

The Village Courier

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ALL SYSTEMS GO! ON TRANSPLANTED 30" BUBBLE CHAMBER

The 30" hydrogen bubble chamber which has been moved from Argonne National Laboratory in the last six months to a new location, in the Bubble Chamber area of the Neutrino Laboratory at NAL, was successfully tested in its new home on November 9th. Tracks of cosmic rays and of secondary electrons from gamma ray sources were observed.

From April of 1964 until April of 1971, the chamber was one of the main research facilities at Argonne. Over 50 experiments (a total of nearly 14 million pictures) were performed for groups from the major research centers in the U. S. The chamber was originally constructed for use at the Argonne zero gradient synchrotron (ZGS) by a Midwestern Universities Research Association group in Madison, Wisconsin, under the direction of Dr. W. D. Walker. Now on the staff of Duke University, Dr. Walker will also be working on experiments that will be done with the chamber at NAL.

As plans for experiments at NAL evolved in the last three years, it became apparent that a bubble chamber facility should be available at NAL as soon as beam was available. An agreement was reached between NAL and ANL in December of 1970, and in April 1971 plans were completed for the buildings and major services to be provided for the new facility by NAL, while ANL accepted responsibility for the move and installation aimed at initial operation of the bubble chamber at NAL in November, 1971. Argonne will also operate the facility during the first year of its use in experiments at NAL.

Dr. Louis Voyvodic, who has been group leader of the 30-inch bubble chamber section at Argonne, has also directed the reactivating operations at NAL. "The uniquely high optical precision and the unusually high magnetic field of 32,000 gauss in this chamber will play important roles in the experiments to be performed at NAL," he notes, "building on the proven performance already achieved with this facility at Argonne."

Approved plans for experiments with this bubble chamber are thus described by Dr. Voyvodic: "First, a series of eight 'quickie' experiments with the 'bare' chamber has been scheduled, utilizing the full energy range of NAL proton and meson beams, in order to survey the kinds of interactions which can now be studied for the first time with these particles."

A group of Argonne scientists who are especially familiar with this chamber will con-



...Pictured here is the Argonne National Laboratory group responsible for moving the 30" bubble chamber from Argonne and operating it at NAL. They are, (L to R, bottom to top): V. Sevcik, R. Walker, L. Voyvodic, P. Furio, V. Shoemaker, O. P. Keefer, R. Brazzale, R. Pucci, J. Hoover, D. Wilslef, W. A. Williams, V. Sauter, R. Williams, J. Harder, V. Kubilius, J. Bayer. Absent when photo was taken was the night shift crew: G. Hodge, W. Horn, and H. Gifford.

Photo by Tim Fielding, NAL

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duct the first experiment. Other "quickie" experiments will include researchers from NAL, UCLA, Brookhaven National Laboratory, CERN, University of Michigan, University of Rochester, Lawrence Berkeley Laboratory, and University of California at Davis.

"Next," says Dr. Voyvodic, "will come a systematic experiment in which the chamber will be aided by a hybrid system with wide gap optical spark chambers." Four laboratories-- Michigan State University, Iowa State University, University of Maryland and Argonne will carry this out, with additional participation by Duke University, University of Toronto, Purdue University, University of Notre Dame and University of Wisconsin.

And, "additional experiments are being planned by another group of nine laboratories who are providing further wire-chamber and computer instrumentation to enhance the hybrid capabilities of this unique bubble chamber installation," according to Dr. Voyvodic.

The successful testing of the chamber in its new surroundings was started on November 1, when the main components began a "cooldown" reaching down to 450 degrees below zero (-450°F). At this temperature, controlled boiling of liquid hydrogen was achieved to produce particle tracks on November 9th.

During the checkout tests of the chamber, the electrical power supply for the powerful magnet in the system arrived from California. This is now being readied to allow full experimental operation, with the bubble chamber group pausing occasionally to check on progress at the NAL Main Ring. The 100 to 500 BeV beams will bring exciting events to this group of scientists in the Bubble Chamber area.

