The Village Crier

fermi national accelerator laboratory

Operated by Universities Research Association Inc.
Under Contract with the Energy Research & Development Administration

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10th ANNIVERSARY ISSUE

10 years ago yesterday, we were born.

On June 15, 1967, about a dozen courageous persons gathered on the tenth floor of the Executive Plaza building in Oak Brook, their voices echoing in the vacant, unfurnished area of the building. Their mission was to launch construction of the National Accelerator Laboratory, a high energy proton accelerator of 200 BeV energy commissioned by Congress through the Atomic Energy Commission. The pioneers persevered...and succeeded.

NAL, later renamed "Fermi National Accelerator Laboratory," or Fermilab, completed major construction in 1972, a little more than three years after groundbreaking. Building ended ahead of schedule, $6.5 million under the $250 million appropriation and with 400 BeV, double the design proposal energy.

Today, Fermilab is a symbol of achievement in world high energy physics research. Last May, Fermilab continued as the world's most powerful atom smasher when 500 BeV was achieved in the Main Ring. Laboratory employment has grown to 1,350 people in addition to some 1,000 experimenters from 80 U.S. universities and 20 foreign nations. Published scientific papers, reporting Fermilab experiments, have added significantly to the study of the forces of nature.

For the future, increases in accelerator energy and expanded research capabilities are envisioned. The Doubler/Saver project's goal is to achieve 1,000 BeV while cutting electrical power costs 50 percent. Colliding beams of particles are another exciting possibility under investigation.

Fermilab today is both achievement and potential. The road from the design proposal to its accomplishment was a long one. Our greatest achievement so far has been a substantial contribution to our understanding of particle physics; our greatest potential is the physics yet to be done; our tradition is being created by people with an endless reserve of readiness to try to do the impossible.

This issue of THE VILLAGE CRIER commemorates Fermilab's first days. For a look at us in words and pictures, ten years ago, please turn the page...

NATIONAL POLICIES AND STRONG DECISIONS DETERMINED THE START OF THE NEW RESEARCH FACILITY

The strong role played by the United States government in the financial support of basic science continued after World War II. Public sentiment supported the general belief held by scientists that the technological future of the United States depended strongly on the amount of support provided to scientists concerned with increasing fundamental knowledge.

The U.S. Atomic Energy Commission in 1963 turned for guidance to a panel of U.S. scientists led by Norman Ramsey of Harvard University when the Commission pondered the future direction which its support of high energy physics should take. The Ramsey Panel's recommendations were adopted and incorporated into a "Policy for National Action in the Field of High Energy Physics," published by the AEC in 1965. The recommendations had a strong influence on the formation and organization of Fermilab.

In addition to making specific recommendations about both short and long range technical steps to be taken, the report also spelled out carefully the national representation which must accompany the administration and operation of the new facilities. It went on to suggest "that a method of management which has been suggested is that a group of universities...form a national corporation which would be given responsibility for the operation of the national facility."

In June, 1965 Universities Research Association Inc. (URA) was formed by 34 major research universities. Its purpose was to provide the "broad national basis for the management" of the new accelerator and similar unique facilities in other fields. Norman Ramsey has served as president of the corporation for most of its life.

The AEC announced early in 1965 that it was soliciting proposals for a site for a giant new accelerator -- the No. 1 technical recommendation of the Ramsey Panel. The Commission was flooded by a surge of nationwide interest. Some 125 proposals were submitted within a short period of time, turning the site selection into such a formidable task that the AEC sought help from the National Academy of Sciences which sent a committee to assist. Not only were visits to each of the proposed sites made, but hard-

Open Office Today in Oak Brook for Weston A-Smasher

By DAVID YOUNG

Advance headquarters for the proposed Weston atom smasher will be set up in Oak Brook, a spokesman for the Atomic Energy commission said.

Staff members from three organizations connected with the design and planning for the 200-billion-electron-volt accelerator will begin moving into offices in the Oak Brook Executive Plaza, 1301 W. 22d st., today, the spokesman said.

