

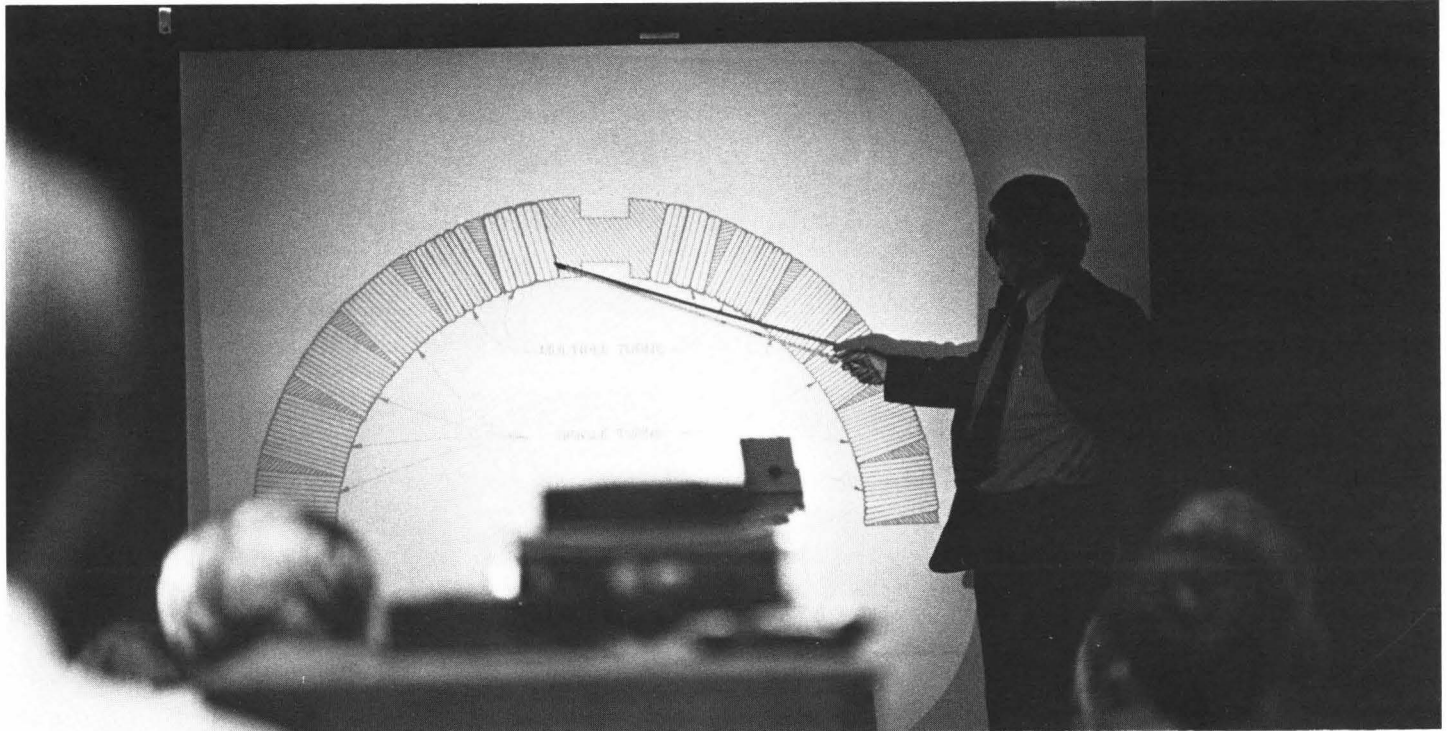
# FERMILAB NEWS

 Fermi National Accelerator Laboratory

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... A cross section of a proposed Super Conducting Magnet is projected by W. Sampson at "Big Accelerator" Conference.

## PHYSICISTS TALK OF BIG ACCELERATORS

Discussions of a giant proton accelerator, 40 times more powerful than Fermilab's machine, drew scientists here from around the world last month.

