


The Village Crier

 national accelerator laboratory

Operated by Universities Research Association Inc.
Under Contract with the United States Atomic Energy Commission

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PROGRESS REPORT - JUNE 11 THROUGH JUNE 25, 1972

The accelerator has operated satisfactorily since June 8 providing 200 BeV beam to the Neutrino Laboratory. After an initial test run of over 5,000 pictures taken with 35mm cameras, an additional 37,574 pictures were taken with the 70mm stereo camera system on the 30-inch Bubble Chamber during the running period of June 1st to June 25th.

During a 3-day shutdown beginning June 26, computer improvements in the control systems were instituted. A search was made of the Main Ring vacuum chamber for obstacles that might account for beam loss. The hydrogen gas target for Experiment 36 was installed in the Main Ring.

FIRST 200 BeV TRACKS IN 30-INCH BUBBLE CHAMBER!

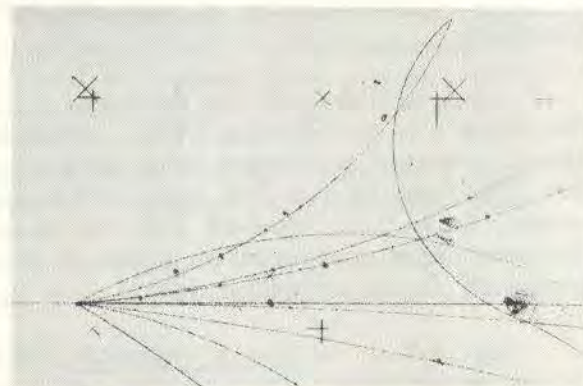
The fifth anniversary of the National Accelerator Laboratory on June 15, 1972, was highlighted by the display of the first photos of 200 BeV tracks in the 30-inch Bubble Chamber. Announcement of the successful run of the beam, which occurred about 5:45 a.m. on June 15, was made by NAL Director Robert R. Wilson at a meeting for the 950 employees of the Laboratory. "It means that we're in business," he told the group. "The whole Laboratory is now being exercised."

Ernest Malamud, head of NAL's Internal Target Section, announced that one million elastic scattering events had already been observed at the internal target positioned in the Main Ring vacuum chamber at Building C-0 as part of Experiment No. 36. "We are doing very significant experimenting now," Dr. Wilson commented. "This is becoming a physics laboratory and we can talk about the discoveries that will be made here."

Dr. Wilson also outlined the immediate goals in the continuing NAL development program, such as increasing beam intensity by a factor of 1,000 and bringing all experimental areas into operation. "Our success from here on will be measured by our efforts in these directions," he said.

The Bubble Chamber success came after a week of sustained efforts that began June 8 when the first 200 BeV beam was handed off to the Neutrino Laboratory from the Switchyard. (On May 29, 72 BeV particles went through the Neutrino Line in an initial test.)

With the main accelerator operation now consistently reliable at 200 BeV, the tuning of the Neutrino line at the higher energy became the highest priority assignment at NAL. For the Neutrino Laboratory staff, day and night hours became one thing. Deeply engrossed in the intense efforts, many found it difficult to break off even for sleep; twenty-two hour shifts were not uncommon among the physicists. One reported finding a fellow physicist parked along Butterfield



...One of the first photographs taken with the 30-inch Bubble Chamber at NAL June 15, 1972. A 200 BeV proton enters the Chamber and interacts with the liquid hydrogen; resulting collision produces a spectacular event with ten visible nuclear fragments emerging; tracks are nearly 30 inches long...

(Continued on Page 2)



...NAL employees gathered outside the Curia on Thursday, June 15 for Director's meeting...

Photo by Tony Frelo, NAL

Road after one of these long stints, who commented simply, "My car ran out of gas and so did I."

The NAL Neutrino Line is 1½ miles long. Adjustments are possible, and likely to be necessary, at any one of ten buildings on the Line. Systematic, patient analysis of progress and problems is the key to success. The sport of the job was reflected in the simple jubilation of the entry in the log book at 0545 on June 15, 1972: "Got him!"

By Monday, June 19, after a period of several days of "cleaning up" the tracks, staff members were able to record in the log: "Looks Good," as they accumulated the first complete roll of film of photographs of the 200 BeV beam passing through the liquid hydrogen in the Bubble Chamber.

