June 3, 1971 Vol. 3 No. 22

BOOSTER ACHIEVES FULL DESIGN BEAM ENERGY OF EIGHT BeV

Another and a major milestone was achieved by the Booster section at approximately 2:20 a.m., Friday, May 21, when the Booster achieved its full design beam energy of 8 billion electron volts for the first time.

The Booster is the second major accelerator in series used to accelerate protons in the NAL system. It is a rapid-cycling synchrotron approximately 500 feet in diameter.

The milestone was achieved under the direction of Helen Edwards, Booster section chief.

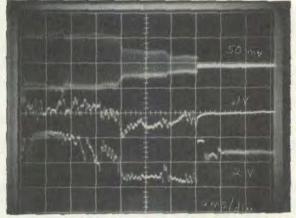
Among others present were Harlan Gerzevske, Bob Peters, Ed Hubbard, John Sauer, of the Booster section, Curtis Owen, Jim Walker, Gerry Ortlieb, and Les Wahl of the Linac section. They were joined later in the early morning hours by Al Maschke, Bob Daniels and RRW.

Also on hand in the West Gallery at the time of the Booster milestone were several members of the Radio-Frequency staff who were tuning the high level R.F. to its maximum power, including Quentin Kerns, Gerald Tool and Stan Tawzer.

The machine had been turned off the previous day for repairs and maintenance. It was turned on at about 8:00 p.m. on Thursday, May 20, and the energy gradually built up to the 8 BeV design level.

After the achievement, a party to observe the occasion was held by the Booster and Meson groups. The affair also served as a "farewell party" for Roy Billinge, who had served as head of the Booster

section until recently when he took over direction of the Meson group. The Meson group consists primarily of people who were in the Booster section during its construction and they



.... Scope display of first Booster beam to 8 GeV. Upper trace is beam

intensity; middle trace is beam po-

sition; lower trace is beam pulse.



... MONITORING THE BOOSTER BEAM: Alan J. Maier and Mark J. Kibilko (left to right) at the control panel during the first full week of Booster operation as it prepares to inject a beam into the Main Ring....



....AT THE CONTROL PANEL: Ed Hubbard, Harlan Gerzevske, and Helen Edwards, all of Booster, (left to right) show their pleasure at the achievement of Booster's full design energy Photos by Tim Fielding, NAI at 8 BeV....

BOOSTER ACHIEVES FULL DESIGN BEAM ENERGY OF EIGHT BeV - (Continued from Page 1)

still aid in fabrication of special magnets. Billinge has accepted an appointment at Geneva, Switzerland, where he will become a member of the team assigned to develop and construct the new 300-GeV particle accelerator sponsored by the European Organization for Nuclear Research (CERN).

On December 14, 1970, the Booster section installed the last of 96 magnets in its "circle." At about 12:30 a.m., Saturday, January 23, 1971, a proton beam was injected from the Linac and "coasted" around the entire Booster accelerator ring for the first time. Protons were accelerated to 1 BeV in the Booster at 6:00 a.m., Saturday, February 6, 1971, a notable milestone for both the R.F. and the Booster sections.

Almost all of April was spent in a shakedown period on the Booster. The magnet power supply operated with good reliability and experiments were performed to accelerate the beam and give a 2 BeV beam to Beam Transfer for tune up. Most of the work was aimed toward achieving stable operation of the high power rf systems and on bringing the phase and radial feedback loops of the beam-controlled low-level rf system into operation.

Meantime, the Main Accelerator staff was busy tuning and coasting a low-energy proton beam from the Booster into the completed sectors of the Main Ring. At 7:10 a.m., Saturday, May 29, the beam had reached the B-21 point in the largest component of the NAL accelerator system.

As the power supply testing is underway, the Main Ring tunnel is being secured every night. Four two-man teams complete the search and close the interlock chains in approximately 90-minute periods.

20 SIGN UP FOR NAL RIDING CLUB ACTIVITIES

Twenty NAL employees have signed up to take part in the Indian Creek Riding Club, which has received an authorized license to operate on the NAL site. Dues are \$5 per month for members and their immediate families plus a donation of eight hours a month in labor to help get the program underway. A fee of \$45 per month will be charged for boarding horses.

The first group of horses is now on the site for NAL employees to ride. These horses, obtained through a local riding stable, will be available for rental to NAL employees at the rate of \$2.50 per hour. They will be housed at Indian Creek Stables on Eola Road (Farm Site 56).

Gerry Reid, Plant Modification, is one of the first NAL employees to bring a horse to the club's stable area, where the corral has been erected and the pasture area completed. Stalls are under construction.

Plans are being made for a "Trail Ride" and "Hayride" as well as a dance, on Saturday, June 26. Refreshments and food will be served. Details will be announced later.



...Sam Rumple "welcomes" first riding club horses ... Photo by Fran Pisarek

Riding Club co-chairmen for this year are: Mrs. Sandra (Sammy) Rumple, Public Information; Carlos M. Velasquez, Beam Transfer; Jack Riffell, Receiving. Gerry Reid is secretary, and Bernie Lensmeyer, Cafeteria, is treasurer.



....NAL Bowling League winners and their trophies at the annual banquet....

Photo by Tony Frelo, NAL

NAL BOWLING TEAMS HONORED

The 1970-71 NAL bowling season has ended and the winning teams were honored recently at a buffet dinner in the NAL Village Barn. Twelve teams took part in the season play and the matches were held at the Bowling Green Alleys in nearby West Chicago. Bob Wagner, of DUSAF, was master of ceremonies at the bowling banquet.