The three organizations are the Atomic Energy commission; the National Accelerator laboratory, which is the official name for the atom smasher; and D.U.S.A.F., a combine of five firms connected with architectural and engineering

CONGRESS GO-AHEAD

Elated Kerner As Research C

By Jerome Watson

Gov. Kerner Friday hailed the selection of Weston as the site of the world's biggest atom smasher as a "major breakthrough" in Midwest efforts to obtain federal science activity.

Kerner's enthusiasm was matched by that of Mayor Daley, who said the new accelerator, coupled with facili-

89th Congress
1st Session

JOINT COMMITTEE PRINT

HIGH ENERGY PHYSICS PROGRAM: REPORT ON NATIONAL POLICY AND BACKGROUND INFORMATION

JOINT COMMITTEE ON ATOMIC ENERGY
CONGRESS OF THE UNITED STATES

HOUSE APPROVES WESTON

GROUP OKS ON WESTON

Daley See Area enter Of World

sell campaigns were the order of the day as communities and regions sensed the drama and significance the new facility would bring.

The State of Illinois worked very hard to capture the new institution. It agreed to provide sufficient land; it proposed two sites which offered ample water and electrical power as well as proximity to an international airport and major universities. The Committee narrowed the list to six sites: In California, at Denver, at Madison; the Brookhaven site on Long Island, another at Ann Arbor, and Weston, Illinois.

The AEC's decision was announced on December 16, 1966. Weston, Illinois (pop. 400) assumed its historic place in international annals. The entire village was but a fraction of the 6,800-acre tract donated by the State of Illinois to the federal government for construction of the new laboratory.

Some serious questions arose about the Laboratory's prospects in the first months of 1967 as the Weston site became the lever for pressing for fair housing legislation in Illinois. Discussions about discrimination and racial problems went on in Washington, D.C. in almost as much detail as the technical organizations and plans for the accelerator!

A trimmed version of the original design proposal of the "Berkeley group" emerged from Congressional committees in attempts to stay within a reduced cost estimate of $240 million.

Universities Research Association Inc. immediately entered into a prime contract with the AEC and selected Robert R. Wilson, then director of the Laboratory for Nuclear Studies at Cornell University and a trustee of URA, as director of the new laboratory. He was joined by Edwin L. Goldwasser as Deputy Director. Goldwasser, a professor of physics at the University of Illinois, was also a URA trustee, a member of the Ramsey Panel, and a member of the site selection committee.

STATE OFFERS CHEAP POWER FOR A-DEVICE

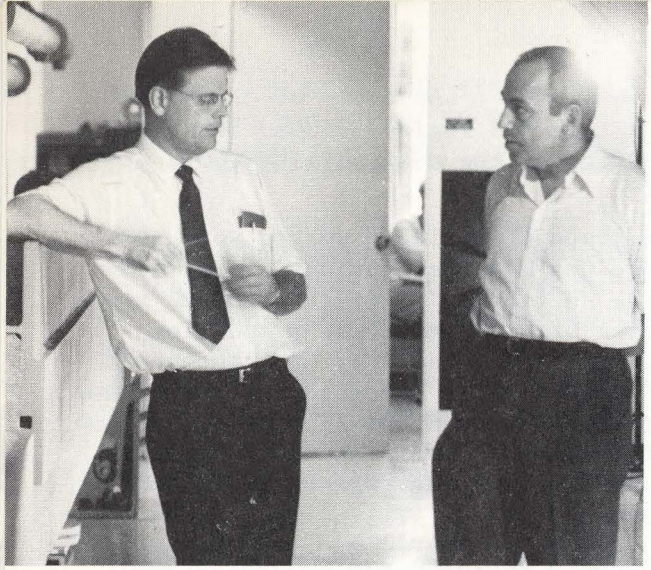
Top Contender for Smasher

BY RONALD KOTULAK

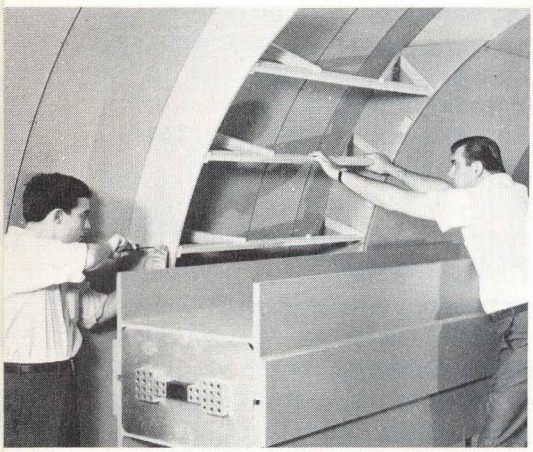
Illinois secured its position as the number one contender for