As described in the December 2, 1971 issue of The Village Crier, the Chamber was moved to NAL from Argonne during 1971. Studies of the interactions of particles that are recorded on the first test pictures have already begun. Researchers from approximately thirty laboratories are involved in the ten approved experiments which are now planned for this area. The first of these, Experiment Number 141, is already underway with pictures of 200 BeV proton - proton collisions being measured on a round-the-clock basis at the Argonne National Laboratory as the experiment is in progress at NAL.

According to Louis Voyvodic, physicist in charge of the 30" Chamber and a participant in the first experiment, "The tracks and interactions seen in the chamber on the morning of June 15 were a beautiful sight, both scientifically exciting and aesthetically striking.

NEUTRINO LABORATORY PHYSICISTS

"It was also satisfying to watch the enthusiasm and feeling of fulfillment, after years of effort, as physicists, engineers and technicians from the accelerator, from the beam lines and from the Bubble Chamber areas took turns viewing the tracks flashing away in the Chamber."



F. NEZRICK S. PRUSS W. SMART R. STEFANSKI T. TOOHIG W. FOWLER R. HUSON J. LACH
L. VOYVODIC R. WALKER T. YAMANOUCHI

GOOD NEWS FOR NAL FISHERMEN . . . NAL employees may now fish for catfish, bass and blue gills in the waters on the NAL site. Catfish averaging 3-4 lbs. have been planted in the lakes west of Batavia Road from the Village, as well as bass, five to nine inches, and two to five-inch blue gills. A few of the latter two will be found in the pond in the Village, but not the catfish. Fishermen are advised not to drive off the main roads but to park at the farm site nearest the waters. State fishing licenses will be required and state fishing regulations will be in force at all times.

K. C. BROOKS TO RETIRE JUNE 30

The tall, distinguished-looking gentleman who has headed the Atomic Energy Commission's office on the NAL site since July of 1968, will retire on June 30. Kennedy C. Brooks ("K.C." to all) will end a career that began in 1935 with the U.S. Corps of Engineers. His service with the AEC started in 1946 at Oak Ridge, Tenn.; he transferred to Paducah, Ky. in 1951, and to the AEC headquarters, Washington, D.C., in 1962 until he came to NAL.

K.C. and his wife, Jean, will move to Florida later on this year. Their son, Kennedy, and his wife, reside in Washington, D.C. Son Andrew will enter Stetson University in Deland, Fla. next Fall. The Brookses are planning a visit with friends in Ireland next Spring, then will travel around the globe to New Zealand in the Fall of '73.

The Chicago operations office of the AEC sponsored a farewell party for the Brookses on Friday, June 24. At the party, Mr. Brooks was presented with a shillelagh by Dr. Robert R. Wilson. Dr. Wilson also announced that he is naming the reservoir north of the Meson Lab "Casey's Pond."

A man of quiet dignity, loved and respected by all who work with him, K.C.'s broad range of experience contributed much to the success of NAL's construction. But the satisfaction is mutual. According to K.C., "I've certainly been fortunate to end my career on a project such as this. It has been a real privilege to help Bob Wilson build this laboratory."

And what does K.C. hope will be accomplished at the laboratory he helped build? "I hope you will be able to use this machine to get closer to the cure for cancer...I think this is very possible."

The best wishes of the NAL staff go with the Brookses as they launch their second career.

FIFTH ANNIVERSARY LUNCHEON

The four architecture-engineering firms comprising the DUSAF joint venture commemorated the fifth anniversary of association with the National Accelerator Laboratory at a luncheon at Pheasant Run, St. Charles, Ill. on Thursday, June 15th. Among the guests (in the photo at right) were (L. to R.) Col. Wm. D. Alexander, DUSAF Project Director; Norman Ramsey, President of Universities Research Association, Inc. of Washington, D.C.; Robert R. Wilson, NAL Director. DUSAF member firms are: Daniel, Mann, Johnson, and Mendenhall of Los Angeles; the office of Max O. Urbahn of New York City; Seelye, Stevenson, Value and Knecht, Inc., of New York City; and George A. Fuller Company, a Maryland Corporation.

