

The Village Crier



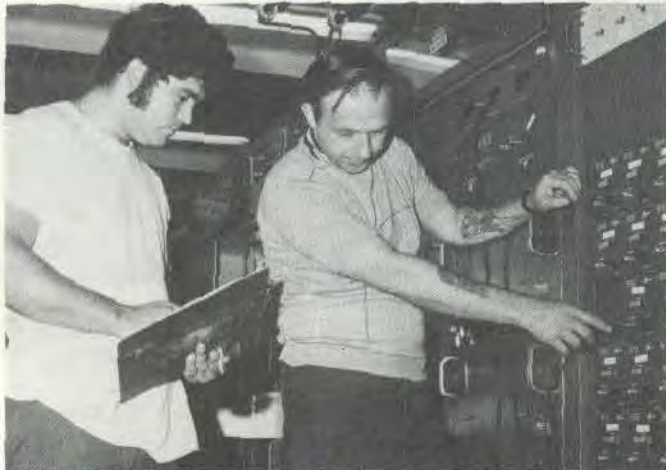
national accelerator laboratory

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MAIN RING VACUUM TECHNICIANS BUSY PERFECTING "RACETRACK"



....Wally Zimmerman (R) reads an ion pump in one of the service buildings of the Main Ring. Tom Rathbun records the data....



....Jack Johnson (R) places a precision cutting tool around the vacuum tube preparing to open the tube for inspection, while Tony Rader assists....

Photos by Tim Fielding, NAL

As the complex Main Accelerator at NAL is being tested and tuned for the day that it will reach design energy of 200 BeV, the Main Ring's vacuum technicians are busy perfecting a major vacuum system--the tight, leak-free 2 inch by 5 inch "racetrack" for protons to whirl around the world's highest energy particle accelerator.

"Our Main Ring vacuum technicians are a dedicated, hard-working group whose talents have been tested and proved many times in recent weeks," says Ernest Malamud, the physicist who directs the Main Ring group.

Nine members comprise the Main Ring vacuum technician group, headed by Jim Klen. Other members are Wally Zimmerman, Don Mizicko, Ed Podschweidt, Tony Rader, Jack Johnson, Filip Johnson, Dick Applegate and Tom Rathbun.

The group has the responsibility of maintaining a high vacuum in a system 21,120 feet in length--no small task! In addition, they must service some 774 ion pumps, 24 mechanical roughing pumps, and 24 air-cooled diffusion pumps which must perform around the clock while the accelerator is being operated. Since a high vacuum is an absolute requirement in the Main Ring to prevent beam loss due to scattering upon striking air molecules, they are striving constantly to improve the average pressure by detecting and repairing leaks and by the natural "cleaning up" of the system which occurs at high vacuum.

When the accelerator is in operation, a vacuum technician is on the job 24 hours a day, seven days a week. Each shift checks the pressures on instruments in each of the 24 service buildings located on the surface above the Main Ring tunnel. The technician maintains communication with the operations office stationed in the central control room by means of a telephone line. When trouble occurs which requires a magnet change, he isolates the portion of the Main Ring involved and proceeds to ventilate this portion to the outside atmosphere. When the change is finished, the technician returns the section to service by "pumping down," until the high vacuum range again exists, leak-tight, and ready to transmit the beam.

"RULES OF THE ROAD" NOW AVAILABLE AT NAL

Copies of the Illinois driver education manual, "Rules of the Road," are now available at the office of Rudy Dorner, Site Manager. Dorner's office is located at the corner of Batavia Road and McChesney, on the NAL site, in the same building as the NAL Site Patrol.

Dorner and the Site Patrol have recently begun efforts to expedite smooth and safe traffic flow through the NAL site. They have announced that the "Rules..." will be in effect here. "Since many of our people are from out of state, I felt that it might be helpful for them to have the books here," he said. The book is also used as the basis for the written portion of the Illinois drivers' license examination.

For further information, call Rudy Dorner, Ext. 494.

NALREC PLANS HOCKEY GAME TRIPS

NALREC, Inc., the NAL recreation club, is planning several trips to see the Chicago Blackhawks play hockey in their own Chicago Stadium.

The schedule of trips is as follows:

October 10	- Detroit	January 9	- Montreal
November 28	- Toronto	February 20	- Boston
December 19	- St. Louis		

Busses will leave from Shakey's Pizza Parlor, 110 North Lake Street, Aurora, Illinois. Pizza will be served from 4:30 to 5:30 p.m. The busses will leave at 6:00 p.m.

The price is \$12.50 per person and includes one individual pizza at Shakey's, soft drinks and beer on the bus, hockey ticket and transportation. Only 50 tickets available for each game.

For further information, please contact Peaches on Ext. 470 or 479.

NAL EMPLOYEES ORGANIZE FLYING CLUB

A newly-formed Flying Club for NAL employees will have its first general meeting on Wednesday, September 15, in the Village Barn (by the pool in the NAL Village) at 5:30 p.m. Anyone interested in learning to fly at a special "club package" rate is invited to join. Refreshments will be served.

At a recent organizational meeting, the following officers of the Flying Club were elected: Miguel Awschalom (Radiation Physics), President; Richard Andrews (Beam Transfer), Vice-President; Jerry Reid (Plant Modification), Secretary, and Tony Frelø (Photography), Treasurer. Thirty-six people attended the first meeting.

