BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Light Source Dedicated

The National Synchrotron Light Source was officially launched November 22 on what is expected to be a brilliant career. At dedication ceremonies in Berkner Hall, George A. Keyworth II, Director, Office of Science and Technology Policy, Office of the President, was the principal speaker. He was joined on the platform by Congressman William Carney and Dr. Donald K. Stevens, Deputy Director for Basic Energy Sciences, DOE, Lab Director Nicholas Samios and NSLS chairman John McTague.

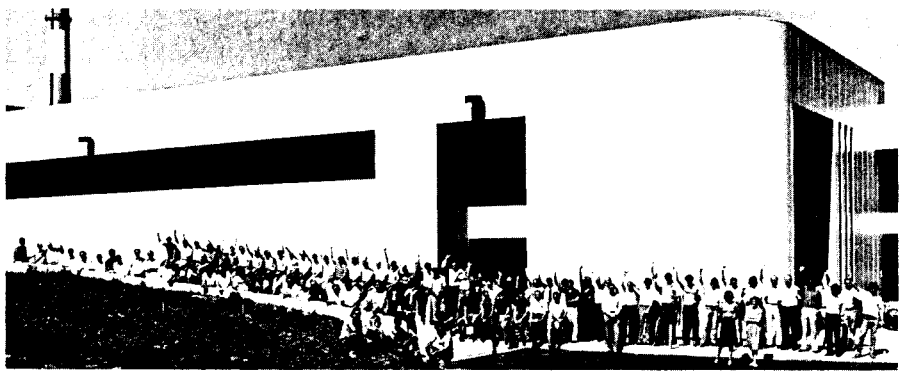
In his remarks, Samios paid tribute to the late Renate Chasman and Kenneth Green for their "novel and unique design" of the NSLS, and to those who first suggested a light source--Chalmers Frazer, Dick Watson, Joseph Weneser, Fred Mills (now at FermiLab), and the late Morris Perlman. John Blewett was credited as the "first man to see synchrotron light," Martin Blume was singled out for his "untiring efforts to assure a first-rate scientific enterprise," and project head Arie van Steenbergen "for the maturity and judgment that assured its success."

Samios also announced that because of the magnitude and diversity of its program, the Light Source would now become a department of the Laboratory.

McTague said that it was expected that 50 experiments in a wide variety of technological and scientific areas will be running simultaneously by the end of Fiscal Year 1983. The NSLS staff now number 110, there are 185 PRT members and at least 1000 general users in the wings.

Nicholas Samios proposes a toast to the new facility. With him at lunch are (from left) Dr. Stevens and Congressman Carney.

Dr. Keyworth (left) and Martin Blume share a light moment.


A view of the National Synchrotron Light Source and some of its people.

Presidential Science Advisor George A. Keyworth, II said that the National Synchrotron Light Source meets the basic criteria of excellence, relevance and appropriateness that the administration is applying to all federally-funded research and development projects: "As the saying goes, build a better light source and the world beats a path to your door. In the case of the NSLS, the knocking on the door started long before the photons were ready to be allocated. The customers even came early and helped with the construction. That enthusiasm, and the shared responsibility among federal, academic and industrial scientists, is one of the factors that makes this facility absolutely unique....To me the Light Source is an excellent prototype of a federal lab responding to the opportunities and problems of the 1980's....Like the laser or the restriction enzyme, this is an experimental tool that simply won't be denied....With $13 million coming in from outside to build beam lines, it's obvious you're offering up something important here....My own confidence and enthusiasm grow when I see a place like NSLS because it shows how effectively we can put knowledge and resources to use when our objective is clear and agreed upon."

Talking together before the dedication ceremonies are (from left) Nicholas Samios; John McTague; Douglas Pewitt, Assistant Director for General Science, Office of Science and Technology Policy; Frederick Khedouri, Associate Director for Natural Resources, Energy and Sciences, Office of Management and Budget; and Deputy Director Warren Winsche.

In the NSLS control room are (from left) Arie van Steenbergen, John McTague and Dr. Keyworth.

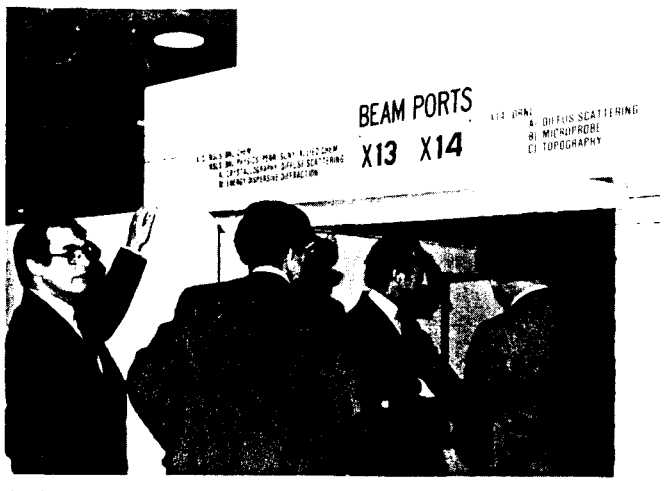
Congressman William Carney noted that the NSLS is off to a good start, having been built at its estimated cost and on time. For this, and for the excitement the NSLS has generated in the research community, he credited the Laboratory and its people: "We remember that the Brookhaven National Laboratory was established as a regional facility to attract scientists from the eastern third of the United States. But we call the Synchrotron Light Source a national project. However, the expressions of interest in the project, its possibilities and promises, come from the international scientific community, and that, needless to say, is an impressive group....The levels of dedication, intelligence and creativity of these scientists, technicians, engineers and administrators [at BNL] are challenging to all of us, and that's an impressive national resource....I look forward to the accomplishments we'll be having here and the accomplishments we'll see from the project and from this Laboratory, but most importantly, from the people here."

Dr. Stevens (left) speaks with Robert Hughes, President of AUI.