...Photo by Tony Frello, NAL



...Jean and K. C. Brooks at farewell party on June 23...

Photo courtesy A. Mravca



NAL SOCIAL CALENDAR

Friday - July 7

The Go-Go White Sox with Rich Allen are making new baseball headlines. Join the bus trip from NAL for the Sox-Detroit game. The bus will leave the NAL Village Cafeteria at 6:30 p.m. Tickets at \$4.00 each include box seats, bus fare, and light refreshments. Tickets are available at Personnel, 21 Sauk, in the Village or call Paul Davis, Ext. 242, for tickets and further information.

Sunday - July 9

A trip to a Ravinia concert at a bargain price is being offered by NAL-REC. Arthur Fiedler will be conducting the Chicago Symphony Orchestra. The program will also feature Dizzy Gillespie and a jazz quintet.

Busses will leave the cafeteria at 6:00 p.m. NALREC representatives in all sections have tickets or call Mildred Meyer, Ext. 396 for further information.

DeLUCAS IN MIDST OF CRISIS

Fellow employees and friends of Bill DeLuca (Accelerator Section) share his concern for his wife, Debbie, as she undergoes a kidney transplant at the University of Minnesota Hospital. Debbie is also a diabetic. Anyone interested in helping in any way should call Carl Swoboda (Ext. 782) or Cathi Beyer (Ext. 701). They also have Debbie's address for mailing cards.

BEST WISHES

Mr. Fu Tak Dao of the NAL Film Analysis Facility group and Miss Mary Cheng will be married on July 1 in Lexington, Mass. The couple will be residing in Chicago where Mary will attend the University of Chicago.

NEW MEMBERS OF THE NAL FAMILY

A baby girl, Christy Veneé, born on May 22 to Theresa and Lou Kula (15' Bubble Chamber) at Resurrection Hospital, Tacott, Ill.

Baby girl, Renee, born May 29th, to Mary Jane and Steve Johnston (15' Bubble Chamber) at Central DuPage Hospital, Winfield, Ill.

NAL SOFTBALL LEAGUE SCORES: R.F. 13 - Linac 2; Internal Target 10, Receiving 8.

The next issue of THE VILLAGE CRIER will be on Thursday, July 13, 1972.

CLASSIFIED ADS

- FOR SALE - Cornet w/case, new, \$250 or best offer. Call H. Branch, 879-2900, Ext. 252.
- FOR SALE - '70 Opel Gt, red, A.T. R.H. Dis-brakes, \$2,000. Call Tony, Ext. 786 or 858-5250 after 6.
- WANTED - Men's three-speed bicycle. Call John Whittaker, Ext. 550 or 519.
- FOR SALE - Plymouth-Valiant (1965) 2-dr., air-conditioned, ps & pb, new w/w tires, carpeted, bucket seats, \$400 or best offer. Call Fran, Ext. 560.
- FOR SALE - Twin bed & mattress, \$10; boy's spider bike w/banana seat, \$20; Murray tricycle (one pedal missing), \$5; child's red plastic seat for mounting on adult bike, \$8; bike book carrier, \$2. Contact Rene Tracy, Ext. 278.
- FOR SALE - '62 Ford 6 cyl. automatic, \$100. Call Ken, Ext. 555 or 584-2977 after 5:00.
- FOR SALE - Admiral 14,000 BTU 110 volt window air conditioner, \$200. Call Garry Scott, 879-2900.
- FOR SALE - Wheel Horse Elect. Start 8 hsp. 32" cutting swath duel blades riding mower tractor, \$300 or best offer. Call 469-8659, ask for Dan.
- FOR SALE - '66 Pont. Cat., 389 Eng., auto., ps, pb, \$650 or best offer. Call Ernie, Ext. 210.
- FOR SALE - '70 Chevy, Impala, 2 dr, auto., good cond., \$2,225. Call Sue, Ext. 585 or 897-1633.
- FOR SALE - '65 GTO, 4spd, tri pwr, posi, 1 owner, \$290; dune buggy, Manx, new parts, \$990; VW Manxpower eng., 85 hp, 1600 CC, Zenith carb. rev 22 cam, \$490, call Joan, Ext. 461.

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