BROOKHAVEN BULLETIN
Volume 34 - Number 4 / January 25, 1980
BROOKHAVEN NATIONAL LABORATORY

DOE Achievement Award To BNL

Brookhaven was recently awarded a Certificate of Achievement by the Secretary of Energy in recognition of the Lab's initiatives in using small business firms in its contracting program. The award was granted because BNL has not only met its established small business goal, but has also engaged in significant new activities to increase participation of small business firms in the contracting program. David Schweller, Manager of DOE's Brookhaven Area Office, awarded the certificate to Laboratory Director George Vineyard. Also present were Vincent O'Leary (center), Associate Director, and James Desmond, Business Manager. —photo by Humphrey

Doubling Data At The Tandem

If you really need something and you can't buy it, then you make it. That is what the computer group did at the Tandem Van de Graaff facility.

Roger Lee, Bob Scheetz and Betty McBreen, who make up the computer support group, built a machine that collects data. They call it Data Collection Station Number 2.

Station 2 takes data from experiments and stores the data in its memory, which is periodically read by the Tandem computer. It has a memory of 256K bytes. (If it takes 4K memory to play a tic tac toe game, imagine the capacity of 256K.)

Lee and Scheetz started to design the new collection station three years ago. Realizing the commitment in time and effort, they would have preferred buying one. But since nothing appropriate was commercially available, they bought memory cards and crates and began working on the hardware. McBreen joined the group later and helped write the software (programs) necessary to interface the station with the computer.

The new collection station was greatly needed by experimenters who use the two Tandem accelerators. In the past, data from only one experiment at a time could be collected by the old machine, Station 1, which did not have its own memory and passed data directly to the computer.

With the addition of Station 2, data from two experiments can be collected simutaneously. Because the new station has its own memory, the computer is less burdened with data and can be more efficiently used for data analysis. And since Station 2 was designed to be more independent of the computer, it will be easier to interface with other computers, should the Tandem facility purchase a new computer in the future.

Station 2 was put into service a few weeks ago. Flushed with success, the computer group is already making plans to upgrade Station 1.

Recycling Scrap Into Dollars

The price of metals has been a big news item for some time, with gold playing a starring role. But the value of silver, copper and other metals, which are much in demand for industrial use, is also on the upswing.

Since its inception, the Laboratory has had a scrap metals program to extract these commodities from equipment and materials that have already served their purposes. Nothing is just thrown in the garbage.

Administered by the Supply & Materiel Division, the Laboratory has an open scrap disposal contract with a scrap dealer. From time to time, the dealer comes to Brookhaven to pick up old batteries, metal turnings, tin, steel, cast iron, brass scrap, and copper wire, which is weighed on a certified 60-ton platform truck scale. The prices paid to the Laboratory are in accord with those published in the "American Metal Market" the day the scrap is picked up. In 1979, BNL disposed of 458.12 gross tons of scrap metals, for which they received $37,210.

Brookhaven also recovers silver from exposed x-ray film, film badges, and from Photography and Graphic Arts film. Last year, over $9,000 was realized from the recovery of silver from hundreds of pounds of scrap film and chemicals.

The Lab does not reprocess the silver. When sufficient material has been collected, Contracts & Procurement goes out on bid for quotes from silver recovery firms. Whoever is awarded the contract picks up the material, verifies the weight, extracts the silver and makes payment to BNL.

The recycling of metals helps both the Lab's economy and the nation's. Any amount is significant. It is important that employees realize their responsibility for the safekeeping of such items under their jurisdiction.

(See Microfiche, p. 2)

Nuclear Waste Disposal:

Patent On Process, Report On Retrieval

Since the summer of 1976, BNL's Nuclear Waste Management Research Group has been assisting the EPA in a program aimed at establishing controls for ocean disposal of low-level radioactive waste. So far, with the group's help, three radioactive waste packages have been retrieved from ocean disposal sites where they were dumped in the '50s and early '60s and brought to Brookhaven for evaluation of how well they stood up to the ocean environment. The detailed analysis of the first package to be retrieved shows that it fared surprisingly well during its years on the bottom of the Atlantic.

