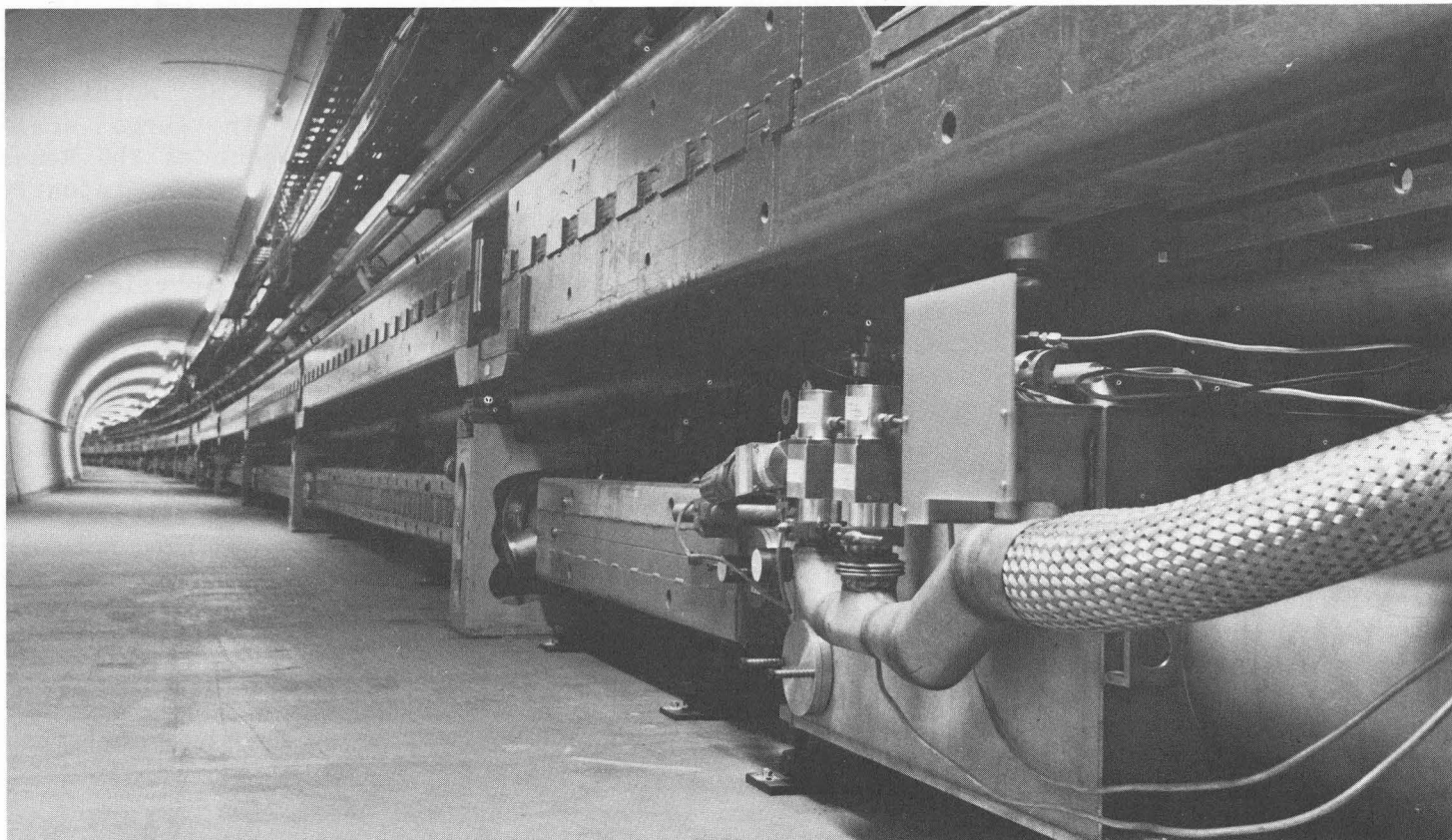


May 17, 1984

FERMI NATIONAL ACCELERATOR LABORATORY

FermiNews

ENERGY SAVER FORMALLY DEDICATED !