Protest marchers stretch along Batavia Rd. as they approach Weston after walking nearly 2 miles from Warrenville. (Sun-Times Photo by Duane Hall)

300 In Fair-Housing March To Weston; No Incidents



...R. Wilson, E. Goldwasser...



..J. Poces, R. Bergman building models of accelerator tunnels...

...Oak Brook Executive Plaza...

STRONG LEADERSHIP, TALENTED PEOPLE BROUGHT THE PLANS TO REALITY

Looming immediately before the new organization -- named the "National Accelerator Laboratory" -- as the year 1967 began, was the preparation of a document known as "Schedule 44 -- Construction Data Sheet," due to be submitted to the Atomic Energy Commission by September, 1967. It was the official document setting forth the scope and estimated cost for an AEC-funded project and defining the parameters of the accelerator.

Seeking an office location for the task force, it was clear that it must be close both to Weston and to O'Hare Field to accommodate the national and international traffic of physicists and engineers that would be required to get the project underway. In early 1967 a single tower of the Oak Brook Executive Plaza stood on Cermak Road across from the Oak Brook shopping center. There were no other buildings near it and the tenth floor gave a clear panorama of the flat Midwest farmland all around it. This became the headquarters for the new laboratory.

Spectacular thunderstorms and sunsets inspired the accelerator pioneers who came to barren offices on June 15, 1967. There were no office partitions during the first few weeks; telephones sat on the floor. Some ancient wooden desks and chairs finally arrived. But there was a conference room with a large chalk board in use continuously during most of the days and many of the nights.

Undaunted by a bitter site selection controversy, the scientists held firm to their vision and dedication to producing an instrument that would bring a new era in high energy physics. The Berkeley 200 BeV Design Report was the starting point, but the final results clearly bore the Wilson direction. The revised design included the capability of later achieving as high an energy as 500 BeV, at minimal additional cost; the construction time schedule was greatly reduced.

Experienced accelerator builders said that the design, cost estimate and schedule would be impossible to meet. But the challenges were met. The accelerator was built on time, below the Congressional appropriation by $6.5 million and has operated reliably at an energy of 500 BeV.

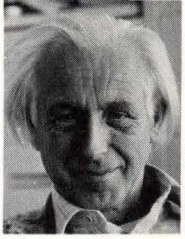
IN THE BEGINNING.....

On the first day of the Laboratory's existence, a few members of the staff and of associated organizations gathered together on the nearly empty tenth floor of the Oak Brook Executive Plaza. They were: F. T. Cole, T. L. Collins, C. Curtis, D. R. Getz, E. L. Goldwasser, J. Luniak, A. Maschke, D. Poillon, A. L. Read, R. R. Wilson and D. Young, from the Fermilab staff. From the AEC: F. Mattmueller, L. Mohr, M. Sanders. From DUSAF: W. Alexander, M. Warner and Parke Rohrer. William Brobeck was Consulting engineer.

Among the other "pioneers" who joined the Laboratory that first summer and fall, the following still serve:

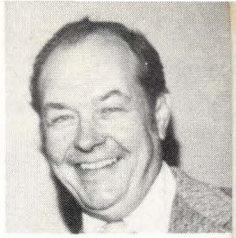
A. M. Frelo
A. M. Gonzales
L. H. Hardy
C. Hines
W. R. Jones
Q. A. Kerns
G. M. Lee
P. V. Livdahl
C. Marofske
J. E. O'Meara
C. W. Owen
M. L. Palmer
J. Plese
R. K. Rihel
A. Roberts
C. M. Sazama
A. Skraboly
D. L. Smith
S. Snowdon
L. J. Sobocki
D. Sullivan
L. C. Teng
G. S. Tool
R. H. Wagner
J. Wildenradt

