

The Village Crier

 national accelerator laboratory

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PROGRESS REPORT - MARCH 27 THROUGH MARCH 31

Work in the tunnel has continued all week. Toward the end of the week various systems were partially turned on in anticipation of the entire accelerator coming on shortly. Beam studies were carried on by Booster and Linac.

NAL SAFETY IS EACH EMPLOYEE'S RESPONSIBILITY

On a bulletin board in the NAL Safety Office is a poster which announces, "We Are Interested in Everybody's Safety, Especially Yours." The two-way path between each employee and the NAL safety program is getting increasing attention as the machine and the experimental facilities become operational. Ninety-five percent of personal injuries are the result of the individual's failure to follow prescribed safe practices. It is obvious from this that the primary job of a safety program is to help individuals cultivate personal SAFETY AWARENESS. NAL employees must carry out their activities so that the safety of personnel and property will receive the highest consideration while at the same time optimizing the use of facilities.

The NAL program stresses four main objectives: personal injury prevention; elimination or prevention of industrial health hazards such as dust, spray and toxic fumes; vehicle safety; and safety training. Each NAL Section Head is responsible for implementing the program within his section. Program coordination is provided by two offices working in parallel -- the Safety Office, an arm of the Business Office, and by the Radiation Safety Office under Miguel Awschalom, head of the Radiation Physics Section. The Safety Office is headed by Halsey Allen. He and Ray Brown, Ed Brezina, and Vince Zernoski work in liaison with the staff member of each section who has been designated to supervise safety measures.

A special case, particularly during the change-over period between construction and operation, is that of the Accelerator Section. Harry Howe is in charge of the safety program for this operation. Encompassing activities in the linear accelerator area, the Booster tunnel and galleries, as well as the entire Main Ring, Howe maintained an outstanding safety record during the recent machine shutdown when literally hundreds of people worked on all parts of



...Safety Office staff Members:
(L to R) Ed Brezina, Ray Brown,
Halsey Allen, Vince Zernoski...



...Accelerator Section Safety
Officer: Harry Howe...

Photos by Tim Fielding, NAL

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NAL SAFETY IS EACH EMPLOYEE'S RESPONSIBILITY



ACCELERATOR SECTION DUTY ASSISTANTS

(L to R) Top: Al Baltes; Sharon Dillon;
Bottom: Alex Waller & Charles Crose;
Mike Hardy.

the machines without a single major personal injury.

Howe is aided by a crew of "Duty Assistants." At least one member of the Duty Assistants group is on duty 24 hours a day, seven days a week. They are involved in many things. They have responsibility for ensuring safe working conditions throughout the accelerator and in particular in the Main Ring, four miles underground and the same four miles above ground, including the 30 service buildings around the Ring.

Each time the accelerator goes into operation, Duty Assistants are responsible for conducting "search and secure" of the Linac, Booster, and Main Ring, making sure that no person remains in an area that is hazardous because of exposed electrical bus work or because of radiation. Originally, they trained for this task with the aid of a plaster store dummy that was, from time to time, hidden in the tunnel. Now, working in teams, they search the Linac and Booster tunnels as well as the 4-mile Main Ring circle for persons and for potential hazards, locking each set of doors or gates behind them as they go. An interlock system built into the Main Ring is so designed that a door opened by mistake when the machine is running shuts off the machine. An intricate key tree arrangement, operated only by the duty assistants, is the last step activated before turning on the machine. In fact, keys for all entrances that are a safety hazard are inventoried, kept in a locked cabinet and issued individually by the duty assistants.

When the machine is operating, Duty Assistants are alert to the things that keep the operation both safe and efficient. At their center near the Control Room, they can check fire alarms. They answer the only telephone near the Control Room and respond to visitors' questions. During down times, vehicles used by NAL employees working on the Ring are checked in and out at the D.A. center. An accurate list of personnel on duty and their location is maintained here. Communications headsets for the pageboy system are issued at this post. D.A.'s are prepared to use portable radiation detection devices whenever and wherever they might be needed. This energetic group creates a pleasant, courteous nerve center for a crucial area of the Laboratory. The routines they carry out each day protect both visitors and employees, all of whom are made safer by the care they exercise so enthusiastically.