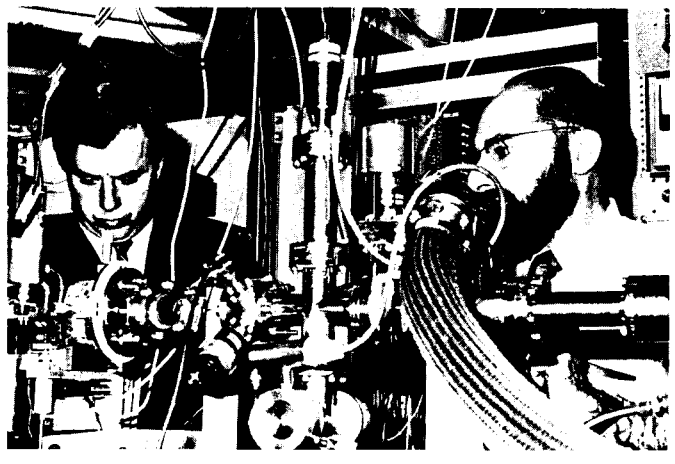
John Blewett, the experimental discoverer of synchrotron radiation.

I.I. Rabi (left), Nobel laureate and honorary AUI Trustee, talks with AUI Trustee Robert V. Pound, Harvard University.

Dr. Donald K. Stevens, DOE, recounted the early history of support for synchrotron radiation in the Department of Energy and its predecessors, and the events which led to the authorization for the NSLS. One of the most important, which he credited largely to DOE's Jim Kane, was the development of the policy which makes the NSLS beams available at no cost to qualified scientists for basic non-proprietary research: "It is an honor and a source of pride to be here today at the dedication of the National Synchrotron Light Source. It is the envy of the world and clearly demonstrates continued leadership by the United States in selected areas of science. It also demonstrates the wisdom and innovative thinking of the staff and the management of Brookhaven....we are now, then, about to dedicate this absolutely superb, not-to-be-matched facility in the United States."



At the NSLS x-ray ring, Dr. Keyworth (left) is among those inspecting ports X13 and X14.


Janos Kirz (right), SUNY, Stony Brook, shows Congressman Carney the experimental equipment at port U15 of the NSLS' vacuum ultraviolet ring.

—photos by Rosen

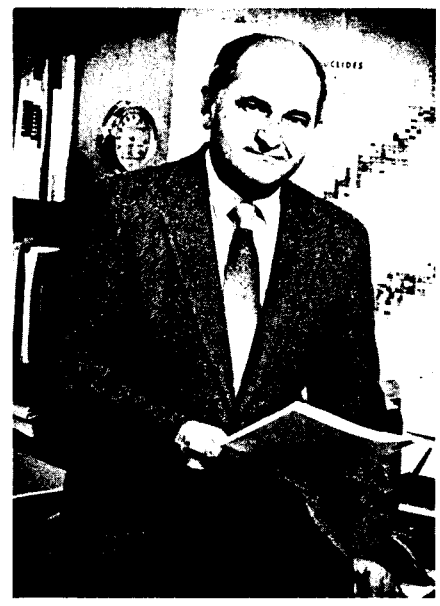
BNL Lecture Strange Nuclei

Baryons, either protons or neutrons mixed in various proportions, form the ordinary nuclei that make up our world. Other baryons, somewhat heavier than neutrons and protons, but similar to these nucleons, are called hyperons. Hyperons possess a quantum number called strangeness which distinguishes them from nucleons. They have a lifetime which, while short compared to that of nucleons, is long enough for them to form nuclei with strangeness, or hypernuclei. These hypernuclei have properties which are similar, but not identical, to ordinary nuclei. Studying hypernuclei helps us to understand the forces that act between baryons. In turn, it is hoped to gain a better understanding of both strange and ordinary nuclei.

A Brookhaven Lecture on "Experiments With Strange Nuclei" will be delivered on Wednesday, December 8, at 8 p.m.in Berkner Hall, by Robert E. Chrien, head of the Intermediate Energy Nuclear Physics Group. He will describe the experimental program at the AGS with an emphasis on the special techniques used to study hypernuclei. The goals and accomplishments of the program will also be described.

The Intermediate Energy Group explores nuclear properties with the hypernuclear beam line at the AGS--a unique facility in the world of physics. So far, the group has succeeded in studying two kinds of hypernuclei: those containing a lambda-zero hyperon and those containing a sigma-minus hyperon.

Robert Chrien came to BNL in June 1957 as a postdoctoral research associate and joined the staff in 1959. He holds the title of Senior Physicist. He is a graduate of Rensselaer Polytechnic Institute and has a doctorate from Case Institute (now Case-Western University). Chrien is a former leader of the Neutron Physics Group and is known for his work in neutron cross sections and resonance neutron capture gamma rays. He also spent several years at Chalk River Nuclear Laboratories as a BNL representative. He is a member and past chairman of the DOE Nuclear Data Committee and the Nuclear Energy Agency Nuclear Data Committee. Chrien is a fellow of the American Physical Society and a member of Sigma Xi, the New York Academy of Sciences, the AAAS, and the Nuclear Physics Division of the American Chemical Society.


Mort Rosen

Robert Chrien

On the evening of the lecture, a buffet supper will be served at the Brookhaven Center at 6:30 p.m. The price is $7.50 and reservations should be made by calling Ext. 3541 before 5 p.m. that day.

Tune-In

Q: *Would someone please explain in the Bulletin why the AUI Scholarship eligibility deadline was changed by 11 months, one month before applications were due, bringing into the already fierce competition children of employees employed only one day.*

A: AUI holds the opinion that new employees who are committing their work lives to Brookhaven National Laboratory and the National Radio Astronomy Observatory for the foreseeable future should not be excluded from this opportunity for their children.

It is estimated that fewer than five BNL children will become eligible as a result of this change; at time of writing ninety-one children have indicated their intention to compete.

— Jerome Hudis, Assistant Director for Scientific Staff Policy.

Radio Your Hello

If you would like to send a holiday greeting to friends or relatives in the U.S. and elsewhere, the amateur radio service will be glad to do it for you.

Dave Potter and George Walczyk, BNL ham radio operators, are your first contacts. Call Potter at 472-2394, or Walczyk at 698-3918. They will start your message on its way through the amateur radio network. When it arrives at its destination, your message will be phoned to the recipient, or if phone service is not available, will be sent by local mail.

Amateur radio operators are an important facet of emergency communications and they are required to build up the skills needed in handling message traffic. They are licensed to transmit personal messages and holiday greetings, but cannot relay business transactions. They can send a personal message for you not only during the holiday season, but at any time of the year. The service is free.

Ham operators are permitted to transmit messages in the U.S. and 28 other countries. In North and Central America these countries are Canada, Costa Rica, Cuba, Dominican Republic El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama. In South America - Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela. Other countries in the amateur network are Israel, Jordan, Ghana, Liberia and Switzerland (Geneva). Messages to servicemen are the exception. They can be sent anywhere in the world.

