

The Village Crier

 national accelerator laboratory

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

Vol. 4 No. 4

January 27, 1972

THIS GROUP POWERS THE NAL MAIN RING...

The NAL operations reports since last October have stated several times a week that "Main Ring magnets are being high potted"...or..."High potting procedures will be resumed shortly"...

The high potting procedure, now an established, regular feature of the current stage of NAL development, has meant that a special crew has been testing the voltage integrity of the Main Ring magnets before Main Ring power is turned on. All the magnets (both bending and quadrupole) are tested at a high dc potential (a "high pot," that is) by means of a high voltage power supply. This process serves two purposes. The small "leakage" current cures the magnet insulation and consequently improves the magnet performance. Also, the current to ground is measured, thus discovering "leaks" of current that would indicate that a particular magnet could not perform its function in the Ring and should be replaced. The increased efficiency of the Main Ring operation due to the success of this procedure has been one of the highlights of the current efforts at NAL.

Carrying out the high potting operation has been one of the assignments of the Main Ring Power Supply group. Under the immediate supervision of Robert Trendler and, previously, Alan Wehmann (now returned to the Meson Laboratory), this highly skilled group has been in the middle of the action for some time.

Five members of the group are chiefly occupied with assisting Main Ring operators in the Main Control Room where the power supplies can be monitored and controlled according to the needs of the operation underway. Nine others are installing new power supplies; three are building the SCR modules which are the chief component of the power supplies. All together, seventeen technicians and six physicists and engineers comprise the work force of this versatile crew.

Current to power Main Ring magnets comes from the Master Substation through a manual disconnect and a vacuum breaker to the SCR modules which have been installed in the 24 service buildings that are located at intervals on the ground level above the Main Ring. Now, as many as 28 of the 30 power supplies are in opera-

(Continued on Page 2)



... (L to R) Bob Pighetti, Jim Garvey, and Bob Trendler performing tests on SCR modules...



... Jim Garvey adjusting frequency of the nuclear magnetic resonance probe, in service building A2...



.... Roy Mraz working on assembly of an SCR module in service building D-0...

Photos by Tim Fielding, NAL

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tion; these will give the Main Ring a 200 BeV level. Plans are underway to install thirty additional power supplies, for a total of sixty. Each power supply is composed of six SCR modules, connected in various sequences, and the associated control circuitry. Service building D-0 currently serves as the "factory" where modules are being built. In view of the fact that ultimately 360 SCR modules will be needed in the Main Ring, this task of the Power Supply group looms large on their work schedule!

Destined for much more of the heavy responsibility they now carry, the goals of the Power Supply group, according to Trendler, consist of "completing the installation of the system so that the Power Supply Commissioner, Dick Cassel, can make it perform in the fashion needed. In addition, we must make the system more reliable by testing and improving elements of the system."

Trendler also observes that the combination of skill and dedication found in the group is "outstanding," and "no doubt accounts for the highly successful performance the group has been able to demonstrate in carrying out the priorities established for us."



...(L to R) Pighetti & Garvey disconnecting a power supply from Main Ring magnet bus....



...Mraz inspecting printed circuit boards in the AC control...



...Mraz and Pighetti adjusting the hi pot power supply in Building A-2...

POLIO VACCINATION SUGGESTED

Dr. Robert Cornell, NAL Medical Director, suggests that NAL employees with young children follow the advice of the Illinois Department of Public Health which is currently urging that all Illinois residents up to 18 years of age check with their physicians immediately to determine the status of their polio immunizations.

The warning has come because of the discovery of isolated polio virus in Illinois. The variety of vaccines available has added to the confusion, officials say, and many people who thought they were completely immunized are not protected because each type of vaccine requires a different number of doses. In some cases, the series was not completed or dosages were administered out of sequence.

Officials say that because of low immunization rates found in preschoolers especially, "all children in Illinois can now be technically considered an increased risk."

PROGRESS ON ACCELERATOR STUDIES

BETWEEN JANUARY 17TH AND 22ND...

Good circulating beam has been obtained in the Main Ring. Seven R. F. cavities are on. Acceleration beyond transition has been achieved. Plans call for studies to continue.

NAME DIRECTOR OF PERSONNEL SERVICES

Richard A. Carrigan, Jr., NAL physicist since September 3, 1968, has been appointed Director of Personnel Services for the Laboratory. He assumed the duties of the position on January 10, 1972.

In announcing Carrigan's appointment, R. R. Wilson, NAL Director, noted, "We have come far in the past four years and we have yet a long way to go. What we have accomplished has been in part due to an atmosphere of dedication, pride and enjoyment in the work of the Laboratory. That atmosphere must continue to exist - will be even more important - as we go from construction to the scientific operation of our facility.. To assist us in this respect, we have been looking for a person with scientific experience and background who would concern himself in an understanding and imaginative way with matters of this kind."



...Richard A.
Carrigan, Jr...

A number of existing Laboratory groups will report to Dr. Carrigan. Among these are the offices of Personnel, Equal Employment Opportunity, Technical Information, Public Information, and Lodging and Food Service. He will also give considerable attention to plans for the influx of users and visitors that will accompany the turn-on of the NAL accelerator expected in 1972.