Industrial safety efforts are now reinforced by the federal Occupational Safety and Health Act enacted a year ago, which specifies one basic duty of employees:

"Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct."

But helping the individual help himself remains the prime motive of all safety effort. In the NAL Acceleration Section, Harry Howe has conducted a radiation safety program for 60 employees. This group will now move into other areas of training. Under the direction of staff from the Safety Office, the First Aid Office, and the Fire Department, first aid techniques, fire-fighting training, use of emergency equipment, and electrical safety will be presented. The 8-week defensive driving course of the National Safety Council is being given by Ed Brezina of the Safety Office. The influence on the employees' personal lives will be a highly desirable side effect.

In all of these different ways, NAL safety officials serve as the never-satisfied prod, always alerting the individual to assume his own SAFETY AWARENESS.

QUENTIN KERNS FIRST NAL PATENT HOLDER



..Quentin Kerns..

The first U.S. patent granted to an employee of the National Accelerator Laboratory has been awarded to Quentin A. Kerns. Patent No. 3,638,127, entitled "Stabilization System for Resonant Cavity Excitation" was granted January 25, 1972; official copies were recently received at NAL.

Kerns came to NAL in October of 1967, having been with the Lawrence Radiation Laboratory at the University of California since 1942. He was associated with the Advanced Accelerator Study Program at LRL from its inception. He has worked on the radio frequency accelerator systems of the LRL Berkeley Bevatron, and was directly involved with the development work of NAL's accelerator that was done at LRL. At NAL he has headed Radio Frequency development.

Closely involved with building accelerators since his early association with the late E. O. Lawrence, he has watched machine energy grow from a 25 million electron volt cyclotron to NAL's 200 billion electron volt synchrotron. In the NAL design, the problem of increasing both energy and intensity and at the same time keeping the cost of the machine down led to the recently-granted patent for a means of stabilizing the radio-frequency accelerating voltage of the proton beam, thus retaining protons that would otherwise be lost at high intensity.

Kerns' career has always involved working on the outer limits of knowledge in his field. Solutions for problems that arise in the design of each new machine sometimes turn out to be patentable material. Holder of 36 other U.S. patents, and with three applications pending, Quentin observes, "We, of necessity, become engineering scientists, using the skills of the engineer in combination with the theoretical vision of the scientist."

Quentin and his wife, Faye, live with their six children in Glen Ellyn. The Kerns family is looking forward to a vacation trip to California this summer. For Quentin it will be just a brief intermission in his thorough and deep involvement with a vital aspect of NAL development.

CREDIT UNION ELECTS LEADERS

Five new members were elected to serve on the Board of Directors of the Argonne Credit Union at their Annual Meeting in March. Re-elected was Miguel Awschalom of NAL's Radiation Physics Division who will again serve as the chairman of the Publicity and Education Committee.

John Foley of Argonne's Materials Handling Division was elected president; Rod Blauser and Frank Mineo were elected to serve as vice-presidents. John Chonko was re-elected as Treasurer and also serves as the General Manager of the A.C.U.

Five hundred sixty-seven NAL employees were members of the A.C.U. as of the end of 1971. This represents 11% of the Credit Union membership.

MARK YOUR CALENDAR

CANDLELIGHT BOWL - Saturday, April 8, 9 p.m. - Bowling Green Lanes. \$5.00 per couple. There are still a few openings. Pay at the lane Saturday if you like. Visiting couples welcome.

PING PONG TOURNAMENT - Now in progress. Noon hour spectators welcome at the Anderson Barn on Sauk Circle across Batavia Road from the Village. Many exciting matches are scheduled among a wide cross section of NAL people.