F. Cole

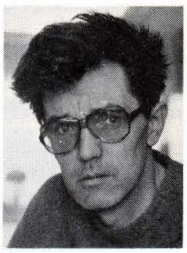


T. Collins

C. Curtis



F.Mattmueller

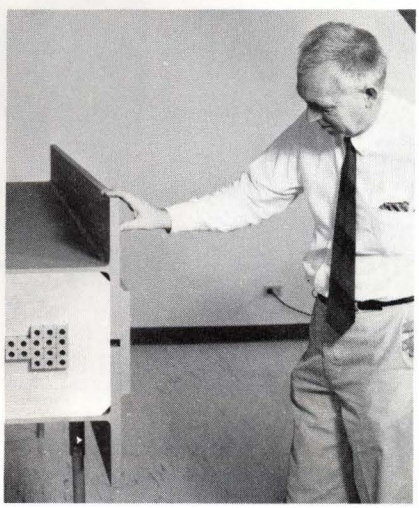


A. Read

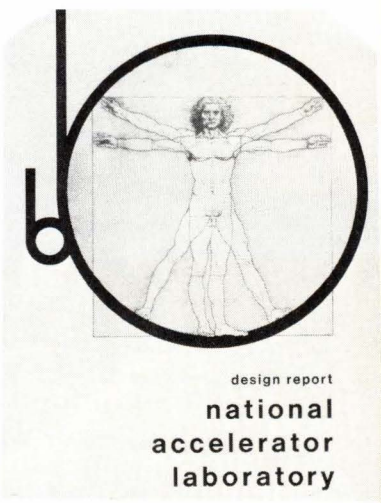
M. Sanders

D. Young

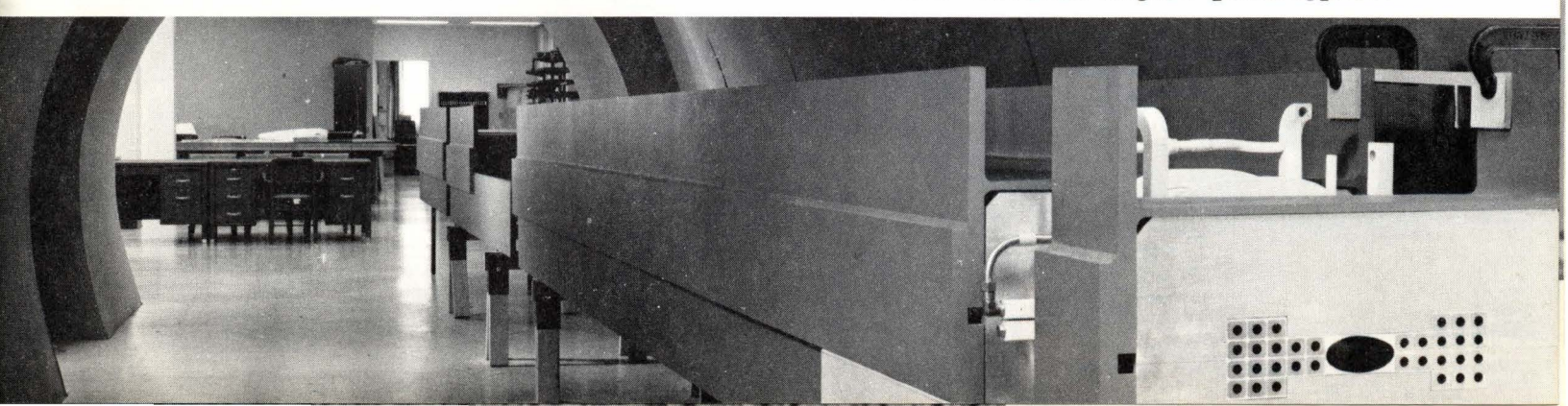
...Staff meeting at Oak Brook...