Employee's Alertness Pays Off

This is the story of what transpired when a certain transformer was transported to the salvage section of the Supply & Materiel Division. There, Lou DiCarlo helped to transform the oil in the transformer into a source of fuel.

The equipment in question is huge. In addition it is ancient. When its size and age rendered it rather inefficient for bringing power into the Laboratory, it was declared excess and replaced with a new, higher capacity model.

Turning excess into salvage is DiCarlo's responsiblity. "I'm in the central spot where everybody turns things in," he explained. "When I see something that someone else could utilize, I let them know." But after checking things out, DiCarlo found that the transformer wouldn't be suitable for anyone. "It was an enormous piece of equipment and very outdated," he said. "No other agency could possibly have had a use for it."

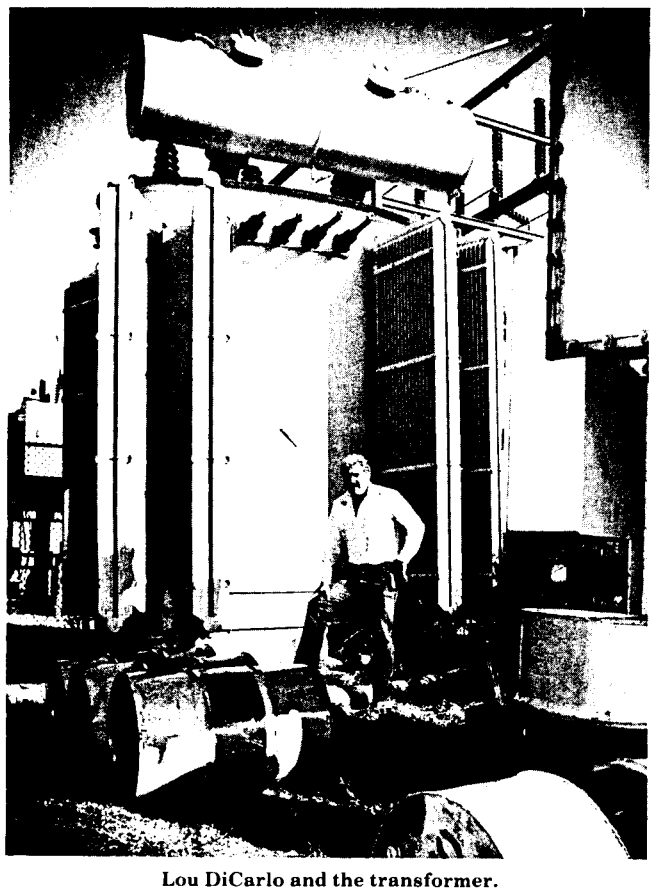
Realizing that the transformer was no longer valuable as a transformer, DiCarlo wondered if it had any other worth. Didn't it contain over 3,500 gallons of oil? Could that be recycled in some way — perhaps in the ALF program?

ALF stands for alternate liquid fuels. In a system developed in 1977 by Plant Engineering's Joe Rose, this mixture of surplus or recycled light feedstock fuels is blended with No. 6 fuel oil and used to run the Central Steam Facility. Being acquainted with the ALF program, DiCarlo placed a call to Ed Rogers in Plant Engineering who is in charge of procuring fuels for use in ALF.

"When Lou DiCarlo called me," Rogers said, "I told him the oil was tested and certified free of contaminants. Then I acted on it, had the oil pumped out of the transformer and into the ALF tanks."

According to Rogers, it cost the Lab about 4¢ a gallon to put the oil into the ALF tanks, as opposed to the going rate of 77¢ per gallon for virgin No. 6 oil, for a total savings of more than $2,500. "Supply and Material personnel like Lou DiCarlo are really on top of things," said Rogers. "They're on the alert to save money for the Lab."

Further proof of this is the fact that the transformer unit itself was sold for its scrap content. But DiCarlo is modest about these accomplishments. "I'm always on the lookout for ways to utilize things that come in here," he said. "That's my job."


Mort Rosen

Lou DiCarlo and the transformer.

Council Calls For Comments

At the request of the Director, the BNL Council has formed a committee to determine whether BNL's internal structure and staff policy provide adequate protection to all staff members to express opinions in the event of policy or technical disagreements. The committee wishes to receive comments from BNL staff on these issues. Such comments may be directed to Robert Marr, Bldg. 515, Ext. 4147 and will be treated as confidential, if requested.

Arrivals & Departures

Arrivals

James O. Barnett ..... Personnel
George S. Brown ..... NSLS
JoAnn M. Fields ..... Chemistry
Peter D. Johnson ..... Physics
Donald F. Koenig ..... Biology
Maria Yanez ..... Contr. & Proc.

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:

R. Douglas Carlson ..... Biology
Benaissa Baggoura ... Nuclear Energy
Manouchehr Kaviani .... S. & E. Prot.
Dora B. Krimer ..... Biology
Sergio Moehlecke ..... Physics
Madeline Meo ..... Chemistry
Charles V. Robinson ..... S. & E. Prot.

Information For Next Semester

Both Suffolk County Community College (SCCC) and St. Joseph's College will be offering courses on site for the Spring 1983 semester. Registration for all courses will take place from January 10-14, 1983, in Room 112, Bldg. 460. Counselors from St. Joseph's College will be there on January 13 and 14, from 11:30 a.m. to 1 p.m. and 2 to 3 p.m.

Tuition fees of $34 a credit for SCCC and $95 a credit for St. Joseph's College can be paid by check, money order, VISA or Mastercard. Full-time employees should obtain the proper form from Personnel to apply for tuition refund. For those who do not have a high school diploma, SCCC will grant a General Equivalency Diploma upon completion of 24 credits.

All courses will be in session for approximately 14 weeks and books will be sold the first night of each class. For more information, contact Renee Flack, Ext. 3316.