Born in Miami, Florida, Dr. Carrigan studied at the University of Illinois where he earned B.S., M.S., and Ph.D. degrees in physics. A research physicist at Carnegie Mellon University in Pittsburgh, Pa., from 1961 to 1964, he was also an assistant professor of physics there from 1964 to 1968. As a senior Fullbright Fellow, he spent a year at Deutsches Electronen Synchrotron in Hamburg, Germany in 1967. He was also recipient of an Esso Fellowship while at the University of Illinois and has served as guest physicist at the Brookhaven National Laboratory. His two years in the U. S. Army included service at the White Sands Proving Ground.

Dr. Carrigan's field of interest in physics has involved exotic particles, high energy scattering and mesic x-rays.

At NAL, prior to his new appointment, he worked in the Accelerator and Meson Laboratory sections. In 1970-71 he acted as administrative head of the Physics Research section.

Carrigan and his wife, Nancy, reside in Wheaton with their two children, Caroline, 13, and Stephen, 11. Mrs. Carrigan is a well-known artist in the area and has exhibited in several DuPage County shows. The Carrigans also collaborated in the writing of a science fiction story, "The Siren Stars," published in book form by Pyramid Press in 1971. A second book is in process.

HIGH-RISE CAFETERIA NOW OPERATING

The Cafeteria, on the east side of the NAL high-rise, opened last week. Between the cranes swinging overhead, lifting material for the upper 12 stories of the building, and the warning bell of the bulldozers excavating the auditorium foundation next to the high-rise, is a small, covered entrance, thoughtfully provided by DUSAF, marked "Cafeteria Entrance." From there, in the midst of mud and construction riffraf, come aromas of coffee, soup, hot food. And, inside, is the gracious hospitality of food service, provided by Sal Cuomo, Food Services Manager, and his crew. The NAL Main Site "pioneers" who have long performed without the amenities of the Village, responded at once, and the week was surely tabbed, "Success!" Tony Frelo, photographer, was on hand for the opening days.

Shown in photos at right (Top) First customers- Ted Soszynski & Jim Snow of Accelerator Section; Helen Thompson, right. (Center) Food Service Staff Members (L to R) Wilma Crimaldi, Elke Schatto, Sal Cuomo, Helen Thompson. (Bottom) "Full house" on opening day!



X-RAY UNIT AT NAL ON WEDNESDAY, FEBRUARY 2

The DuPage Tuberculosis Association will bring its x-ray unit to the NAL Village on Wednesday, February 2, from 8:30 a.m. to 1 p.m.

Employees who have not had an x-ray for a year or longer are urged to take advantage of this free service.

The mobile unit will park next to the First Aid house in the Village at 24 Sauk. No appointments are necessary.

RECENT DRAFT LAW CHANGES - by William Butler, Personnel

One of the recent changes in the draft law which affects all employees holding an occupational deferment is that your local Board is not required to notify your employer of any change in your status. Also, only the registrant can request exemptions, deferments or postponements from the local Board. We can, however, provide support letters for your request.

It will be your responsibility to keep the Laboratory informed of your status, keeping in mind that you have only 15 days to file appeals. Please call William Butler, Ext. 324, with any questions.

LAST CHANCE FOR THEATRE PARTY TICKETS

Many people who try to see "Fiddler on the Roof" are told that tickets are sold out for a year ahead. Don't miss the chance to see this production which seems to become more popular as the weeks go by!

The NALREC Theater Party tickets are \$11.00 per person and include dinner, the show, and bus transportation to and from the NAL Village.

The date: Saturday, February 12
The place: Candlelight Dinner Playhouse

Busses will leave the Village Cafeteria parking lot at 8:30 p.m. For tickets, call Jim Snow, Ext. 775, or Barb Schluchter, Ext. 701.

BOWLING LEAGUE ENDS FIRST ROUND

The NAL Bowling League ended its first round of the 1971-72 season on January 14, 1972. Barb Schluchter, of the Accelerator Section, League Secretary, reports the following:

<u>Team Standings:</u>	1st	Late Framers	5th	Buffalo Chips	9th	Infinity
	2nd	Fred	6th	Lil Bit	10th	Aces
	Tied for 3rd	Quickies &	7th	4 + 1	11th	Dufast
		Confusion	8th	One Short	12th	Ruffin's Raiders

	<u>High Series</u>		<u>High Game</u>	
<u>Men:</u>	Al Guthke, Proton Lab	642	Guthke	256
<u>Women:</u>	Mildred Meyer, Personnel	506	Joy Thomas, Purchasing	207
<u>Team:</u>	Quickies	2,304	Buffalo Chips	863

CLASSIFIED ADS:

FOR SALE- '65 VW bug, good transportation, \$350. H. Hann, Ext. 314 or 665-2984.

FOR SALE- '65 Olds., F-85, 2 Dr. Coupe, V8, Auto., PS, Radio, WW's, no dents, 1-owner, \$475. 879-2755.

FOR SALE- Hotpoint refrig.-freezer (door at top), 13 Cu.Ft. White, 5 yrs. old, like new. \$50. 897-3262.

WANTED- Bassoon teacher for intermediate student. Please call 584-0799 evenings.

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