The Dedication of the Energy Saver was a spectacularly successful event and succeeded in its primary goal of formally calling attention to the outside world that our machine works and that we are proud of it. As explained in an earlier memo to Section and Division Heads, the dedication was important for friends of science, trustees, officials, congressional members and staff, local dignitaries, etc. It was an opportunity to thank them for their help and to listen to their views on the general subject of science and high energy physics. Some three hundred visitors and an equal number of our users attended the event. It was, incidentally, not possible to make a sensible list of Fermilab participants; a totally arbitrary selection of people was made, most of whom were assigned duties during the day. For people who felt left out, I apologize and accept full blame. It just isn't possible to thank them individually. This note is to express my great appreciation to the Laboratory staff collectively. The event did a lot of good things for Fermilab.

Reinhold

INDUSTRIAL AFFILIATES TO GATHER MAY 24 AND 25

by Dick Carrigan

The fourth annual meeting of the Fermilab Industrial Affiliates will take place May 24 and 25. The topic of this year's meeting will be "Industry and Large Scientific Projects--Particle Accelerators and Projections into the Future." The super accelerator that has been discussed so widely this year will be a prime example. This project may well be one of the most ambitious basic research projects in history. It is proposed to build an accelerator nearly 100 times more powerful than any now existing. In a ring approximately twenty times larger than the present ring housing the Fermilab accelerator, streams of protons will collide head-on, making available 40 trillion electron volts for the exploration of fundamental properties of matter.

The Fermilab Industrial Affiliates was established in 1980 in order to improve university-industry research communications and to foster technology transfer from Fermilab. The annual meeting provides an opportunity for research directors and senior technical personnel from the Affiliates and other companies, some from overseas, to visit Fermilab. By now the Affiliates number more than thirty institutions including many research-oriented companies in the Fortune 500 list as well as several companies formed by former Fermilab staff members and users. Roughly half of them are in Illinois.

Direct activities of the Affiliates include visits of company representatives to Fermilab and Fermilab personnel to Affiliates. Affiliates also receive selected Fermilab reports and other information about on-going work at the Laboratory.

Specific technology innovations are only one facet of the work of the Laboratory that is emphasized. The "scientific culture" related to particle physics is given heavy weight as well as the long range potential of such activities as the development of superconductivity technology. The participation of a large number of universities in all phases of the Laboratory is also important to Affiliate members.

Often an Affiliate's interest in the Laboratory is hard to gauge. A major oil company is interested in the on-going work at the Laboratory on supercomputers because such systems are needed for modern seismic oil exploration.

The highlight of the meeting this year will be a Round Table on Friday morning on industrial participation in large scale science projects. The object of the Round Table is to explore how deeply industry can, or would, opt to participate in projects like the super accelerator. How will industry react to the challenge of participation in a project which is vital to scientific research but whose follow-on benefits are not clear? In the particular case of the super accelerator, the manufacture of 10,000 large superconducting magnets will raise new problems of precision, quality assurance, and reliability. Whereas industry would not be expected to lose money, unusual requirements on close interaction with the designers throughout production may be required. The project will have large visibility and high risk. All of this cannot carry excessive cost penalties. Clearly there are many similar questions.

The Table, chaired by Dick Lundy, will include participants from a cross section of industries interested in a super accelerator. Among the participants are Dr. Ray Beuligman, program director of energy systems at Convair/General Dynamics; Mr. Carl Cliche, manager of the magnet systems program at General Electric; Mr. C. H. Dustmann of Brown-Boveri in Germany, now working on superconducting magnets for HERA; Dr. John Hulm of Westinghouse, one of the developers of modern superconducting wire and member of the Board of Overseers for the SSC; Mr. Carl Rosner, chairman and chief executive officer of Intermagnetics General; Mr. Ryusei Saito, chief engineer in the nuclear fusion division of Hitachi; and Dr. Ed Temple, head of the United States Department of Energy Working Group on the SSC. The diverse perspectives of the participants should lead to a lively exchange of views. In particular, the discussion may well illuminate differing industrial attitudes towards such tasks on the part of U.S., Germany, and Japan.

(cont'd on pg. 7)



THE SECRETARY OF ENERGY
WASHINGTON, D.C. 20585

April 23, 1984

Dr. Leon Lederman
Director
Fermi National Accelerator Laboratory
P.O. Box 500
Batavia, IL 60510

Dear Dr. Lederman:

Fermilab is one of those rare places where unusual combinations of talent and resources come together to explore the outer limits of what we know about the world on which we live and the universe in which it exists. It is a place where excellence abounds, and curiosity is the order of the day.