SCCC — Spring 1983 Course Offerings

	Course	Cr.	Day	Hours	Start Date
DP11	Intro. to Computing	3	M/W	5:15-7:05	1/31
TE38	Digital Electronics	3	M	5:15-9:15	1/31
MA23	Statistics I	3	T	5:15-8:15	2/1
ES17	Intro. to Weather	3	M/W	5:15-7:45	1/31
BA56	Personnel Administration	3	Th	5:15-8:15	2/3
EG55	Mass Media	3	Th	5:15-8:15	2/1
EG11	Freshman English Composition	3	Th	5:15-8:15	2/1

St. Joseph's College — Spring 1983 Course Offerings

PHI168	Management Ethics	3	M	5:15-8:15	1/24
BUS125	Principles of Finance	3	T	5:15-8:15	1/25

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Science Shop Open

To help you with your holiday shopping, the Science Shop at the Exhibit Center will open its doors on December 9, 10 and 17 from 11 a.m. to 3 p.m. As well as some old favorites such as the gyroscope, weatherama and solargraphics, the Science Shop has stocked some new items, among them: magnifier with case 75¢, portfolio $3.00, child's rainbow umbrella $5.00, and new tote bags, red, brown, blue $6.00. There are over 50 items on the shelves, but don't wait until the last minute to do your shopping because some items are limited in quantity.

The Science Shop is located on the west side of Bldg. 701, and parking at the north entrance.

WIS Meeting

The next meeting of Women in Science is scheduled for Thursday, December 9, at noon, Room A, Berkner Hall. The speaker will be Dr. Sharon Smith of DEE's Oceanography Division, and her subject will be "INDEX, The Indian Ocean Experiment."

Sharon Smith participated in 1979 on an international study of the Northwestern Indian Ocean and its monsoons. It was the first time the biology of this area had been described. She has also been a member of numerous other scientific cruises in various parts of the world.

Everyone is invited, and please bring your own lunch.

I.B.E.W.

Local 2230, I.B.E.W. will hold its regular monthly meeting on December 16, at 6 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report. Please note date.

Local Events

• The Town of Brookhaven Youth Bureau is again directing a Christmas/Hanukkah Toy Drive for needy Brookhaven youngsters. Your contributions can be dropped off at the Colonial Youth Center (William Floyd High School), or at YMCA Outreach Services, Mastic Recreation Center at Herkimer and Classon Streets in Mastic, before December 17. The Brookhaven Youth Bureau is responsible for planning and coordinating the Town's youth projects.

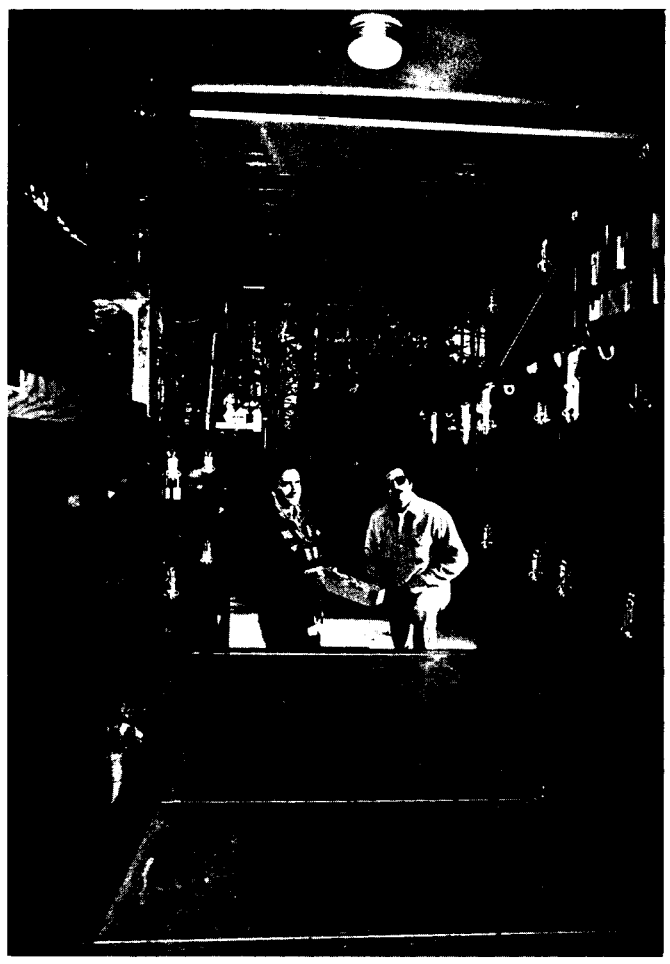
• The Bay Area Friends of the Fine Arts (BAFFA) will feature pianist Doris Anne McMullen in the first concert of the 15th season of the BAFFA Symphony Orchestra, conducted by Mark Orton. The performance is at 3 p.m., Sunday, December 5 at the Sayville Jr. High School, Johnson Ave., Sayville. Tickets are $5 general admission; $3 senior citizens and students.

New Wheels For Plumbers

Years ago, standard equipment for a plumber was a bucket with a wrench, a pair of pliers, a screwdriver and a couple of washers thrown in. All that has changed. Today, a properly equipped plumber has to carry around 300-400 different parts to handle any repair job that might come up in a place as large and diverse as Brookhaven.

Now, those hundreds of items are being carried by a new service truck that was specially designed, built and outfitted for the job.

The idea of converting from bucket to truck is actually not new. It was first done by plumber Frank Fridrich, who several years ago set up a carry-all truck so he could cart around a little bit of everything.



Mort Rosen

Plumber Louis Graziano (left) and cabinet maker Frank Candiano.

But the carry-all never had enough room to organize parts properly. Another problem was lack of interior working space. The plumbers too often had to return back to their shop to finish jobs that couldn't be done in place or on the floor of the carry-all.

The new truck was designed by Jose Medina in Plant Engineering's maintenance management group, with input from the plumbers and from cabinetmaker Frank Candiano, who did the custom cabinetry that keeps all the parts in place.

A major addition is a work table, with a permanently mounted vise. Says plumber Louis Graziano, who will be operating out of the truck on a regular basis, "Now I can work standing up instead of kneeling down. It certainly beats working on sidewalks, too."

Graziano and his new service truck respond to all "water" calls. They generally handle short order maintenance jobs, the kind that take less than an hour to finish.

Basketball

The 1983 season of the BNL Basketball League will officially get under way on Thursday, January 6.

Signup for those who would like to join the league will take place at the gym on Thursday, December 9, between 5:30 and 9 p.m.

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to New York City on Wednesday, December 15. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $3.50; children under six years ride free.

Reserve a ticket by sending your fare through the U. S. mail to Hospitality Committee, P.O. Box 322, Upton, New York 11973, no later than Thursday, December 9. Please make checks payable to Brookhaven National Laboratory, and put the date of the trip, your BNL life number and your telephone number on the check. Tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Monday morning preceding the trip.

Microcomputer Club

The Kaypro2 will be demonstrated at the December 9 meeting from 12 - 1 p.m. at Bldg. 463 (Small Conference Room). The meeting is open to all. For more information call Jim Hainfeld, Ext. 3372.