FAMILY SWIM NIGHT - Thursday, April 20, 7-9 p.m. - Marmion Academy.

N A L W O N E W S

GOURMET - A New England dinner featuring lobster will be held on Saturday, April 15th at 7:30 p.m. in the home of Paul and Pauline Reardon, 1483 Morse St. in Wheaton. Cost of the dinner will be slightly more than usual--(about \$13-\$15 per couple). Call Mary Ann Ryk, 968-8651, or Mary Lou Satti, 355-4430, by April 10 for recipes.

PLAYGROUP - The cooperative Playgroup offers lots of space, equipment and new friends for your young child. Playgroup meets Monday, Wednesday and Friday from 8:30 to 11:00 a.m. Call Ann Gordon, 393-9144 to arrange a visit.

NEEDED - Volunteers to help with various activities at the DuPage County Convalescent Home in Wheaton. There is a bowling group every Friday morning from 9:30 to noon. A swimming group meets the 1st and 3rd Tuesdays of each month from 9:30 till noon. Would you like to assist with the shopping trip to Yorktown on the 4th Thursday of the month from 10:30 to 2:00 p.m. For further information, please call Nancy Hanft, 892-4992.

NALWO Nominating Committee is seeking nominees for 1972-73 officers. Contact any of the committee members with names of nominees. Committee members are: Helen Curtis (Batavia 879-2974), Herta Laukant (Wheaton 665-0439) and Pat Yamanouchi (Glen Ellyn 469-0740). Please contact any of these three ladies with the name and telephone number of your nominees.

ATTENTION NAL AND VISITING WIVES

Sign up immediately for the "Field Natural History" course that will begin Monday, April 10, and run for ten weeks. The study will be led by Dr. Richard Wasson of the Morton Arboretum. It will cover many aspects of the NAL natural site such as wild flowers, spring bird migrations, aquatic life, native shrubs, fossils of our bedrock, etc.

Fee for the course is \$15. Class size is limited to at least 12 members, not more than 25. Call the Visitors Center, Ext. 560 to register.

BEST WISHES....To Tereasa Downs (Film Analysis Facility) and Ralph Wagner (Personnel) who became engaged on March 11th. A spring wedding is planned.

CLASSIFIED ADS

ANOTHER SCUBA COURSE - Starting April 10. Cost \$55. 10 persons minimum needed. For more information, contact Bill Beckley, Ext. 491 or Bob Mau, Ext. 734.

FOR SALE - Mark 10 Transistorized ignition system. Eliminates tuneups & gives 20% better mileage. New sells for \$45 retail. Will sell to Lab employee for \$29. Dominick, Ext. 555.

FOR SALE - Buick '64 Wildcat Conv. PS,PB,AM-FM; Good condition. \$350.Ext. 555 or 355-0919.

FOR SALE - Gulbransen Spinet Piano, 2 yrs. old, \$400. Call 892-3238 evenings.

FOR SALE - VW-70 Auto. Trans. AM-FM Radio, white, red int. Excel. cond.\$1,300. E. Tilles, Ext. 271.

FOR SALE - Englander Bunkbeds,mattresses & spgs. Maple finish \$40. Can be used as twin beds. Johnson, Ext. 236.

TO RENT - For single ladies; 2 rms.in comf. furn. house, compl.w/fully equip. kit.,washer/drier, TV. 892-4004.

TO RENT - Apt.,new,4 br.,kit.,DR,LR,FR,1 & (2)¹/₂baths. Air cond.,Batavia,\$275/mo. Call R. Engberg, Ext. 391.

FREE - Cockapoo dog needs nice home. Good with children-very playful. Has had rabies shots. K.Fischer, Ext. 222.

HELP! We are looking for daily transportation to Lab from Naperville & will pay expenses. Mike or Rich, Ext. 700.

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