, \$20 each. Call Vanek at Ext. 3451 or 232-2196 after 6 p.m.

FOR SALE: German Short-Haired Pointer pups, A.K.C. reg., tails and dew claw clipped. Color - white and liver, 6 wks old, \$100. Call Ext. 4015 or after 4 p.m. call Nancy at 815-436-3468.

FOR SALE: 7 ft Xmas tree, includes stand, \$5. Sears Vacuum, motor has new brushes, includes Powermate, \$20. Call John, Ext. 3157.

FOR SALE: 10 - 1977 Wilson Staff irons; #2 trough Sand Wedge; Stiff Shaft D-3 Swing Weight; All-weather Grips, \$155. Call Ralph Wagner, Ext. 3395.

FOR SALE: 3 - 1977 Ben Hogan Woods, Driver 3-wood, 4-wood; Stiff Shaft, D-3 Swing Weight, All-weather Grips, \$60. Call Ralph Wagner, Ext. 3395.

FOR SALE: 1974 Pontiac Grand Prix, 64,000 miles, loaded, has everything. \$3,000 or best offer. Call Jack Smith at Ext. 3385 or 3386.

Stay in shape this winter! Bicycle indoors on ROLLERS! Smooth, quiet, scarcely used. Suitable for Christmas gift. Make Offer. Call Curtis, Ext. 4411 or 879-2974.

Tim Toohig, S.C., will offer Mass at 12:00 noon on the Feast of the Immaculate Conception, Thursday, December 8, at the Cenacle Retreat House, Batavia Road, Warrenville. (In the small, upstairs Chapel.) All Fermilab employees, experimenters and visitors are invited to participate. If you have questions, call Elsie at Ext. 3674.

FIRST SERVICE AWARD RECIPIENTS



... Fermilab's first program to recognize employee service was held Nov. 16. A service award luncheon citing 34 employees with 10 years of service was held in the CL-1W conference room. At the informal event, each employee received a sterling silver jewelry item bearing the Fermilab logo. 10-year Fermilab employees are (L-R): FRONT ROW: L. Sobocki, A. Gonzales, C. Hines, B. Schluchter, M. Meyer, J. Plese; SECOND ROW: Q. Kerns, R. Rihel, R. Wagner, A. Skraboly, T. Frelo, C. Marofske, G. Tool, C. Curtis, E. Goldwasser, R. R. Wilson; THIRD ROW: D. Smith, D. Young, P. Livdahl, J. Buffenmyer, N. Ramsey, A. Roberts, L. Teng, S. Snowdon, M. Palmer, L. Hardy; BACK ROW: J. Wildenradt, G. Lee, F. Cole, W. Jones, C. Owen, L. Read, and J. O'Meara. Not shown: R. Williams...

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FOURTH LECTURE PROGRAM

"Domination through Media" will be explored at 8:30 p.m. Friday (Dec. 2) in the Fermilab auditorium. Dr. Harvey L. Molotch, associate professor of sociology at the University of California-Santa Barbara, will speak. The public program will be the fourth in a 1977-78 Fermilab Science and Humanities Lecture Series. Admission is free, but tickets are required. Contact the Guest Office, CL-1W or phone Ext. 3440.

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..Rev. D. McClurken

FILMMAKERS VISIT FERMILAB

A National Broadcasting Company film team flew in from New York to shoot footage at Fermilab Nov. 6-10. Exp. 288 (Proton), the Main Ring tunnel, scanning facility and aerials from a helicopter were recorded by the visitors. Also, Director R. R. Wilson was interviewed on film. The segment will ...D. Scharf- be part of a one-hour documentary on the impact of science on religion. Theme of the program will be that the most important change in the understanding of religious truth has come from the discoveries of science. Most of the special is historical, shot in Italy and England. Contemporary segments, shot in the U.S., will be of Fermilab and Kitt Peak National Observatory. D. A. Scharfenberg, NBC, was the producer; Rev. D. W. McClurken represented the National Council of Churches. Date and time of the broadcast will be announced.



... Fermilab director R. R. Wilson is filmed for TV science/religion special ...



ETHNIC LUNCHEON ATTRACTS RECORD CROWD

"Mariachi Monterrey," a band from Chicago, played to a record ethnic luncheon turnout in the cafeteria Nov. 17. The menu was Mexican and Julio A. Rodriqguez, Chicago representative, Mexican national tourist council, provided free literature. Helping chef <u>Bill Ross</u> prepare Mexican dishes were Hector Labra and his mother, Mary, of Aurora's La Fiesta Restaurant. John Barry, acting cafeteria manager, says more ethnic luncheons are planned. Employee suggestions are welcome.

SPECIAL NOTE: An employee cooking school will be conducted by Chef Ross in January. A limited-enrollment class will meet evenings weekly for six weeks at the User's Center. A nominal fee will be charged. Details will be announced.

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CHARITY DEDUCTION SIGNUP ENDS FRIDAY

Signup forms are due Friday (Dec. 2) for the 1978 "Choose Your Charity" program. Under the plan, employees may designate up to three charities to receive regular payroll deduction contributions. Pledge forms are due in the Payroll department tomorrow. For more information, contact the Personnel Department at Ext. 3324.

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ATTENTION DO-IT-YOURSELFERS

Employees and visitors are tempted -- especially in cold weather -- to park, service and repair personal vehicles inside Fermilab facilities. These practices are <u>not autho-</u> <u>rized</u>. All employees are requested not to encumber the Laboratory with these hazards and the exercise of special privilege.

CHRISTMAS PARTIES ANNOUNCED

Tickets go on sale today for the "Red Ribbon," 1977 employee Christmas dinnerdance sponsored by NALREC. Fermilab employees, and experimenters, employees of Management Safeguards and Mutual Maintenance and Fermilab-Department of Energy Employees and their spouses are invited to attend.

The holiday event will be held on Friday, Dec. 16, at St. Andrews Country Club, in West Chicago. Festivities get underway at 6:30 p.m. with a cocktail hour. Dinner (prime rib) will be served at 7:30 p.m. "Frank K and Company" will provide music for dining and dancing until midnight.

Tickets at \$8 per person include two free cocktails and dinner. Tickets will be sold to employees from today through Thursday, Dec. 13. Tickets are being sold by <u>Sherry Nila</u>, Magnet Facility; <u>Jesse Guerra</u>, Proton CL-GF; <u>Ed Lavallie</u>, 11-W; Dominick Carullo, Magnet Facility; and all other NALREC committee members.

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CHILDREN'S CHRISTMAS PARTY -- Kids 1-8 years of age are invited to their very own party Sunday, Dec. 11, from 1 to 4 p.m. in the Central Laboratory cafeteria. Santa will fly in early to meet children and present each with a gift. "Little Rascals" movies will be shown in the auditorium. Punch, cookies and coffee will be served in the cafeteria. Return the slip below to <u>Sharon Lackey</u>, Cross Gallery, Ext. 4422/3721, to tell her how many children you are bringing.

> TO: Sharon Lackey, Cross Gallery I will bring _____ children to the Christmas party on December 11.