Winter Is Coming

All the Laboratory vehicles have been prepared for the season; heaters have been checked and antifreeze added.

The Automotive Maintenance Shop requests that no water be added to cooling systems except in emergencies, and, if such an emergency occurs, that they be notified so that antifreeze can be added to insure continued protection.

BNL Singers

In preparation for their annual Christmas concert, which is scheduled for noon on Wednesday, December 22 in the cafeteria, the BNL Singers have sceduled rehearsals for December 7, 9. 14, 16 and 21. All rehearsals will be held at noon sharp in Berkner Hall auditorium.

Bowling

Red/Green League

R. Wiseman had games of 241/200/634 scratch series, C. Bohnenblusch 208/202, J. Bohenek 213, R. Sick 211, B. Kristiansen 208, J. Petro 207, K. Asselta 204, N. Fewell 202, J. Muller 201, L. Jacobson 201, R. Adams 200.

White League

V. Manzella bowled a 220, J. Petro 213, K. Asselta 203, E. & R. Adams 202 each, G. Fales 201, S. Smith 195.

Pink League

M-G Meier rolled a 182, H. Keeley 201.

Purple League

A. Pinelli 221, P. Caligari 208, M. Connelly 205, K. Riker 201, L. Barberich 192, B. Jellett 541 series, Razors Edge 875 game, 2462 series.

Hospitality News

The Hospitality Committee's next morning get-together will be on Tuesday, December 7, from 9:30 to 11:30 a.m. at the Brookhaven Center. A presentation by Margaret Wiggins on "Christmas in America" will be featured. In addition to this presentation, Origami, a technique of folding paper into decorative forms, will be demonstrated by some of our Japanese friends. They will show how to use this craft to make various Christmas ornaments.

Wives of Laboratory employees and guests are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

Cooking Exchange

The next meeting of the Cooking Exchange is on December 8 at 12:30 p.m. in the Recreation Building. The theme will be Hanukkah specialties. Come and see potato latkes prepared along with other favorites of this holiday season.

Babysitting is provided at 50¢ per child. Call Adrienne Usher, 289-7658, or Dee Polychronakos, 744-3578 for further information.

Cafeteria Menu

Week Ending December 10, 1982

Monday, December 6		
Chicken noodle soup	(cup)	.65
	(bowl)	.75
Fish Newburg on rice		1.95
Western omelet & hash browns		1.80
Hot Deli — Pastrami	(bread)	1.85
	(roll)	1.95
Tuesday, December 7		
Vegetable soup	(cup)	.65
	(bowl)	.75
Sauerbraten potato pancake w/red cabbage		2.14
Shells w/meat sauce & garlic bread		1.85
Hot Deli — Bratwurst & sauerkraut	(bread)	1.85
	(roll)	1.95
Wednesday, December 8		
Cream of potato soup	(cup)	.65
	(bowl)	.75
Veal in sour cream sauce & 1 veg.		1.90
Tuna á la king on white rice		1.85
Hot Deli — Cheddar cheese steak hero		1.95
Thursday, December 9		
Chicken okra Creole	(cup)	.65
	(bowl)	.75
Savory baked boneless breast of chicken & 1 veg.		1.95
Spinach quiche & 1 veg.		1.80
Hot Deli — Top round of beef	(bread)	1.95
	(roll)	2.05
Friday, December 10		
Clam & celery bisque	(cup)	.65
	(bowl)	.75
Grilled chopped steak w/mushrooms & onions w/1 veg.		1.95
Turkey pot pie & 1 veg.		1.85
Hot Deli — Clam boat		1.95

Volleyball

Mixed League
A Division

Final standings for the first quarter:

Teddybares	12-3
Dinkers	10-5
EPO's	9-6
Mixed Ups	8-7
Nuts & Bolts	6-9
Nuclear Wastrels	1-14

B Division

Standings as of 11/29:

Phoubars	11-1
TNT	11-1
Up Fagrabs	8-4
Puff & Stuff	7-8
Semi-Tough	6-6
KMA	5-7
Chungas Revenge	5-7
Nuke Yorkers	4-8
Screwballs	2-7
Quirks	1-11

The **Open League** did not have games scheduled last week because of the holiday. Standings will be posted in next week's Bulletin.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

SCIENTIFIC POSITIONS OPEN: The following staff positions are open. Candidates may apply directly to the department representative named, or through the office of Scientific Personnel, Ext. 3338.

POSTDOCTORAL RESEARCH ASSOCIATE - Radiological and Chemical Physics Group. Seek recent Ph.D. in experimental physics with an interest in radiation/atomic physics and experience in FORTRAN programming, to measure fundamental radiation dosimetry parameters, and develop radiobiological modeling. Contact: M.N. Varma, Safety and Environmental Protection Division.

LABORATORY RECRUITMENT: Opportunities for present Laboratory employees.

1805. FIREFIGHTER - Previous substantial firefighter experience is required. Completion of New York State EMT course and possession of training certificate is highly desirable, if not, completion of course within one year is required. Must be willing to work shifts at the completion of a thirteen week training period. Safety and Environmental Protection Division.

1806. TOOL AND INSTRUMENT MAKER - Central Shops Division.

1807. CARPENTER, GROUP LEADER — Plant Engineering Division.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1808. CARPENTER (Temporary Openings) - Under minimum supervision lays out, constructs, modifies and maintains buildings and component parts from construction drawings, rough sketches or verbal instructions. Works with wood, wood substitutes, and combination materials and flooring, roofing and wall materials. Plant Engineering Division.

1809. PAINTER A (Temporary Opening) - Under minimum supervision, performs wide variety of interior and exterior skilled painting operations on building, furniture, and Laboratory equipment. Must know use and application of paints, synthetics, bleaching materials, stains and similar products. Plant Engineering Division.

1810. CLERICAL POSITION (Half-Time) - Requires excellent typing and computational skills. Knowledge of word processing or the willingness to learn is essential. Personnel Division. (Reposting of Job #1744).

1811. COMPUTER OPERATIONS POSITION - Requires AAS degree in data processing or successful completion of computer operations training program or equivalent experience. Will assist in the operation of a large electronic digital computer. Applied Mathematics Department.

1812. TECHNICAL POSITION - Requires AAS degree in electrical technology or equivalent and a minimum of four years' experience in the construction, testing and troubleshooting of high current power supplies and/or process control systems. Accelerator Department/Colliding Beam Accelerator Project.