Today, you dedicate the completion of an improvement to Fermilab that gives it a new capability that not only represents a great technology accomplishment, but also breaks new records of particle energy. This Energy Saver project is an important milestone for Fermilab. It could not have been accomplished without the commitment of all who have worked to make it possible. The imagination to conceive of such an idea and the tenacity to see it through its many phases to completion demand a commitment to the pursuit of knowledge that I believe is one of the ingredients that has made our Nation great.

This is a happy occasion and recognizes an accomplishment for which all of you at Fermilab, your collaborators, and contractors can be justifiably proud. I am sure that this is just the beginning of many important scientific contributions. Congratulations on a job well done.

Sincerely,

A handwritten signature in dark ink, reading "Don Hodel", is written over the typed name.

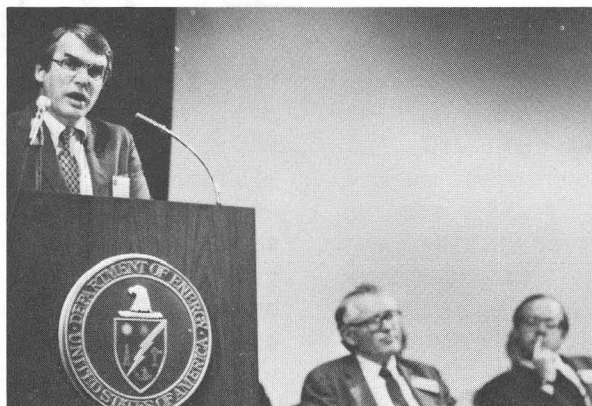
DONALD PAUL HODEL

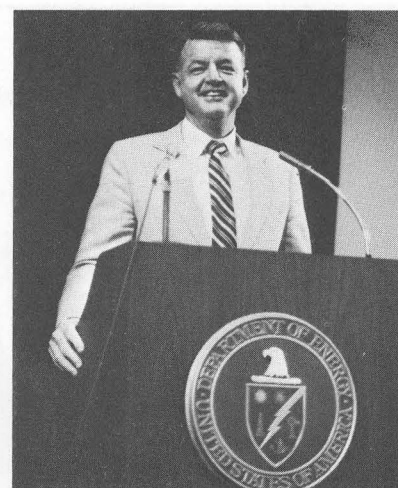
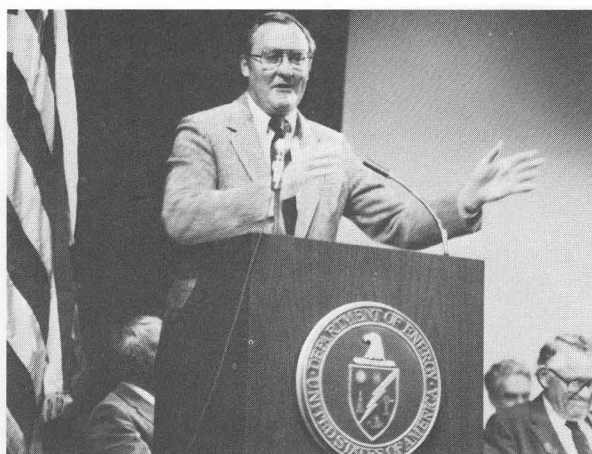


(Above) A view of Ramsey Auditorium during the Dedication proceedings.



Speakers at the Dedication included (clockwise from above) Leon Lederman, Director, Fermilab; H. Guyford Stever, President, Universities Research Association, Inc.; George A. Keyworth, Science Advisor to the President and Director, Office of Science & Technology Policy; and Charles H. Percy, Senior Senator, Illinois.





(Left to right above) Danny J. Boggs, Deputy Secretary of Energy; James R. Thompson, Governor, State of Illinois; and John T. Myers, Congressman, Indiana, Ranking Minority Member Subcommittee on Energy and Water Development, rounded out the program of Dedication speakers.