The report on the analysis (authored by group leader Peter Colombo, Robert Neilson Jr., and Martin Kendig) was released in late November. Coincidentally, Colombo, Neilson and Walter Becker had just been granted a patent for an improved aqueous waste disposal process which could be used for either land or ocean disposal.

Analysis of Retrieved Package

The first package to be analyzed was retrieved from a depth of 9,800 feet (2800 meters) in July 1976. Dumped in 1961, it consisted of an 80-gallon steel drum filled with a concrete matrix. Embedded in the concrete was an inner steel vessel encasing three filter assemblies used in research by the Army Chemical Corps. The filter assemblies contained cobalt-60, and the matrix, which had been made by mixing concrete and contaminated water, contained radioactive cesium and cobalt.

In the Hot Cell at Building 830, Walter Becker supervised the careful dissection of the waste package. A battery of chemical, metallurgical and radiochemical tests were used to determine the condition of each package element. The steel drum was analyzed for corrosion rates, the concrete matrix was cored and tested for deterioration, and the inner vessel that was finally exposed was examined for leakage. An important part of the work was the analysis of leach rates in the concrete matrix, to determine how well the concrete had retained its radionuclides.

On the whole, the package stood up quite well to the ocean environment. There was very little dissolution of the concrete, and that which did occur was limited to the end of the package where the steel drum had been left unsealed. The concrete was not cracked, and its compression strength was good. Although the inner steel container had imploded due to the pressure differential during the package's descent, it did not leak and so contained its radionuclides.

According to the report, the package could have spent a minimum of 104 years in its ocean environment before the concrete matrix would have lost integrity due to dissolution. The 18-gauge steel drum showed various degrees of corrosion, due to different surface coatings and the fact that it rested in sediment on the ocean floor. From 25 to 37 years would have elapsed before corrosion failure caused loss of the drum's integrity.

Colombo cautions that these estimates (which are conservative) should not be interpreted as applicable to all waste packages which receive ocean disposal. "They apply only to this particular package, located at this particular depth," he said.

Both the specific packaging materials and the nature of the particular ocean environment influence how well a package will fare. For instance, different types of concrete may be more or less susceptible to deterioration, while the oxygen content of the seawater, which varies with depth, has a very significant effect on the corrosion of the steel drum. (The 2800 meter depth at which this drum was located has a relatively high oxygen content. There would be even less corrosion at depths where the oxygen content is lower.)

Because this was the first waste package to be retrieved, the group really didn't know what they would find. In general, Colombo said, the package was in better shape than

Doug Humphrey

Peter Colombo

they'd expected. In particular, he noted, the group was somewhat surprised to find that "much, if not most, of the initial radioactivity was still

(Continued on page 2)

Goudsmit Memorial

The Samuel A. Goudsmit Memorial Lectureship is being established at the University of Nevada, Reno. Goudsmit, a prominent physicist at BNL for many years, and Editor-in-Chief of The American Physical Society, moved to Reno in 1974 and was appointed Distinguished Visiting Professor at the University of Nevada. He died in December 1978.

The purpose of the lectureship is to bring to the university each year an eminent speaker in one of the areas of Goudsmit's special interests which ranged from atomic physics to Egyptology. Most of the lectures would be designed to be of interest to the general public, and publication will be arranged.

Those who wish to contribute to the fund should make out their checks to "Board of Regents," earmarked "For Goudsmit Memorial Lectureship," and send them to William T. Scott, Professor of Physics, University of Nevada, Reno, Nevada 89557.