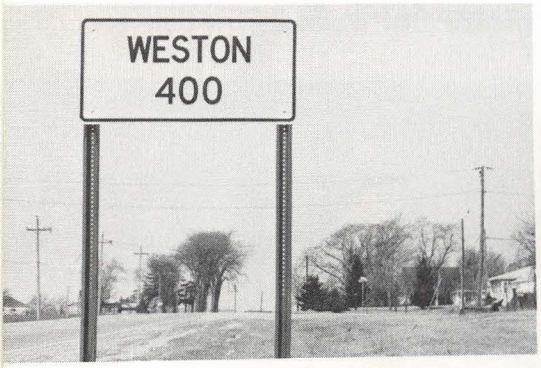
...The first office at Oak Brook...



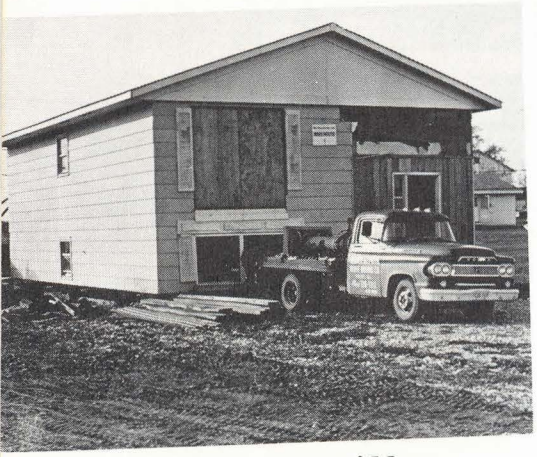
...T. Collins, magnet prototype...



...The Village of Weston on the eastern edge of 6,800 acres donated by the State of Illinois...

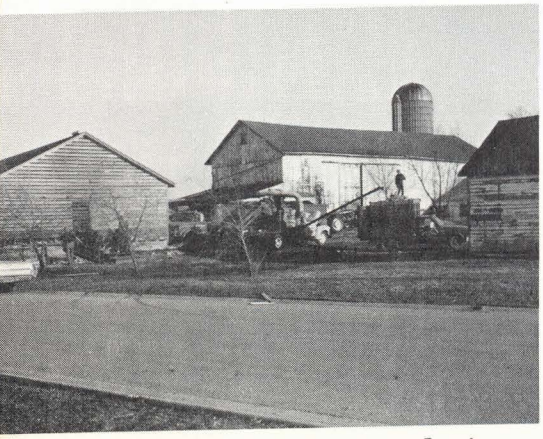


...Batavia Road entrance to Weston, 1967...

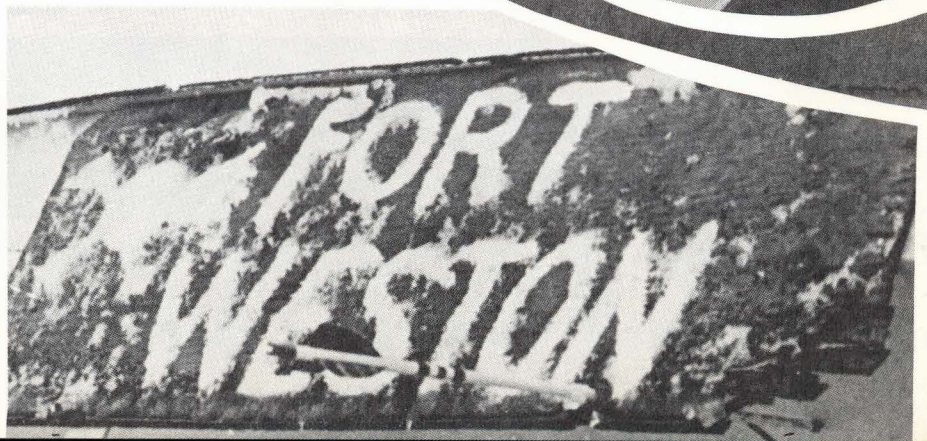


...Re-arranging the village in 1968. This house became the Curia meeting room...

...Pioneering spirit of linac group was evident as they moved to Weston...



...A last harvest stored at Kuhn Farm, 1968...



