



...NAL's master sub-station, with large oil circuit breakers in place...

--Photo by Tony Frelø

WORK PROCEEDS ON MASTER SUB-STATION

The following was written by William Riches, NAL Plant Manager. Riches, a resident of Geneva, came to NAL from the Columbia Broadcasting System where he was Director, Facilities Engineering and Operations. He is a graduate of the University of Manitoba in Electrical Engineering. His article is another in a series by NAL scientists and engineers for The Village Crier on progress at NAL.



William Riches

THE MASTER SUB-STATION located at the northwest corner of Road A-1 and Road B will supply all power to the Main Accelerator Site. It will receive power at 345 Kilovolts over a two-mile transmission line which taps the Commonwealth Edison Company's transmission lines at the northeast corner of the site.

In the sub-station will be located three 40-Megawatt transformers which, when equipped with cooling fans, will provide a total capacity of 200 Megawatts of power.

The 345 KV busses, insulators, switches and metering transformers will be installed on low profile structures.

The incoming transmission line will supply this bus work through an oil circuit breaker and a circuit switcher. The tall poles in the sub-station yard provide lighting to the yard and lightning protection to the sub-station.

The 13.8 KV secondary power from the transformer supplies a 13.8 KV distribution bus and circuit breakers in the sub-station building. Power is distributed from this building through underground cables to various parts of the site. Sub-station building also houses protection relay equipment and control equipment for the sub-station.

Our construction schedule calls for completion of the sub-station and transmission line by January 1, 1971 at which time the sub-station will become operational and will supply power to the Main Site.

DUSAF OBSERVES THIRD ANNIVERSARY AT NAL

DUSAF executives were hosts Monday, June 15, at a dinner at the Pheasant Run Lodge to observe the third anniversary of their formal association with NAL.

About 45 men and women attended the affair, including Professor Norman F. Ramsey, President, Universities Research Association, Inc., and representatives of the AEC, NAL and DUSAF. DUSAF is the architect-engineering consortium concerned with conventional design and planning of facilities for the Laboratory.

Architects and engineers are not noted for their literary skills generally. However, one "hit" of the evening was a poem read by Parke Rohrer, DUSAF's project manager. It was not exactly in iambic pentameter and it was considerably longer than a sonnet. A portion follows:

There was a young man from Cornell-
When told it was Weston said, "Well...
I'd rather have trees,
 some mountains and seas
Than all of the corn you can sell!"

But then when he saw all the land,
And heard of what Kerner had planned,
Said, "I'll build a machine
 like no one has seen!"
And started an office well-manned...

Then came "Alexander the Great,"
Prepared Bob a man-power slate;
Ran ten flights of stairs
 To show Bob he cares,
Then rested on boxes and crates!

Four partners came in to give aid;
And mid the uproar that they made,
They soon reached accord
 And schedules soared.
The test Linac foundation was laid!

The Lab and Joint Venture then met;
A contract they needed to get.

The fee was so low-
 Don Getz said "Zero!"
By nine months a figure was set!

The first of December was cold,
With snow, ice and mis'ry untold!
The wind sure did blow
 At the ground-breaking show;
Earth flew from the shovel of gold!

Schless' men all struggled and pained,
The big swamp was partially drained;
The Linac took form-
 The Booster was born;
Thru the mud Collins' old flowered Jeep strained!

With Angela and Anacin together
I choose colors in any old weather;
But when Reardon I meet
 No pill can compete,
For he is as tough as shoe leather!

For 200 BeV Bob designed,
Then 500 came to his mind!
What next will he dream
 For that proton beam?
I hope that a thousand he'll find.

(-The author prefers to remain anonymous...)

FRENCH TV TO FEATURE NAL

NAL will be featured in a sequence on the monthly "Science Magazine" on French National Television in July and August.

Ernest Malamud, Main Ring, was interviewed for the program last week (see photo at left) during a two-day stay at the Laboratory by a four-man team sent to produce the program. Here, Malamud is shown being videotaped near the center of the four-mile Main Accelerator.

Leader of the visiting French TV crew was Paul Ceuzin, who also is an editor of the French scientific magazine: "Science and the Future."





FAMILY DAY ATTRACTS 1,200

Family Day at NAL on Sunday, June 14, attracted about 1,200 men, women and children for tours of the Village and the Construction Site. The visitors consumed 75 gallons of punch in the NAL cafeteria -- and 10 cases of cookies! In the above photo, a hay wagon transports kiddies and parents to the new pasture of the Laboratory's six buffalo. Standing at the rear of the wagon is Mrs. Phyllis Thompson, Farm Management. In the



photo at right, Lowell Klaisner, Booster, explains technical aspects of the Booster Tunnel at the Main Site to some of the visitors who had been driven to the area by a fleet of six buses rented for the occasion.