Arrivals & Departures

Arrivals

Jerome D. Bernstein	Biology
Venessa E. Crump	Energy & Env.
Marilyn Gibbons	Biology
Ady Hershcovitch	Accelerator
Ake H. Kvick	Chemistry
James R. Lanni	Accelerator
Alan B. Packard	Medical
Michael L. Palumbo	Central Shops
Eileen G. Pinkston	Contr. & Proc.
Michael Ponticiello	Plant Engrg.
Raymond L. Rothamel	Accelerator
Jorge B. Schvartzman	Biology
Nicholas M. Veglucci	Accelerator
Mark F. Walker	Central Shops

Departures

Gerald J. Di Cunzolo	Accelerator
Israel Dostrovsky	Chemistry
John J. Fodera	Accelerator
Gerald A. Michels	Physics
Michael J. Mooney	Safety & Env. Prot.
Ilona Moore	Ph. & Gr. Arts
Arthur B. Scott	Appl. Math.
Yosepha Shahak	Biology

Retiring Next Week

William G. Benedict, Accountant, retires at the end of this month. He was in the Fiscal Division for two years and then worked in the Reactor Division for 30 years. Benedict was treasurer of BERA from 1959-74. He may hold a record for carpooling, which he has been doing for his entire career. After leaving the Lab, he plans to do some of the things he has never had time for, like traveling, visiting grandchildren, and motorcycling.

Martha J. Hill, Assistant Supervisory Nurse at the Medical Research Center, is retiring after 30 years. She came to the Lab in 1949 as a Registered Nurse. "I'm certainly not going to sit in a rocking chair," she said of her future plans. In her first year of retirement, she is going to work in her rose garden and take short trips.

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Peter F. Kreh retires from his position as Senior Stationary Engineer in the Plant Engineering Division. He has been with the Lab since 1948. His future plans include a visit to Florida.

—photos by Rosen

Inside Info

Robert W. Young, S&EP, has been appointed Laboratory Security Officer, effective January 21. He is responsible for establishing and administering the security program to assure proper safeguarding of classified information, and compliance with DOE security regulations.

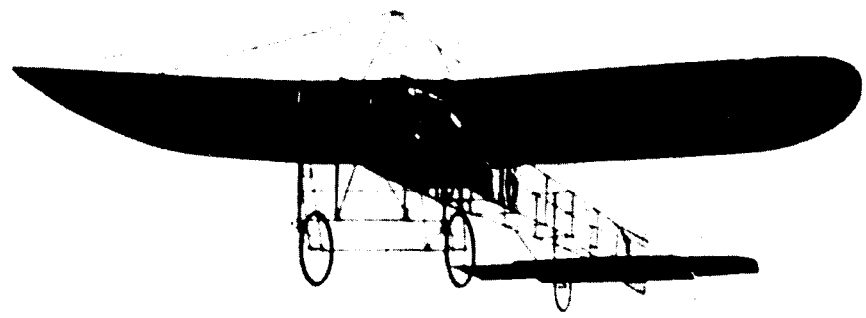
His office should be contacted on matters pertaining to the receipt and handling of classified information, security clearances, classified visits and visits to Soviet-bloc countries.

Call For Microfiche

Users are reminded that Micrographics recycles all original microfiche for its silver content. Original fiche is black, blue duplicate fiche has no silver content. Please return original fiche when it has served its purpose. Address returns to Micrographics, Bldg. T-197B, clearly marked for recycling, and leave them in the Redball pickup and delivery box in your building.

Singers

The BNL Singers will begin regular Tuesday rehearsals starting Tuesday, January 29 in Berkner Hall at 12 noon. We will be singing Irish songs in honor of St. Patrick's Day, and madrigals and show tunes. All interested singers are welcome. For information, contact Peggy Judd, Ext. 2540.



Policy precludes this type of air transport for BNL travelers.

2 Engines And 2 Pilots Required

One result of the deregulation of air fares and routes is the increased availability of "commuter" type air transportation. These aircraft now fly routes no longer, or never, served by major airlines. Some of the new companies use aircraft that are acceptable under BNL's air transportation policy, but others do not.

Staff members may find that in order to get to a certain destination when they are in the field, they must use something other than a major carrier. They are alerted that for their own safety, air transport meeting the following criteria is required, not optional, when they are on Lab business.