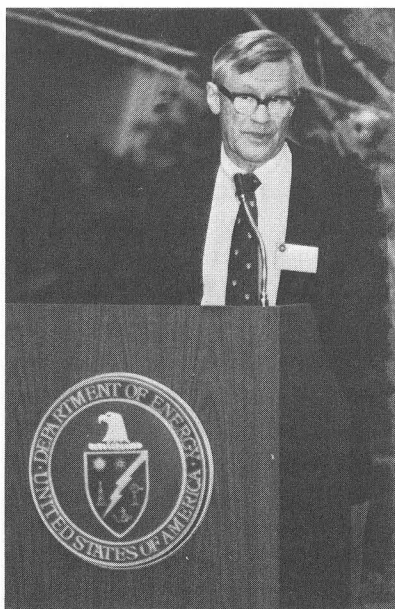
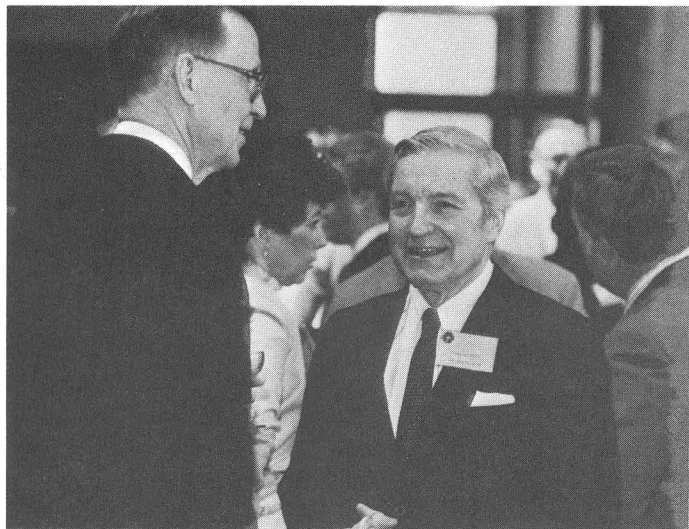
(Standing below) Danny Boggs; (back row) J. Ritchie Orr, Head, Energy Saver; Alvin Trivelpiece, Director, Energy Research Department of Energy; Edward Knapp, Director, NSF; Hilary Rauch, Manager, DOE Chicago Operations Office; Robert R. Wilson, Director Emeritus, Fermilab; Helen Edwards, Deputy Head, Energy Saver; Richard Lundy, Head, Superconducting Magnet Facility; (front row) H. Guyford Stever; George Keyworth, Science Advisor to the President and Director, Office of Science & Technology Policy; James R. Thompson, Governor, State of Illinois; Charles H. Percy; John Myers; and Leon Lederman.



(Left to right below) Alvin Trivelpiece; David Saxon, Chairman of Corp., MIT; Danny J. Boggs; James Leiss, Assoc. Director for High Energy and Nuclear Physics for the Office of Energy Research and Leon Lederman.

(Left to right below) Robert Wilson, Director Emeritus, Fermilab and William Wallenmeyer, Director, Division of High Energy Physics, DOE.





(Clockwise from upper left) Philip Livdahl, Acting Deputy Director, Fermilab, and Charles Percy, Senior Senator, Illinois; Father Timothy Toohig at left on podium giving the Benediction in the atrium proceeding the luncheon; Leon Lederman speaking before the Dedication luncheon; and David Saxon, Chairman of Corp., MIT.



INDUSTRIAL AFFILIATES . . .

(cont'd from pg. 2)

On Thursday, the meeting will concentrate on the super accelerator and the relevant experience gained with the Fermilab Energy Saver. Leon Lederman will lead in with a talk on the possibilities for physics in the 1990s that mandate an accelerator much more powerful than the Saver. Rich Orr will discuss the operating experience with the Doubler. Dick Lundy will then lay out the challenges of a super accelerator. Later, talks will enlarge on these challenges with Paul Gilbert of Parsons Brinckerhoff in San Francisco reviewing the architectural-engineering requirements; Claus Rode, outlining the characteristic of the large scale cryogenic systems that would be needed; Dixon Bogert, discussing controls; Mel Shochet, speculating on the detectors that will be required and Tom Nash, covering future directions needed for computers. As a cultural counterpoint, Rocky Kolb will explore the intriguing interconnections between particle physics and the early universe.

Thursday evening, Martin Cooper will speak at the banquet. Cooper, retired vice president and director of research at Motorola, was one of the principals in the development of the cellular telephone concept. He now heads his own firm, Cellular Business Concepts.

Tours and exhibits are an important facet of the meeting. This year the tours will concentrate on super accelerator related activities as well as controls and supercomputers. Concurrent with the Affiliates meeting and the Saver dedication, a group of companies that have worked on the Saver and the Tevatron were invited to prepare exhibits on the fifteenth floor of Wilson Hall. They were asked to focus on corporate abilities, contributions, and growth as participants in the Saver project. These exhibits are now on display.