HERE AND THERE AROUND THE VILLAGE, ETC.

THE NAL SOFTBALL LEAGUE: It was a week of big scores in NAL's intra-mural league. The games scheduled June 16 were rained out. Scores for the June 18 games at the NAL Village field were: Beam Transfer, 29, Radio-Frequency, 11; and Linac 21, Machine Shop 20.

NOTRE DAME HONORS R.R.W.: The University of Notre Dame conferred the honorary degree of Doctor of Science on Dr. Robert R. Wilson, NAL's director, at its 125th commencement Sunday, June 7, at Notre Dame, Indiana.

SEEK TO FORM NAL ASTRONOMY CLUB: Luther Hardy, Machine Shop, is interested in organizing an amateur astronomy club for NAL employees. Others with the same interest should call Hardy at Ext. 242.

STOCKROOM IS MOVED: Stockroom Number 6, for Office Supplies and Safety Equipment, was moved from 35 Blackhawk to 16-A Potawatomi in the NAL Village over the week-end.

LINAC CONFERENCE SCHEDULED

NAL will be the host for the bi-annual Proton Linear Accelerator Conference this year. It will be held in the Village Barn from Monday, September 28 through Friday, October 2, 1970.

Donald E. Young, Linac section leader, will be conference chairman. He also heads the conference's program committee scheduled to meet Monday, July 13, to complete plans for the meeting. About 150 scientists from laboratories and universities in the United States, France, Germany, Switzerland and other centers have been invited. Invitations also have been extended to five Russian and two Polish scientists.

FIRST AID AWARDS ANNOUNCED

The following NAL employees will be receiving standard First Aid cards after completing ten hours of Red Cross instruction on May 20th:

Joanne Stupak	Director's Office	Jan Ryk	Booster
Mildred Meyer	Personnel	Bill Young	Booster
Mike Hardy	E.E.O.	Don Champion	Machine Shop
James Schluchter	Booster	Eugene Stark	Machine Shop
Milton Kampikas	Booster	Al Guthke	Beam Transfer
Bob Hodge	Booster	Bob Horbus	Booster
Dick Krull	Beam Transfer	Virgil Sutcliff	Maintenance
Philip Gavin	Radio Frequency	Bev Braun	Personnel

Classes are taught by Gregg Urban, Linac; Dorothy Poll, R.N., and assisted by Bob Scherr, Beam Transfer.

The following are continuing classes to receive their advanced Red Cross cards.

Jim Schluchter	Booster	Bob Horbus	Booster
Milton Kampikas	Booster	Virgil Sutcliff	Maintenance
Jan Ryk	Booster	Bev Braun	Personnel
Dick Krull	Beam Transfer	Philip Gavin	Radio Frequency
Bill Young	Booster	Mike Hardy	E.E.O.
Don Champion	Machine Shop	Bob Hodge	Booster
Eugene Stark	Machine Shop		

Walter Sullivan, Science Editor of The New York Times, will visit NAL Tuesday, June 30.

After a tour of the Laboratory, he will speak from 4:00 to 5:00 p.m. in the NAL Curia on: "Will the Public Support the Most Expensive Billiard Game in History?"

CLASSIFIED ADS

APARTMENT FOR RENT (Sub-let), Elmhurst, 2 bedroom, air-conditioned, carpeting and drapes, garage. Close to shopping and High School, good transportation. Call: TE 2-7180 after 6:00 p.m. for inspection. \$185.00/month plus \$15.00/month for garage.

FOR SALE - Stanley H-294 Router-Plane kit, case and extras, bits, jamb and many accessories. Like new. \$100.00 3" wide Band Oscilloscope, Sencore PS-120. \$75. Transistor-Diode Tester, brand new, Lab Model. \$25.00. Call George Nosal, Ext. 242.

MOVING - 1960 Richardson Mobile Home 10'x55', 3 bedroom - completely furnished, wall to wall carpeting - good condition. \$3,000 o best offer. Call 896-7141 after 6:00 p.m.

FOR SALE - 11 ft. Fiberglass sailboat complete with all hdwr. \$100. Call H. Hinterberger. 879-1570.

FOR SALE - '68 Opel, Model 91, 2-dr. sedan, radio, 1.1 liter engine, \$950. Lowell Klaisner, 879-3422 or 969-3718.

FOR SALE - '66 Toyota Corona Deluxe, Auto. Call Bob Oudt, Ext. 339.

FOR SALE - Junior Britannica Encyclopedia w/bookcase, new, still in box, \$149.00. Call Ernie Guzman, Ext. 210 or 897-5240.

National Accelerator Laboratory

P.O. Box 500

Batavia, Illinois 60510

U. S. Postage, Paid
Non-Profit Org.
PERMIT No. 204
Batavia, Illinois