On the horizon is a 20 TeV (20,000 billion electron volt energy) machine. Current output energy of the Fermilab accelerator is about 500 BeV. Meeting at Fermilab for the first of a series of workshops, studying big future accelerators were some 45 scientists from the U.S., Western Europe, USSR, China and Japan.

"Workshop on Accelerator and Detector Possibilities and Limitations" was the session's title. Sponsor was the International Committee for Future Accelerators (ICFA). Lee Teng, Fermilab Accelerator Division associate head for advanced projects, was chairman of the workshop.



...B. Richter (L) of SLAC and J. Augustin, U of Paris, between conference sessions..

Purpose of the workshop was to investigate possibilities and limitations in the performance of future accelerators and colliding beams, and in the performance of particle detectors for use in experiments.

Dr. Teng reported that the week-long

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*...Physicists worldwide gathered in Fermilab's Curia II for "Big Accelerator" planning meetings....*

BIG ACCELERATOR (cont'd)

session focused on seven topics: electron accelerators/storage rings; proton accelerators; colliding beams; particle detectors; neutrino experiments; hadron experiments and Lepton/photon experiments.

In line with the meeting's mission, Dr. Teng said, many potential problems associated with the super-high energy were sought out. "A few of them were solved," he said, "others serve to point the direction where future efforts should be applied. Whether it brings us closer to a world accelerator, the output of the workshop was in itself a significant technical contribution."

Results included reports that scientists foresee no roadblocks to obtaining energies about 20 TeV or problems in identifying and measuring particles at this energy. Also discussed were two 14-mile-long linear accelerators hurling electrons and positrons to 350 BeV energy to collide with each other.

Former Fermilab director R.R.Wilson outlined a Pentevac (5 TeV) accelerator proposal in a spontaneous talk. Several such talks and meetings were scheduled as they arose.

Invited speakers were: W. Sampson, Brookhaven National Laboratory, on "High



*...H. Wiedemann, SLAC presents slides....*



*...V. Yarba (L) and K. Myznikov, U.S.S.R., compare notes...*

Field Superconducting Magnets"; M. Tigner, Cornell University, "Superconducting RF Cavities"; N. Skrinsky, INP/Novosibirsk, U.S.S.R., "Electron Cooling"; and D. Mohl, CERN, Geneva, Switzerland, "Stochastic Cooling."

MAJOR ROAD REPAIR PROGRAM COMPLETED

Fermilab roads ride a little more smoothly since an extensive repair program was completed last month.

John Paulk, acting Site Services manager, said the improvements were the most significant in recent years. Of 10 repair projects comprising the program, four involved asphalt paving and six were "chip and seal," a mix of oil, gravel, tar and more gravel rolled into a road covering. This is also known as Class A-bituminous surface treatment.

Biggest single project involved a chip and seal of the Main Ring road--35,200 square yards were applied.

Other C/S projects were: Sauk Circle drive and parking areas, 5,500 square yards; Central Laboratory west parking gravel lot, 11,477 square yards; Tagged Photon Lab hardstand, 3,600 square yards; Master substation, 1,666 square yards; and Site 38 road to gas cylinder building, 700 square yards.

Asphalt paving projects were: Wilson Street, from Kirk Road access to Batavia Road intersection, 4,200 square yards; Shabbona Road, in the Village, 3,252 square yards; Site 38 parking lot, 2,631 square



...Road repair specialists are M. Becker, N. Trevino, D. Shemanske, D. Hanson...



...Batavia Road under repair....

yards; and Batavia Road, from Wilson Street intersection, 746 square yards.

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NALREC Presents  
1978 CHILDREN'S CHRISTMAS PARTY  
Sunday, Dec.17

2 P.M.

Fermilab Atrium



Children (ages 4-8) of employees, visiting experimenters and sub-contractor employees are invited to meet Santa at Fermilab Sunday, Dec. 17. Festivities start at 2 p.m.