Following is a list of the winners: <u>lst Place Team</u>: <u>Joel Misek</u>, Main Ring, captain; <u>Dawn Chartrand</u>, Physics Research; <u>John Devine</u>, Contracts; <u>Mike Hitt</u>, DUSAF, and <u>Bob Wagner</u>, DUSAF. 2nd Place Team: <u>Garry Scott</u>, DUSAF, captain; <u>Dorothy Poll</u>, Personnel; <u>Al Guthke</u>, Beam Transfer; <u>Fony Winchester</u>, Main Ring; <u>Elbert Smith</u>, Radiation Physics. <u>3rd Place Team</u>: <u>Barb Schluchter</u>, Main Ring, captain; <u>Ed Podscheweit</u>, Main Ring; <u>Jim Edwards</u>, <u>Beam Transfer</u>; Helen Ecker, Technical Services: Norm Hill, Material Services.

Women's High Game: Carol Toenies, sister of Mary Toenies, Physics Research; Women's High Series: Mary Toenies; Men's High Game: Jack Jagger, Main Ring; Men's High Series: Jack Jagger; Most Improved Woman Bowler; Nancy Reid, wife of Gerry Reid, Plant Modification; Most Improved Male Bowler: Elbert Smith, Radiation Physics.

NAL SWIMMING PASSES STILL ON SALE

The sale of passes for the NAL swimming pool's 1971 season is continuing. Tickets may be obtained at Personnel, 22 Sauk, during regular working hours.

The prices are: \$20 for a season family pass including the purchaser and all members of his family; \$15 for a single person; \$4 for a weekly pass including the purchaser and all members of his immediate family; \$1 for daily admission including an individual person only. Persons not associated with NAL but who are guests of Laboratory-associated persons will be expected to pay daily admission rates.

The pool, located at the NAL Village Barn, formally opened for the season Saturday, May 29. For further information, please call Site Management, Ext. 494.

NALWO CALENDAR

The Gourmet group is planning a Spanish dinner for their next meeting. It will be on Saturday, June 5, at 7:30 p.m. For reservations call Mary Ann Ryk, 968-8651...The Sewing group meets on Thursday. For further information, call Greta, 232-0185.... The Annual June Tea will be held on Tuesday, June 8, at 1:00 p.m. at the home of Mrs. Robert R. Wilson.

PLAN LUAU AT NAL FOR SATURDAY, JUNE 19

A Luau for NAL employees will be held in the area of the Village Barn Saturday, June 19, from 8:00 p.m. to 12:00 p.m. Everyone should bring a pillow or something to sit on as low tables will be used.

Food will be served starting at 8:00 and there will be Hawaiian entertainment - including Hula girls - starting at 9:00 p.m. Music for dancing will be furnished by a Hawaiian band from 10:00 to 12:00 p.m. The pool will be open and there will be a cash

Tickets are \$4 per person and are available from members of the Social Committee and at the Cafeteria.

SOFTBALL GAMES THIS WEEK IN THE NAL VILLAGE

Thursday, June 3

5:30 - Machine Shop vs. Main Ring

7:00 - Physics Research vs. Radio Frequency

Tuesday, June 8

5:30 - Personnel vs. Physics Research

7:00 - Radio Frequency vs. Beam Transfer

CONGRATULATIONS !! to Mr. and Mrs. Reid Rihel on the birth of their son May 24 at the Hinsdale Hospital. Rihel works in the NAL Linac Section.

ATTENTION: NAL AMATEUR RADIO OPERATORS

NAL employees interested in amateur radio operations are invited to take part in the Field Day activities to be held on the NAL Site Saturday, June 26, and Sunday, June 27. If you are interested, please contact Jim Schluchter, Booster, Ext. 409.

CLASSIFIED ADS

FOR SALE - '68 Ford XL, P.S., P.B., Air, 2 dr. vinyl top, red and black, Firestone 500 tires, new. \$1,750 or best offer. Good condition, low mileage. Call Norva, Ext. 210.

FOR SALE - Waste King - Universal under-counter dishwasher. Needs repair, \$5.00. Will trade: 26" boy's bicycle for a girl's bicycle. Call 879-2974.

FOR SALE - 17 ft. outboard, 90 hp. mercury full canvas, trailer, skis, tach. compass, carpeting, spare wheel, propeller, 1 yr. supply oil, ready for water. Call John Semmelman, 469-4624.

FOR SALE - 4 yr. old dapple gray gelding Quarter horse, spirted, and full tack. \$300. Call Tim, Ext. 349.

FOR SALE - 5 slightly used 165 x 14 Pirelli tires and tubes for wire wheels. MGV accessories. Sawyer 35 m.m. projector. Call Vernon Kenney, 879-3953.

FOR SALE - 4' x 8' pool table with accessories, \$150. Call 357-4134.

FOR SALE - '69 Renault R-16 station wagon, radial tires, F.M. radio, 35,000 miles. Asking \$1,500. Call John Chonco, 6-3789.

FREE TO GOOD HOME - Fe. seal point Siamese, 11/2 yrs. old, papers included, de-clawed, Call 879-2379.

FOR SALE - '66 VW, sedan, Bahama blue, radio, very good cond. \$925, Call Ext. 284 or 355-7711.

FOR SALE - '66 Impala, 2 dr. ht. 283 stick, limited slip. Call Bob Oudt, Ext. 366.

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