The club plans to fly out of Village Airways, located at the DuPage County Airport, St. Charles. A fleet of fourteen new Cessna Aircraft is available as well as FAA-approved flight and ground school for private, commercial licenses, multi, instructor, instrument, and water ratings.

If you have any interest in flying, you are urged to attend this meeting. For additional information, call Tony Frelø, Ext. 350 or 354.



...Flying Club members, (L to R) Dick Andrews, Tony Frelø, Gerry Reid, with Bob Chapplow (Village Airways) Miguel Awschalom (Club President) and Bob Parry (Village Airways) at a recent planning session....

Photo by Paul Jones, DUSAF

...AND A GOOD TIME WAS HAD BY ALL...

More than 2,500 people attended the NAL Family Picnic on Sunday afternoon, August 29th, in the NAL Village recreation area. Shown here are some of the activities planned by Eric Jarzab, Picnic Chairman, and his committee. Jarzab also solved five cases of missing children, in addition to helping a 6-year-old boy who asked Jarzab for help because his mother was lost. "Thanks to everyone who helped make the day such a huge success," he said.



The hot summer sun made the Beer Garden tent a favorite gathering spot for picnickers who also enjoyed the lively melodies of a German Band....



Tractor-haywagon rides were provided by Farm Management, as well as fire engine rides by the Fire Department. More than 1,200 children of all ages rode during the afternoon....



The Riding Club responded to the anticipated requests for a "horseback ride" and brought five horses to the Village for the enjoyment of the children. Club members took many young visitors around the improvised ring during the afternoon....



Long after everything else was gone, the cotton candy line went on and on. Here handled expertly by Steve Johnson of the Bubble Chamber the confection equipment was partly donated by the Argonne Credit Union.



Arotelemechanics, NAL model plane makers and fans, gave a demonstration performance for the crowds. Here, Glenn Lee watches his unique helicopter model hover over the field in back of the Photo Unit....



Arranged by Tony Frelø of the NAL Photo Unit, the demonstration included more than 35 models of expert craftsmanship. The aerial antics of the remotely-controlled flying machines brought squeals of delight from the onlookers all afternoon....
Photos by Tony Frelø, NAL

PRE-SCHOOL PLAYGROUP OPENS AT NAL

On Tuesday, September 21, 1971, a cooperative pre-school playgroup will open for children over 18 months of age.

The group will meet Tuesday, Wednesday and Thursday mornings (from 8:30 a.m. to 11:00 a.m.) at the White Farm on Eola Road on the NAL site. It is planned that supervision will be provided by the parents at a ratio of one adult for each three children with no less than two adults present at each session. Educational equipment and toys have either been purchased, made by the parents, or obtained through donations. In addition a fenced area has been prepared in the yard for outdoor play.

The playgroup has been established in response to the need for educational and social opportunities for children of this age group. It has been developed as a cooperative of parents to insure a flexible program that will reflect the individual needs of the children participating.

Mrs. Helga Biggs, Chairman of the group, sincerely hopes that interested persons will contact Mrs. Ann Gordon, 393-9144, in Warrenville for further information. All families of NAL employees are welcome to join in this activity.

MARK YOUR CALENDAR!!!! Saturday, September 25th, 1 - 4 p.m. FISHING DERBY for NAL families, especially children under 14, to be held at the Fire Pond behind the Curia. At the same time, an exhibit of camping and outdoor recreation equipment will be set up in the Village. Further details in next week's Crier.

NEW BOOKS AT THE NAL LIBRARY

Following is a list of several books recently received at the NAL Library:

Problem Solving by Digital Computers with PL:1 Programming, Andrew Vazsonyi, Prentice-Hall, 1970; Lectures on Particles and Fields, H. H. Aly, Gordon & Breach, 1970; The Conceptual Foundations of Contemporary Relativity Theory, John Cowperthwaite, MIT Press; The Concept of the Positron: A Philosophical Analysis, Norwood Russell Hanson, Cambridge U. Press, 1963; Phenomenology in Particle Physics 1971, Cal. Inst. Tech., 1971; Superconductivity and Its Applications, John Eric Charles Williams, Pion, 1970; Electrodynamics of Particles and Plasmas, Clemmow, P. C., Addison-Wesley, 1969; Measuring Oscilloscopes, John Foster Golding, Illiffe, 1971; Dictionary of Electronics and Nucleonics, L. E. C. Hughes, Barnes and Noble, 1970; Advances in Cryogenic Engineering, Plenum Pr. 1971; Tongues of Conscience: Weapons Research and the Scientist's Dilemma, Robert W. Reid, Walker & Co. 1969; Atomic Radiation and Polymers, Arthur Charlesby, Pergamon, 1969.

ATTENTION ALL TENNIS PLAYERS!

Register now for the Fall Tournament on the NAL Courts. Call Barb Schluchter, Ext. 701.

CLASSIFIED ADS

GARAGE SALE-L'O'Meara Antiques, rolltop desk, mirror, hospital bed, match desk, etc., Sat.-Sun. 9-5. 2 S 574 Kiowa, Arrowhead, Wheaton.

FOR SALE-Several choice pieces of antique walnut furniture, incl. Victorian loveseat, tear-drop bedroom suit, slant front secretary. Call Brady, 879-2900, Ext. 296.

TO BE GIVEN AWAY-5 Gerbils. E. Laukant, 665-0439.

WANTED-Books, pictures, & wall decorations to be used by NAL visitors in the on-site houses. Contact R. Thompson, NAL Library.

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