

# The Village Crier



national accelerator laboratory

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## PROGRESS REPORT - SEPTEMBER 25th through OCTOBER 1, 1972

Beginning on Thursday, September 28th and continuing through the following weekend, the accelerator operated at 200 BeV, providing stable beam for several experiments in the Neutrino Laboratory and for the experiments in the Internal Target Section of the Main Ring. Cooldown of the 15-ft. Bubble Chamber is in progress.

### SWITCHYARD GROUP ACHIEVES MAJOR MILESTONE

(In April, 1972 the Village Crier studied briefly the extremely complicated equipment of the National Accelerator Laboratory Switchyard Section where the proton beam is extracted from the Main Ring and directed to one of the experimental lines. In just five months, this Section has brought all three experiment lines into operation. Edward J. Bleser who heads the section, reports here on the most recent achievement of the group.)



...Al Guthke and Jesse Guerra work on a scintillator screen and T.V. camera in the Proton Beam Line...



...Jerry Czop and Frank Juravic work on a vacuum pump in Enclosure H...

(Photos by Tim Fielding)

The most recent major new construction project of the Accelerator Section was commissioned on September 22nd at 3:40 a.m. when Bob Oberholtzer announced to the Main Control Room that a good proton beam spot was observed in the P-Central section of the Proton Laboratory. Since the primary proton beam had been extracted from the Main Ring and transported to the Neutrino Target Hall on April 21, 1972, and to the Meson Target Hall on September 6th, seeing beam in the Proton Lab meant that beam was available and that experiments could be initiated in all three of NAL's experimental areas, a very important milestone for the Laboratory. Seeing beam in the Proton Lab was also the occasion for much joy on the part of the Switchyard Group in the Accelerator Section, for it marked the successful completion of the installation of two-and-one-half miles of beam transport apparatus.

The mechanical work of installing the Switchyard was carried out under the overall guidance of John Simon, aided by Dick Andrews and John Grimson. Al Guthke was the floor boss and gave immediate direction to the crews installing the magnets, water lines, vacuum pipes and beam detectors. Jesse Guerra and Frank Juravic did much of the alignment work, while Jerry Czop was a vacuum expert. Magnets were prepared for installation in the Village by Joe Otavka, Terry Svejda, Theo Gordon, David Billingsley, and Dave Dewitt. Dick Krull and Butch Bianchi specialized in building the electrostatic septa for the extraction from the Main Ring.

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## SWITCHYARD GROUP (Continued)

The electrical design and installation was directed by Claus Rode with the aid of Jack McCarthy and Aage Visser. The work ranged from installing control systems utilizing the latest in microscopic integrated circuits to installing power supplies capable of transforming megawatts of A.C. power to D.C., and connecting them through miles of heavy copper cable to the magnets. Leon Bartelson gave immediate direction to the installation work, while Rich Janes constructed special power for supplies for extraction. Bob Oberholtzer and Joe Gomilar maintained the equipment, whether it was a massive power supply or a delicate control board. John Bockmier, aided by Johnny Geralds, cabled together the thousands of wires in the SWIC's (Segmented Wire Ionization Chambers) used to measure the beam position, while Larry Jackson, Larry Tate, and Pat Gorek looked after the T.V., radiation interlock, and control systems.

The overall design and operation of the Switchyard has involved many physicists over the past five years and is presently the responsibility of Ed Bleser, Les Oleksiuk and Gene Fisk. Many of the original ideas were developed in the former "Beam Transfer" Section under Al Maschke. Dick Mobley and Helen Edwards have also made valuable contributions.

The Switchyard area includes beam lines 5,000 feet long to the Neutrino Lab, 3,500 feet long to the Meson Lab, and 5,000 feet long to the Proton Lab. There are 130 dipoles and 50 quadrupoles installed in these lines, plus many small steering magnets. The beam detectors are presently scintillator screens viewed by T.V. cameras, but they will be replaced with a SWIC system which can be controlled by a computer. Other future projects in the Switchyard include a general up-grading of the alignment and control of the switchyard lines to prepare them for handling beams of much higher intensity than is presently available.