1813. TECHNICAL POSITION - Requires AAS in engineering or physical science or equivalent. Responsibilities include the monitoring of radiation and contamination at the AGS and accurate recordkeeping of personnel exposure. Prior training or experience in health physics very desirable. Shift work. Safety & Environmental Protection Division.

1814. TECHNICAL POSITION (Two openings) - Requires a minimum of 3 years' experience in the maintenance of Control Data 7600 computer systems and related peripheral equipment. Possible shift work. Applied Mathematics Department.

Autos & Auto Supplies

68 VW - conv., new paint & top, excel. cond., $2,500. 286-0939.

79 HONDA - Twin-Star, low mi., excel. cond., $750. Ext. 7979 or 261-5030.

78 FORD LTD - station wagon, p/s, p/b, a/c, roof rack, rear defroster, 55,000 mi., excel. cond., metallic brown. $2,500. JU8-9491 after 5 p.m.

69 FIREBIRD CONV. - mag wheels, best offer. Scott, 399-1157 or 281-1862.

72 TRAVELALL - International 1010, p/s, a/t, p/b, $900. 286-9389.

74 FIAT - needs work, good for parts, very good tires. Susan, 928-4724 after 5:30 p.m.

75 DATSUN - B210, 88K mi., 4 spd., clean, new exhaust & alternator, $1,700. D.J., Ext. 7608.

71 CHEVY PICKUP - 3/4 ton w/cap, V8, 18,000 mi. on new eng. Ernie, Ext. 4688 or 727-2861 after 5 p.m.

70 VW BUG - 16,000 mi., on prof. rebuilt eng., body good for parts only, $350. 744-0024 eves.

79 HONDA - CM400T, 2,000 mi., garaged, must sell, $1,000. Ext. 7125.

CAMPER - slide on, for 8' pickup, sleeps 4, sink, stove, ice box, $800. 567-8811.

CHEVY TRANSMISSION - 4 spd., excel. cond., $125. Artie, Ext. 2697 or 325-0743 after 6 p.m.

OLDSMOBILE CUTLASS SUPREME - 4 dr., auto., a/c, radial tires, p/s, 60,000 mi., excel., $1,900. 758-6238.

54 PONTIAC - runs, needs work, $250; 1967 Buick, grandma's car, $800. 286-1829.

74 CAPRI - silver, 4 spd., decor group, radio, radials, 26 mpg, clean, reliable, $1,100. Ext. 4340.

PARTS - for 1971 Pinto. John, Ext. 4976 or 744-4386.

76 FIAT - 131S, 5 spd., 2 dr., a/c, am/fm, asking $1,500. Ext. 2521 or 928-8379 eves.

72 SUPER BEETLE - new eng., new paint, excel. mech. cond., like new, $2,200. 758-7807.

73 PLYMOUTH FURY - 4 dr., a/c, heater, radio, new tires. Ext. 3036 or 427-0768 eves.

74 DODGE - Swinger, 2 dr., 6 cyl., p/s, auto., hi mi., $800. Walter, Ext. 3399 or 567-9025.

SNOW TIRES - (2) L78-15, studded, mounted on Ford pickup rims, $45/pair firm. Ext. 2304 or 286-2749 after 6 p.m.

74 TOYOTA COROLLA - 2 dr., hi mi., runs well, asking $1,000. Marjorie, Ext. 3396.

70 GRAND PRIX - auto., all power, new brakes, stereo, need cash, $450. 924-3281.

76 MONTE CARLO - auto., a/c, am/fm stereo, good cond., $2,800. Ext. 5320 or 941-4820.

56 BUICK TRANSMISSION - Dynaflow; Buick straight 8 cyl. head; late '30's Buick standard transmission; Mercedes slant 6 head. 878-0201.

USED CARS - good, $900 and up. Steve, 929-6877 after 5:30.

78 CHEVETTE - auto. trans., 2 dr., 4 cyl., excel. cond., $1,800. Ext. 4422 or 878-0325.

Boats & Marine Supplies

12' BOAT - fiberglass w/7-1/2 HP motor, $350. 473-1175.

20' O'DAY - 1978 sailboat, KCB, 3 sails, engine, many extras, like new. 289-0925.

12' ALUMINUM BOAT - with trailer, 7 HP motor and extras, good cond., $850. 744-9429.

KAYAK - fiberglass, paddle, airbag, $180. Ext. 2521 or 928-8379.

DANFORTH ANCHOR - #13-S, for boats up to 34' with 250' 3/4" nylon line, $75. Ext. 4312.

Free

CALICO CAT - female, spayed, declawed, good disposition. Ext. 3301 or 281-6108.

Miscellaneous

INNOCENCE - the first album by John O'Brien (DNE) and Jorge Ubiles (Physics) is now available for $4.99 at Long Island Sound, Southampton; Mother's Music, Patchogue; Ronny's Records, Port Jefferson ($1 discount for Lab employees); Uptown Records, Port Jefferson Station; Westhampton Beach Record Shop.

LCD WATCH PENS - $4.50; LCD watches, ladies, teen, childs, from $6 up; LCD clocks, $6 & up; am/fm Walkman type radios, $19; am/fm headphone radios, $20; Bearcat 4 channel scanner, $90. Paul, 727-4859.

TRANSCEIVER - 2 meter, YAESU FT-207R w/$100 accessories, mint, $225. 744-9677.

CONTENTS OF ESTATE - dresser; chairs; mirrors; rugs; table; desk & more; electric bed, single size, good cond., asking $500. Pat, Ext. 4628 or 286-8490.

STORM/SCREEN DOOR - aluminum, 36" w/frame & hardware, $25. R. Hildenbrand, Ext. 3273.

40 GAL. TANK - glass lined, 1 HP, 2 stage deep well pump. H. Henck, 281-5626.

FIREWOOD - split, seasoned oak, 4'x16'x18", $110 delivered. 732-2849 after 6 p.m.

KEROSENE HEATER - large, used one season, $75. 473-2614.

BEDSPREAD - quilted, full size, pink flowers, green leaves, white background, hardly used, $7. Linda, Ext. 2733.

KEROSENE HEATERS - Radiant King, 8,500-20,000 BTU, factory-sealed cartons, discount prices, guaranteed. Jim, 924-7665 eves.

CHILD'S SKIS - 110 cm, Tyrolia bindings, Dolomite boots, size 13 & poles, $60. Ext. 3313.