CHRISTMAS DANCE COMING SOON--FRIDAY, DECEMBER 17

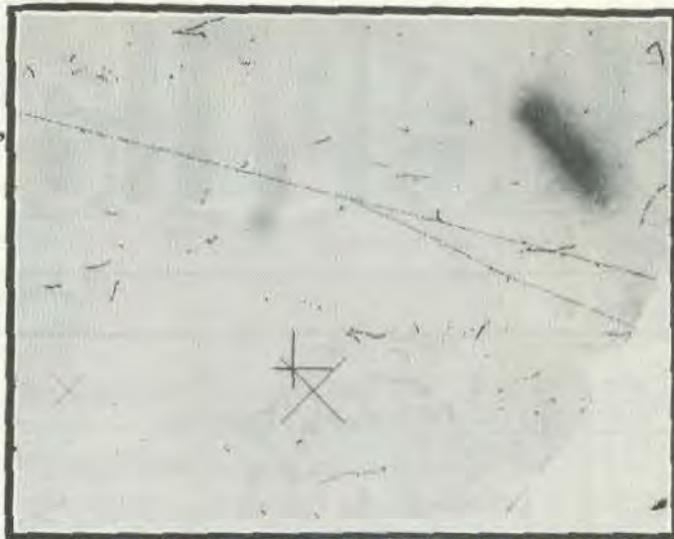
Have you bought your tickets for the Christmas Dance? Visitors on site are welcome to join employees and their guests on Friday night, December 17th, for one of the most elegant events on the NAL social calendar. The dance will be held at the Villa Olivia Country Club, Elgin.

Buffet supper will be served from 7 to 8 p.m. The menu will include turkey, beef, ham, salad, rolls and a dessert. A free bar will open at 8 p.m.; the club bar will be open before dinner.

Two bands will alternate playing for dancing at 9 p.m. "Elmer's Tunes" will play the old-but-good numbers and "The Sons," a 4-piece rock group from St. Charles, will sing and play for rock fans.

Tickets for the evening, priced at \$7.00 per person, are on sale through NALREC representatives. Tickets will also be on sale in the cafeteria during the lunch hour in the next two weeks. But don't wait until the last minute; it's an evening to look forward to!!!

AN IDEA FOR A MERRIER CHRISTMAS... NAL receives many requests from non-profit organizations for donations, but since NAL is federally funded, it is impossible to help support these organizations with any monetary gifts. Rather than exchange Christmas cards among ourselves, the money used for cards could be sent to these organizations. Two worth noting here: DuPage-McHenry Tuberculosis and Respiratory Disease Assn., 526 Crescent Blvd., P.O. Box 590, Glen Ellyn, Ill. 60137, which provides free chest x-rays once a year for employees; Chicago Heart Assn., 22 W. Madison Ave., Chicago, Ill. 60602, which carried out free heart check-ups for us in the spring of 1971.



...Tests on November 9th in the ANL hydrogen bubble chamber, after completion of the installation at NAL, showed these cosmic ray and CO⁶⁰ tracks...

SANTA'S FIRST VISIT TO NAL SUNDAY, DECEMBER 12

A special TWX message from the North Pole announces that Santa Claus will visit with NAL, AEC and DUSAF children, ages two through ten, from 2 to 4:30 p.m. on Sunday afternoon, December 12, in The Village Barn at the first NALREC Children's Christmas Party.

If you have not yet done so and plan to attend the Christmas party, you are asked to complete the questionnaire distributed some time ago indicating the names, ages and sex of your children who will attend. If you definitely do not plan to attend the Christmas Party, please advise Liz Foster in the Director's Office. The committee must have this information so that there will be surprises and refreshments on hand for everyone. Children of visiting families are welcome; they should also fill out the questionnaire.

Plans are being made for a variety of "mini-activities," in addition to the refreshments and visit with Santa, in an "open house" style so that families can plan to come when they can. Several hundred children are expected to attend. There is no admission charge, but children should be accompanied by a parent.

For further information, please call Liz Foster, Ext. 211.

PROTONS WIN!!

The NAL Protons were victorious in their second and third basketball contests held at Naperville High School on November 11th and 18th. The Protons were led in both contests by Roy Justice, their sensational captain, who continues to provide superb leadership.

NAL has shown considerable improvement this year. Much of the credit must also be given to Joe Jackson (Experimental Services) who has proven to be a valuable asset in the middle. Joe stands 6'5" and weighs around 225 lbs. He has participated in both collegiate and semi-professional basketball before joining the Protons this season.

The Protons will resume their schedule on December 2, 1971 following the Thanksgiving vacation. Follow us, we believe that this is the year the PROTONS will accelerate.

HELP, HELP--BLOOD NEEDED!

The NAL First Aid Department this week again stressed the need for blood donors for the December 21, one-day visit of the Red Cross Blood Bank to the NAL Village. The object is to get the 61 additional donors so that all NAL families will be covered in case of a disaster requiring blood replacement.