The most important project the Switchyard Group has underway is the installation of splitting stations, which will split the primary proton beam into multiple beams, enabling all the experimental laboratories to operate simultaneously. This project is quite far along in the design stage and parts procurement has started. The actual installation of the splitting stations in the Switchyard tunnels will involve a reworking of the presently installed lines and is still several months away. This represents a major effort calling for the construction and installation of 8 electrostatic septa, 14 Lambertson magnets and 15 steering magnets, and demands even greater care and precision of installation than was achieved in the installation of the Proton Line, whose prompt operation was proof of very fine workmanship.



...Leon Bartelson at the MAC-16 computer in the Transfer Hall...



...Jack Johnson (Proton Lab) and Joe Otavka checking construction plans in Enclosure H...



...In the Main Control Room Bob Oberholtzer makes a move which causes Jack McCarthy great pain...



...Les Oleksiuk and Claus Rode at work designing the triple splitting station in Enclosure H...

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(Photos by Tim Fielding, NAL)



## NAL SEEKING MINORITY VENDORS

Members of the NAL Procurement staff represented the Laboratory at the fourth "Chicago Business Opportunity Fair," held September 15th and 16th at the Conrad Hilton Hotel in Chicago. The fair is unique in that buyers solicit the interest of minority suppliers rather than the reverse, as at traditional trade fairs. The fair, therefore, represents the efforts of businesses in the Chicago area to meet in one place so that minority vendors may make contact easily with the most obvious opportunities for obtaining business.

NAL is also participating in the recently-organized Minority Purchasing Council, a new minority purchasing program for Chicago, endorsed by the Department of Commerce and President Nixon. At a recent luncheon in Chicago, two hundred business and civic leaders participated in plans to encourage and assist in the adoption of corporate policies emphasizing the use of qualified or qualifiable minority suppliers, and setting specific goals and timetables for corporate minority purchasing programs. Richard A. Auskalis, head of NAL Procurement, represented the National Accelerator Laboratory at this meeting.

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## GET YOUR MONEY'S WORTH!

Roger Thompson, NAL Librarian, reports that the Library is a member of the Consumer Division of the Chicago Better Business Bureau. A number of texts and periodicals on consumer education are now available in the library, published by the BBB.

The service also entitles NAL employees and library users to use of a special telephone line to the BBB by which special consumer information can be obtained. If you are interested, talk to Roger Thompson, Ext. 401.

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## ANNUAL FLU SHOTS AVAILABLE

It's that time of the year again! Cold, damp weather is around the corner bringing with it everyone's enemy, FLU. To combat this ever-present force, free flu shots are available at both First Aid locations (Village and Central Lab area). If you haven't had these shots for the last two years, you will now require a series of two. If you had shots last year, you only need one booster shot. No appointment is necessary. Come at your convenience and merely expose your arm to the nurse for a few seconds. Additional information may be had from Dorothy Poll at Ext. 232.

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## TIME TO "THINK SNOW" AGAIN

The Fox Valley Snowdrifters Ski Club is now beginning its 12th year of skiing fun for both beginners and experienced skiers. Plans for this season include a Dryland Ski School in November, a weekend at Mt. Telemark, other weekend trips, and a week at Aspen in March. Employees and visitors are invited to join. Further information may be obtained from Sharon Nord, 851-1058.

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## BICYCLE SAFETY RECEIVES ATTENTION

The renewed popularity of bicycles and the increased accident rate have prompted the State of Illinois to take the following action: 1) "Bicycle Rules of the Road," an 80-page colored manual is now part of a bicycle safety program. Nearly 2.5 million copies have already been distributed. Especially aimed at children, but useful to all cyclists, free copies may be obtained from the Auto Registration Division, Secretary of State, Springfield, Illinois 62756; 2) A new Illinois law requires that all bicycles sold in the State after January 1, 1973 must be equipped with front and rear reflectors on each pedal. Individual pedals sold after that date must also have front and rear reflectors, visible 200 feet away; 3) After July 1, 1973 all bicycles sold must have, in addition, reflectors on each side of the wheels; 4) Signs and pavement markings will be placed along officially-designated bicycle routes in the state.