SKI BOOTS - Nordica brand, 3 seasons old, moldable foam inner-sole construction, men's size 10, polyetheline shell, very good cond., $65. Mary, Ext. 4132.

CARTRIDGE DISK DRIVE - Diablo model 44B, 10 megabyte capacity, Codex modems (2) 4800's, (1) 9600. Ext. 3160 or 289-5704 after 5:00 p.m.

REFRIGERATOR - 2 cu. ft.; regulation pinball machine. 473-1175.

RECLINER - white velour, new $160, asking $60. LT9-2100.

ENGLISH COCKER PUPPIES - born 9/26/82, ready for Christmas. 1 male, 1 female, Blue Roan, B & W, champion & show bloodlines. 286-1662 eves.

PRESSURE CANNER - Mirro-matic, new, $40; 3-piece guardian aluminum heavy pots, $13.50; fir & spruce trees, u-dig, 2 for $7. 878-6637.

WARMING TRAY - 15" X 10", like new, $15. 744-9677.

STERLING SILVER SET - for 8, $1,250; child's silver plated silverware, 6 pc. set, $25. 475-0144.

SNOWMOBILE - Snow Jet, runs excel., $150. D.J., Ext. 7608.

DINING ROOM SET - Jacobean 9 pcs., solid oak, table, chairs, china closet & server, $2,500. 928-1020.

LIVING ROOM CHAIRS - (2) curved, slip covered, excel. cond., $100. 286-1253.

CONN ORGAN - 2-key board w/rythm, $500; 2 Pevey PA speakers, $250. Dick, 722-3251 after 6 p.m.

CHESS CHALLENGER - Fidelity voice, advanced, opening book, excel. cond., $80. Jim, Ext. 4502.

DRYER - $40. Ext. 5334 or 892-7998.

OAK FIREWOOD - (1) cord, you pick-up, $85. Vince, Ext. 4660.

FREEZER - Whirlpool, upright, 20 cu. ft., 5-1/2 yrs. old, asking $250. 751-6418.

ATARI CARTRIDGES - Tennis, Trick Shot, and Ice Hockey, $15/ea. 744-8063 days.

FURNITURE - comtemporary couch (90"); 4 chairs; 2 lamps; 2 end tables; like new, $450. Nancy, 289-1627.

PRINCE TENNIS RACQUET - classic, alum. frame, nylon strings, never used, 4-1/4" grip, $35. Carole, Ext. 3362.

FURNITURE - triple dresser, recliner, bed frame, carriage, crib, table, bench, good cond., reasonable price. Ext. 3503.

SKIS - Dynaster, 130 Tryolia bindings, Hanke boots, $25 takes all. Ext. 7148 or 363-2522 after 6.

HIDE-A-BED SOFA - Castro type mechanism, colonial style, like new, $375. 744-9429.

RED POINSETTAS - 4, 6 and 10" pots, hanging baskets, fair prices, deliver 12/10. 727-6818.

STEREO RECORD PLAYER - Lafayette, like new, cost $70, asking $35. Ext. 2364 or 929-8944.

DOUBLE BED - with bookcase, headboard; dinette set; couch; upholestered chair; Garrard auto turntable; pole lamp. 744-6874.

GIRL'S BICYCLE - hi-rise, 20", excel. cond., $45; am-fm stereo with cassette recorder and 8 track player, excel. Xmas gift, excel cond., $140. 878-0197.

DINGO BOOTS - size 8, leather, used, best offer; rain hat, Dunn & Co., size 7-1/4, never worn, $10; ice skates with boots, size 4, $10 or best offer. Ext. 2914.

BASF BLANK TAPE CASSETTES - C-90 Pro II CrO2, $2.75/ea. Ext. 2521.

COUNTER RANGE - Caloric Ultramatic, 4 propane burners, stainless steel finish, very good cond., $100 or best offer; kitchen cabinets and counters, all formica, various sizes from a 12'x18' kitchen, good cond., reasonably priced; wall oven w/infrared broiler, Caloric Ultramatic, propane, stainless steel finish, very good cond., $150 or best offer. Ext. 2492.

DINING SET - walnut, table, 6 chairs, triple breakfront, price neg. Eileen, Ext. 4949 or 924-4922.

SKI BOOTS - women's size 6-1/2, Munari 3-buckle, $20; Head skis, 200 cm, $15; fireplace screen with andirons, 38" wide x 31" high, pull-chain to open, $12. Bill, Ext. 2906 or 929-6189.

RIDING MOWER - 8 HP, Briggs & Stratton, 26" cut, adj. height, excel. running, $300. Chuck, 475-1388 eves.

WELL PUMP - motor, tank, all one unit, Sears best. Ext. 3392 or 475-8330.

OAK TREES - cut the trees, take the wood. Walt, Ext. 2907 or 698-0576.

SHRUB/HEDGE TRIMMER - double edged, like new, $15; folding bed, good, $20. 744-3792.

SKI PANTS - men's stretch 34-R, dark blue, never worn, $80. Ext. 4727.

LATHE - 9" swing, 30" bed, 4 jaw geared chuck, compound rest, auto feed, $100. Jack, Ext. 4722.

MINOLTA XD-11 OUTFIT - 50 mmf/1.4, 135 mmf/2.8, 24 mmf/3.2, dedicated flash, mint cond., $395. Nick, 277-5997 eves.

FRENCH HORN - in F, Conn, excel. cond.; men's bicycle, 3 spd., Ross, top cond., 26" wheels. 751-8537 after 5 p.m.

AM/FM STEREO - w/cassette recorder and 8 track player, excel. Xmas gift, $140. 878-0197.

REGULATION PIN BALL MACHINE - 473-1175.

BICYCLE - men's 3 spd., Ross, top cond., 26" wheels. 751-8537 after 5 p.m.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

WADING RIVER - custom built, 4 bdrm. colonial, 2 baths, d/r, den, f/p, 2 car garage, full basement, private beach. Ext. 7727 or 929-4631.

CORAM - 2 yr. old ranch, 3 bdrms., eik, d/r, l/r, garage, completely landscaped, fenced-in backyard, 15 min. to Lab, $52,000, asummable mortgage (FHA 235 (4%)) if qualified. 732-6489 after 5 p.m.

For Rent

BELLPORT VILLAGE - furnished 1 bdrm. cottage, steps to shops, avail. through May, $350/mo. 286-3298.