Persons rejected last September when the Blood Bank visited, should try again now, in case rejection was due to a temporary condition. If an employee is not able to donate, another adult member of the household can serve as donor. The First Aid Department will shortly send out registration forms for the December 21 Blood Bank visit.

For further information, call Dorothy Poll, Ext. 232.

CONGRATULATIONS AND BEST WISHES.... to Mr. and Mrs. Lee Perington (Barbara Wirgler) who were married on November 27th at the Presbyterian Church of Western Springs. The Peringtons are now living in Geneva. Lee is employed at the Agricultural Stabilization and Conservation Service in West Chicago; he is also a student at the Kent College of Law, Chicago. Barb is a secretary in the NAL Accelerator Section.

NEWS FROM NALWO: There are still a few openings for the annual Christmas Smorgasbord of the Gourmet Group, combined with Sing-A-Long group, to be held Saturday, December 4, at the home of Sonia and Tom Collins, 413 S. York Road, Elmhurst. Call Mary Ann Ryk, 968-8651 for recipe and reservation.

BRIDGE GROUP...no meeting in December. CERAMICS GROUP...meets every Friday at the Whit Farm at 11:15 a.m. For further information, call Joan Sculli 355-4109.

IT'S TIME TO WINTERIZE

The "good luck" we have had so far this fall from the weatherman appears to be ending. George Doyle of NAL Plant Services has again prepared a list of "tips" on winter care for your car. The list was developed on the basis of the causes of the emergency calls to which George's staff members responded during the cold snowy days of last winter. It's time to get your car winterized, and when you do, remember to have the following checked:

1. Have new points, condenser and plugs installed and timed.
2. Check spark plug wires for shorting out.
3. Fix radiator if leaking or clean with a cleaner.
4. Check if water pump is working properly.
5. Have radiator cap checked.
6. Make sure hoses are in good condition and that the clamps are tight.
7. Add antifreeze with rust inhibitor, tested to about 25 degrees below zero.
8. Check belts on fan and generator, or alternator. This is the cause of about 25% of run-down batteries in winter use.
9. If battery is old or will not hold full charge overnight, it's time to invest in new one.
10. Make sure battery connectors are clean and tight.
11. Have automatic choke checked. This is very important.
12. Have a carburetor check.
13. Install snow tires. Also, balance same.
14. Run your car for a few minutes with lights, heater and radio off before putting it away for the night. This will give your battery time to charge for a better start in the cold morning.

YOUR CREDIT UNION: 5½% DIVIDENDS ON DEPOSITS

At the regular meeting of the Board of Directors of the Argonne Credit Union on Wednesday, November 17th, it was voted to set a 5½% credit dividend on all savings for the current quarter. This increase in the dividend rates has been possible because more money was lent to the members, to everybody's benefit, according to a Board spokesman. In the last two months almost \$403,000 was loaned on cars and trucks by Argonne Credit Union, and over \$303,000 in various other categories.

Have you recently checked with your Credit Union on how much you can save in credit costs? For information call Ralph Wagner, Ext. 324 or ANL 6-3789.

REMEMBER: CREDIT COSTS LESS AT YOUR CREDIT UNION.

CLASSIFIED ADS:

FOR SALE-'68 VW Bug, Excl. condition, new tires, 31,000 miles, avail. end of Dec., \$1,150; Used 24" diameter charcoal grill w/cover, \$60 new, best offer; Meteor Master skis w/quick release bindings & poles like new, \$50; Weber Kettle Charcoal Grill, new-never used, retail price \$80, asking \$60. Call Cynthia, Ext. 569.

FOR SALE-Two 6'-0 Baseboard Elect.heaters w/sealed hot water system.200 AMPS w/thermostat; Water pump mounted w/motor & water storage tank. Reset starter on motor connected w/gage on tank. Used for cistern but can be hooked up for yard fountain. John, 879-2900, Ext. 218.

FOR SALE-71"head standard Metal skis w/Cubco bindings. \$80;50" Alum.ski poles,\$4;Woman's size 10 laced ski boots,\$15; all in good cond. Bud Koecher, Ext. 555.

FOR SALE-'65 Ford Gal.,Gold w/white hdtop.,clean,good cond., new brakes. \$350 or best. Judy, Ext. 555.

FOR SALE-'67 Camaro SS396, 4 speed, mint condition. \$1,200. Jim, Ext. 771.

FOR SALE-Two 775x14 snow tires, used about 4 months. \$20 pair. Ernie Barrick, Ext. 421.

GIVE AWAY-Lively housecat needs good home. Part Siamese tortoise shell female, 7 months. Call Kyu Lee, Ext. 205 or 892-5415.

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