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FIRE PREVENTION WEEK ACTIVITIES - OCTOBER 9-13: At the Fire House, 34 Sauk, Extinguisher classes daily at noon; At the Village Barn, Films daily at 1 p.m.

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## WATCH FOR THE "ANNUAL PERCENTAGE RATE," says Credit Union

When financing your next car, shop as carefully for credit as you did for the car, or you may not have such a good buy after all.

For new cars a loan at the Credit Union will cost you only 8% or 9% APR (true Annual Percentage Rate), and for a used car, the Credit Union rate is only 9% or 10% APR. Recent ads have quoted financing rates on new cars at 5½% per year. This can mean actually 10.17% annual percentage rate because such financing charges you 5½% on the total loan for the number of years you borrow the money. Ads from auto dealers are often confusing and in the fine print, you may find interest rates of 14% to 18% on used car purchases.

Look for the Annual Percentage Rate when you need a loan. The Credit Union has always quoted its TRUE ANNUAL PERCENTAGE RATES on loans, and Credit Costs Less At Your Credit Union.

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## NOTES TO EMPLOYEES

The annual Statements of Benefits were distributed to all Laboratory employees on September 29th. If you have any questions regarding your benefit statement or if you did not receive one, please call the Personnel Office, Ext. 396.

Some cheerful notes are needed to keep up Debbie DeLuca's spirits as she recuperates from a kidney transplant. (Debbie is the wife of Bill DeLuca, Accelerator Section.) Address cards and letters to her at Station 22, University of Minnesota Hospital, Minneapolis, Minnesota-55455.

The NAL Chess Tournament is now in the second of four rounds. Eighteen employees have been involved in the matches. Enthusiasm and interest appear to increase with each round; one recent session lasted from 7 p.m. to 1:30 a.m. Announcement of time and place of the fourth (championship) round will appear in the Village Crier. Spectators would be welcome.

CONGRATULATIONS to [REDACTED]

[REDACTED] (Tom and Gabe both work in NAL Farm Management.)

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## FLUBS and DUBS

To correct some recent wrong impressions in the Village Crier: 1) The Meson Lab staff is not, never has been, and never will be, "compromised" but, is, rather, thoroughly "comprised," and 2) there are no vacancies for overworked physicists in the Pioneer Cemetery.

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## CLASSIFIED ADS

FOR SALE - 1964 VW Beetle, \$375; 1966 VW square back with rebuilt engine and trans., \$750; 1966 50-HP VW engine rebuilt. Call Mike Kampikas, 627-5123 or Ext. 377 (NAL).

FOR SALE - Sporterized 7MM Mauser. Gd. Condition-\$40. Call Ted Uliasz, Ext. 775 or 653-3887.

FOR SALE - 1971 Ford Pickup, ½ ton, V8, 3 spd., w/coast mirrors, tool box, heavy duty battery, low mileage. Call Bob Smith, 897-1633 or Susan Smith, NAL/Ext. 467.

FOR SALE - Canopy bed, white/gold trim, Sealy Mat/Bx. springs, new sheets/pillow cases, cano/top, bed spread. Excel. cond; Maple twin bed w/mat & sprgs. J. Thompson, Ext. 355 or 859-2089

FOR SALE - 1966 Trailer, 14-ft. Beeline, easy tow, fully eqpd., sleeps 7 friendly people, \$950, incl. Hitch. Call John Clarke, Ext. 470 or 479.

FOR SALE - Ladies gray/white/blk. check winter coat w/zip-out lining/sml. fur remov/collar, size 10; one pr. Kroehler arm chairs, lt/br. tweed, gd. cond.; 1 swivel rocker type chair; beige tweed; 2 pr. (like-new) Mens Oxford, blk. shoes, size 10-C; picnic cooler chest. Call Ed Brezina, Ext. 580 or 323-0794.

TO GIVE AWAY - 1 refrig., old but runs well. Call George Benedetti, Ext. 575 or 393-9195.

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The Village Crier is published by the Public Information Office of the National Accelerator Laboratory. Margaret M.E. Pearson, Editor. Correspondence may be directed to the address below. Telephone number of the Laboratory is 312-231-6600.

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