PATCHOGUE - all new, 1 bdrm. apt., patio facing brook, a/c, f/r, garage, w/w, eik, $600/mo. pays all. 289-5811 after 3:30.

PORT JEFFERSON - spacious 1 bdrm. apt., full bath, separate ent., lovely area, $450. 473-8470.

SOUTHOLD - winter rental, waterfront, $300/mo., single or couple only, util. not incl 286-8740 after 8 p.m.

ROCKY POINT - 1 bdrm. apt., l/r, eik, private ent., furn. or unfurn. 744-8901 after 6.

BELLPORT - 2 bdrm. apt., 1 person only, $325 incl. util. 286-9051.

SHIRLEY - 1 bdrm. furn. apt., walk to beach, use of washer & dryer, $400/mo. incl. util. 399-0327.

VERMONT - 3 bdrm. house, f/p, fully equipped, beautiful view, woodland trails, x-country & downhill skiing, reasonable vacation, family oriented, avail. weekly or weekends. 732-6499 after 6 p.m.

BAYPORT - 1½ acres, 3 bdrm., l/r, kit, 2 car garage, partially furn, oil hot water, ~~Nov.-May, $~~600/mo. or for sale $150,000. 472-2633 after 6 p.m.

Carpools

PATCHOGUE - on time pool, opening for paying rider. Alyce, Ext. 2902.

PORT JEFFERSON - nonsmoking fifth driver for congenial flexible pool, 8:30-5:30. Bill, Ext. 4505.

MASTIC - rider, 8:30-5:00. Ext. 3301 or 281-6108.

PATCHOGUE - between Rt. 112 & Waverly Ave., 495 to 27A, 3-person pool needs fourth rider/-driver, 12/1. John, Ext. 4615 or 475-6981.

Wanted

BLUE MAX - RC unit for parts. Ext. 4539.

HOME - for male German Shepherd, black/tan, medium size, good tempered, disciplined, quiet, friendly. Lois, Ext. 2959 or 751-1920.

BOY'S BIKE - 16", good cond., reasonable. Ext. 4605.

MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.

TRANSMITTER - Sears digital control, must be model Y. Maryann, Ext. 5241 or 286-3377 after 6 p.m.

WORKING WOMEN - new members for business & professional women's club, National & International Affiliations. Alyce, Ext. 2902.

PERSONS INTERESTED - in skiing Whiteface Mountain, Lake Placid, Jan 28-30. For info. call Bea, Ext. 3571.

PERSONS INTERSTED - in skiing at Catskill Resort, Dec. 27-30, $165 incl. transp., meals, accom., open bar. Kathy, 281-5605.

SPEAK AND READ - or Speak & Spell w/additional modules. Bill, Ext. 2669.

DOG PEN - large for transporting a Bloodhound. Ronnie, 281-1862.

PRIVATE TUTOR - for 12th grade Calculas student, Bellport/Brookhaven area. Ext. 4676 or 286-9721 eves.

U.S.M.M.A. ALUMNI - Kings Point graduates interested in an informal gathering of BNL/KPers. Mike Brooks, Ext. 4414.

TRAINS - Lionel, American Flyer, access., any cond. brings good price. Carole, Ext. 3362 or 924-4097 eves.

HOUSEMATE - mature woman to share house with female, Patchogue area, $200/mo. 289-1619.

GM TODDLER CAR SEAT - Artie, Ext. 2697 or 325-0743.

MONTE CARLO - 1978 or newer, no engine needed, any cond. Ed, Ext. 2674.

MINERALS - mineral collections, old books (any language). Plotkin, Ext. 4717.

LOCKSMITH - key duplicating machine to buy. Ext. 3301 or 281-6108.

HOUSEMATE/TENANT - room available in spacious house in Middle Island. Gary, 924-7480.

ATARI VIDEO GAME - in good working cond., willing to pay $60. Ext. 7117.

Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by the Bulletin.

LICENSED ELECTRICIAN - reasonable rates, no job too small, commercial, residential, security lighting, service changes. 744-0722.

FIRESIDE CHIMNEY SWEEP - fireplaces, wood, coal and oil flues, dustless removal, insured, Lab discount. Mike, 732-6874.

MISCELLANEOUS JOBS - high school junior willing to do miscellaneous jobs in Bellport area. 286-3742 eves/weekends.

PROFESSIONAL CARPET CLEANING - $10 a room, spots, stains removed. Frankie. 924-4722 after 6 p.m.

TYPING - Eileen, Ext. 4949 or 924-4922.

WATCH REPAIR - no electric or Timex. George Hrabak, Ext. 3536.

SEASONED FIREWOOD - full cord, delivered, split, stacked, $140. John, 928-3259 6-9 p.m.

SEAMSTRESS - childrens or ladies clothes, any design, custom fit, will do alterations, zippers, etc. 473-3425.

BOARDING - dogs, indoor/outdoor runs, cat facilities, grooming, all breeds, Lab discount. Tony, 288-3535.

HOUSE PAINTING - interior, winter discount, professional, insured, many BNL refs. Bob, 289-7657 after 6 p.m.

CARPENTER - general contractor, extensions, dormers, garage conversions, basements, decks, kitchens, licensed. Jim, 698-2501.

CARPETS INSTALLED - repaired, quick dependable service, free estimates. Jim, 821-0187 after 5 p.m.

BAKED GOODS - holiday cookies and fruitcakes. Adrienne, 289-7658.

TRUCK FOR HIRE - moving, clearing, cleaning, and other misc. jobs, Lab discount. 281-5445.

BABYSITTER - would like to care for your preschooler in my home. Sandy, 286-9266.

PROFESSIONAL DJ - avail. for weddings, private parties, fire depts., schools, variety of music for any occasion, fantastic light show. 286-8862.

OIL BURNER SERVICE - 15 yrs. exper., complete vacuum of fire box, new nozzle, new filter, 24 hr. service. 286-8862.

CLEANING SERVICE - office, home, apt., work done by owners, free estimate, references. Ray, 732-4885 eves.

RESUMES - cover letters, prompt, high quality service. Bill, 821-9081.

LEARN GERMAN - with a German. Barbara, Ext. 3018.

PAINTING - panelling, wallpapering, carpentry, refs., free estimates. John, 924-5012.

LIMO SERVICE - luxury, chauffered for proms, weddings, airport or night on the town. Roy, Ext. 4664 or 744-8779.

AUTO CLEANING - tape pin striping, light body work, Lab discount. Ext. 4297 or 929-6877 after 5:30 p.m.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.