Santa will stop by in a pre-Christmas visit with a gift for each child. "The Snow Queen," a feature-length cartoon, will be shown in the auditorium. Based on Hans Christian Anderson's story, the Universal Studios production shows how love defeats the wicked "Snow Queen." The voices of Art Linkletter, Sandra Dee and Tom Kirk portray characters.

Refreshments will include cookies, punch and coffee. Party admission is free. No reservations are required. For more information, contact Sharon Lackey, Ext. 4453.

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REMINDER: Tickets are on sale for the all-Laboratory Christmas dinner-dance to be held Friday, Dec. 15, at the Fox Valley Country Club, North Aurora. The event opens at 6:30 p.m. with cocktails. A prime rib dinner will be served at 7:30 p.m. and dancing to the music of the "Mello-Tones" is set from 9 p.m. to 1 a.m. Deadline to buy tickets, \$7 per person, is Friday, Dec. 1. Contact any NALREC representative.

## HOLIDAY NOTICE

Most Fermilab offices and the Energy Doubler Magnet Division will be closed Thursday and Friday (Nov. 24-25) in observance of the Thanksgiving holiday. To accommodate experimenters, the Accelerator Division and Research Division will be staffed.

No meals will be served Thanksgiving day. On Friday, Nov. 25, hours will be: Breakfast--8 a.m. to 10:30 a.m.; Lunch--11:30 a.m. to 1:30 p.m. Dinner will not be served.

Jo Baaske, Payroll supervisor, reminds weekly employees that the regular time sheet mail run will be made on Friday (Nov. 17) at 10 a.m. Monthly timesheets are due in Payroll at 10 a.m. Monday, Nov. 13. Leave taken between Nov. 13 and Nov. 21 should be reported by memo to Payroll.

On Thanksgiving and the day after, regular visiting hours for self-guided tours will be observed. Visitors may tour the atrium floor and 15th floor exhibit area from 8:30 a.m. to 5 p.m. A brochure outlining a self-guided tour, and other literature, is available at the atrium reception desk.

The Thanksgiving holidays are the fifth and sixth of nine holidays to be observed by the Laboratory in 1978. Other Fermilab holidays are: Christmas eve, Friday, Dec. 22; Christmas Day, Monday, Dec. 25; and a floating holiday, a workday selected by the employee with prior approval from the supervisor. Employees are reminded that the 1978 floating holiday must be taken during this calendar year; the holiday cannot be carried over to 1979.

### CENTRAL LABORATORY POWER OUTAGE

At 8 a.m. Saturday, Nov. 18, all electrical power in the Central Laboratory will be shut off until about 4 p.m.

John McCook, Associate Director for Administration, said the outage is necessary to upgrade selected electrical circuits. During the outage no cafeteria food service or electrically-powered vending machine service will be available. Security personnel will reduce non-essential lighting by 7:30 p.m. daily until the upgrade is completed.

The upgrade will correct an electrical overload condition between two transformers that supply the CL. Due to the overload, air supply and exhaust blowers which circulate air to the south half of the building must be shut down during some working hours. Reducing evening lighting will enable blowers to circulate air overnight in the building for the next working day.

### TURKEY CALL CONTEST, RAFFLE WINNERS NAMED

Fourteen turkeys were awarded Thursday in NALREC's second annual turkey raffle/turkey calling contest. The events highlighted this month's social hour at the Village Barn.

Co-Champion turkey callers were Glenn Lee (Accelerator Mechanics) and Robert Oberholtzer (Accelerator Beam Transfer). Each won a 10-12 pound turkey as a prize. Judges Joe Baaske, Jean Plese, Jesse Guerra and Marlon Palmer selected the finalists with the audience deciding the winners by acclamation.

Winning birds in a drawing were: Ed Leung (Cryogenics), Phyllis Hale (Guest Office), Lily Aguilar (Personnel), Linda Even (Energy Conservation), Jean Plese (Directorate), Jo Baaske (Payroll), Teresa Tomasko (Controls), Jesse Shaffer (Proton), Bill Wickenberg (Accelerator Electrical Support), Colleen Plezbert (Computing) and Fran Macouda (Accounting).