The rich farmlands of the Midwest have been transformed into an institution that will reap a rich scientific harvest. Scientists from all over the world come here seeking to understand the fundamental structure of the universe.

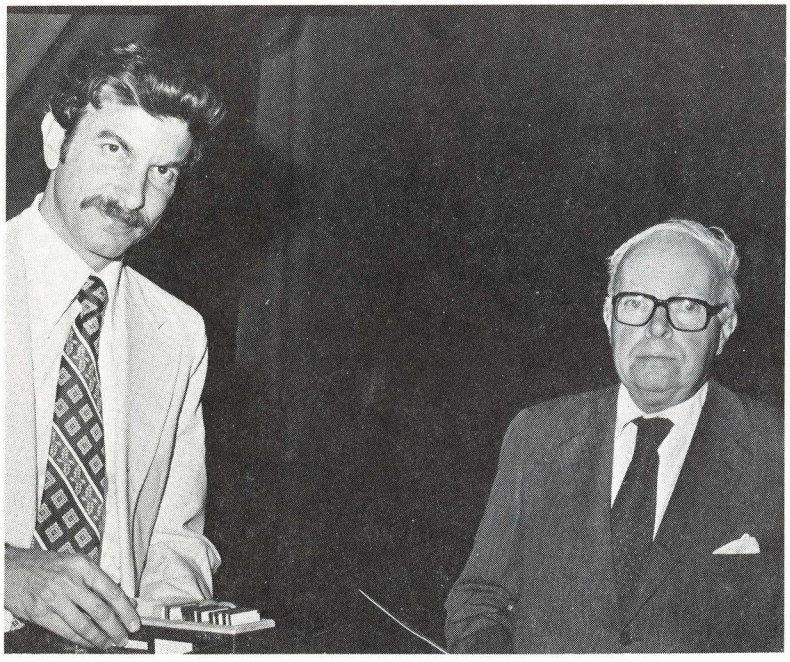
...The Hadley farmhouse, occupied by the Wolsfelds, on Eola Road, is now part of Aspen East...

...Fermilab, 1977...

...Charles Turner farm on Batavia Road, home of descendants of early settlers, the Molitors...

THE FINE ARTS QUARTET. . .

. . . will perform at 8:30 p.m. Saturday, June 9, in the Fermilab auditorium. Tickets ($3) are on sale at the Guest Office. All seats will be reserved. Featured artists will be: Leonard Sorkin and Abram Loft, violinists; Bernard Zaslav, viola; and George Sopkin, cello. A program of Haydn, Beethoven and Shostakovich will be presented. An internationally famous group, the quartet is considered by major critics throughout the world as one of America's best string quartets. They appear in Chicago and the area annually in series that are usually sold out. Only prepaid tickets will be held at the door. For information or reservations, contact the Guest Office, CL-1W or phone Ext. 3440.



...J. Appel (L), Chairman of Lecture Series, and J. D. Cooney, Tut lecturer...

KING TUT AND HIS TREASURES

Small personal items -- selected by King Tut's queen for his burial chamber -- are our only clues to him as a man, a distinguished Egyptologist told a Fermilab audience June 3.

Giving a slide lecture on "Tutankahmen, the Man and His Possessions" was John D. Cooney, research curator, Cleveland Museum of Art. He opened a 1977-78 Fermilab auditorium lecture series on the theme, "Science and Humanities." The new program, following a successful Bicentennial lecture series, is again made possible by a grant from the Illinois Humanities Council and the National Endowment for the Humanities.

"King Tut is the most obscure of Egyptian kings," Cooney said. He noted that scientists are still trying to determine details of his reign, his parents' identities and other facts of his life. The speaker recounted discovery of King Tut's tomb in 1922, after wealthy American Theodore M. Davis began the search in 1900 only to abandon it 12 years later.

Among the pharaoh's possessions were: a rhinestone statue of the king as a boy, indicating that he was an ostrich hunter; Tut's favorite armchair of ebony inlaid with ivory; suede gloves; a dog doll in black bronz, inlaid with gold; an ivory chariot whip handle; plus jewelry and alabaster objects including a lamp.

* * * * *