Last year, participation in the Affiliate's annual meeting numbered 85 from outside Fermilab. Representatives of the U.S. Department of Energy, the State of Illinois, and the Valley Industrial Association, as well as the **Tribune**, **Sun Times**, and **Scientific American** also attended.

The participants were uniformly pleased with the meeting. The wide spectrum of Affiliate's interests emphasized the need to report on new Fermilab technology. Often others can see valuable ways to exploit a device developed for a very particular need here at the Laboratory.

REMINDER

"Phantom India" will be presented on Friday and Saturday May 25 and 26 at 8 p.m. and 10 p.m. by the Fermilab Auditorium Committee. A colossal documentary that does artistic and cultural justice to its almost overwhelming subject: the totality of India. In seven 52-minute sections, parts 1-3 on Friday and parts 4-7 on Saturday will be shown. For more information or to make reservations, call ext. 3353.

PONG/POOL TURNOUTS

In tournaments recently held at the Users Center, the Ping Pong tournament was won by Yasou Fukui of the Collider Detector Facility, the Straight Pool Tournament was won by Rick Coleman, Experimental Areas, and the 8-Ball Pool Tournament was won by Dale Esser, Plant Maintenance.

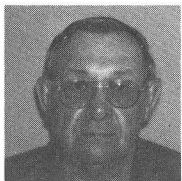
VOLLEYBALL SEASON FINAL RESULTS

The first Fermilab Indoor Volleyball League finished play on April 6 with Team #3 captained by Gary Andrews, crushing its competition with a perfect 12-win season. Gary molded a group of reasonably good and new players into a great team that was characterized by its ability to play "together". Final standings were as follows: Team #3 (Gary Andrews) 12-0, Team #5 (Brian Pientak) 10-2, Team #2 (Rice/Zagel) 7-5, Team #4 (Bob Gorge) 5-7, Team #6 (Ullrich) 5-7, Team #1 (Lahey) 3-9, and Team #7 (Miller) 0-12.

Teams for the outdoor Volleyball League are now forming. Interested employees may contact Angie Velasquez, ext. 3646 for the Recreation League, or Rose Muth, ext. 4445 for the refereed league. Play will begin the first week in June. The Recreation League will have a meeting on Wednesday, May 26 at 5 p.m. at the Village Barn.

In Memoriam

Charles LaGow, 1920-1984



Charles Robert LaGow died on April 12, 1984, at the age of 64. He is survived by his wife Nina, two sons, two daughters, and several other relatives.

A front-line fighter in World War II, he was Past Commander and a lifetime member of the Oswego American Legion Post #675, as well as Past Commander and chairman of the Kendall County American Legion. A member of many community organizations, he had been active in American Legion Baseball for the past 20 years.

Charlie had been employed at Fermilab as a Lead Repair Machinist since 1974. He was not only an extremely valuable and talented individual, but was also very well liked by his co-workers.

Ray Roth, 1927-1984



Raymond William Roth passed away on April 25, 1984, after a long illness. He had been on sick leave since May 5, 1983. Ray's friendly disposition will be sadly missed by his co-workers who had known him since the very beginning of the Laboratory.

Ray started work here as a draftsman for the Beam Transfer group in the early seventies. He later transferred to Technical Services and then to the old Neutrino group. Since 1982, he has been a member of the Mechanical Support group in the Experimental Areas Department.

Ray's immediate supervisor, Ernie Villegas, commented that Ray's excellent design abilities and well organized approach to his problem-solving techniques made him a valuable employee to the Laboratory and earned him the respect of all who worked with him.

Congratulations To . . .

NALREC TO HOST HAWAIIAN NIGHT

Saturday, June 2, 1984, NALREC is sponsoring a Hawaiian Luau. It will be held east of the Users Center and in the Village Barn. Activities will include, a cash bar 6 p.m. - 7 p.m., a buffet 7 p.m. - 8 p.m., Hawaiian entertainment 8 p.m. - 9 p.m. and dancing in the Barn 9 p.m. - 12 a.m. Included on the menu are roast pig, corn on the cob, and many other items.

Tickets are \$9 per person and must be purchased by Friday, May 25, 1984. Tickets may be purchased from Marilyn Smith ext. 3353, Bob Shovan ext 4347, or Alma Karas ext 3387.

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