The Occupational Health & Safety Guide 1.11.0 entitled "Aircraft Safety" sets forth Laboratory policy in detail and specifically requires, among other things, that:

- aircraft carrying passengers must be "modern multiengine models, capable of continued flight with a critical engine failure;"
- the pilot in command must be an Air Transport Pilot, rated in the aircraft flown, and possess a First Class Medical Certificate:
- a qualified copilot is required.

In brief, one-engine, one-pilot planes are out.

Additional policy statements relating to air travel may be found in SPIs 4-01 and 4-03.

There are many air transports operating within Federal Aviation Agency regulations, but they do not meet the more stringent BNL criteria. Before BNL's Travel Office makes bookings on other than major airlines, the type of transportation is investigated to ensure that it is acceptable. Staff members who may sometimes have to make their own bookings are advised to keep the BNL criteria in mind, and, if they have any questions, to consult with the Travel Office.

Waste Disposal (Cont'd)

contained in the concrete matrix. We had expected more of the radionuclides to leach out."

Patent

Leachability is an important factor when liquid radioactive wastes are solidified for disposal, since a waste form should isolate as many radionuclides as possible from the environment. Decreased leachability is one of the major advantages of the new patented process which Colombo, Neilson and Becker developed for disposing of aqueous wastes.

In the new process, a leak-proof container, such as a 55-gallon drum with a plastic liner, is filled with dry cement which is then densified by tamping down or by vibrating the container. The liquid waste is poured into porous tubes inserted in the container and is allowed to disperse slowly throughout the cement. No mechanical mixing is needed to combine the cement and the liquid--meaning less airborne contamination in the processing area, and fewer contaminated tools. The container is then sealed while the cement sets.

After the cement has cured, the container is unsealed and a mixture of liquid monomer and a polymerization catalyst is poured into the tubes and on top of the cement. The monomer penetrates the cured cement completely before it polymerizes and hardens.

The result is a solid polymer-impregnated cement form which is extremely strong and very resistant to deterioration. And since the radionuclides in the cement are, in effect, "sealed" in place by the polymer, they are much less likely to leach out of the waste form and into the surrounding environment.

The patent application specifies storing the waste form at a designated land disposal site, since the United States does not currently practice ocean dumping. Colombo feels, however, that the process would be very well suited to ocean disposal also, should the decision be made to resume it.

Background On Ocean Disposal

Ocean disposal of low-level radioactive wastes was practiced by the United States beginning in 1946. It was phased out by 1970 in favor of land disposal methods, although several European nations still practice it. Because of increased opposition to shallow land burial on the part of many states, there has been a renewed interest in ocean disposal in the U.S., and the EPA has been assigned responsibility for developing regulations for possible future ocean dumping. BNL's work in assisting with retrieval operations and analyzing the retrieved packages is performed to help the EPA with this task.

International Guidelines

The retrieval work is also being used to help improve existing international dumping guidelines. Last month, Colombo traveled to Vienna to represent the United States at a meeting of the International Atomic Energy Agency's Technical Committee on Containers and Packaging for Ocean Dumping. In addition to informing the Committeee of the Lab's research on waste solidification and packaging, he reported on his group's analysis of the packages retrieved under the EPA program. One of the things he stressed, said Colombo, was the need for more research on the effects of the ocean environment on packaging materials.

At the meeting, the Technical Committee reviewed present guidelines and decided on areas needing further investigation. The Committee's recommendations will be submitted at the next meeting of the international Convention on the Prevention of Marine Pollution From the Dumping of Wastes and Other Material (known as "the London Dumping Convention").

—Anne Baittinger

Nothing Is Simple

The following data are reported to have been compiled by a member of the Saline County (Illinois) Farm Bureau. It is a thoughtful analysis of the costs one might encounter in heating with a wood burning stove:

Stove and installation	$ 458.00
Chain saw	149.95
Gas and maintenance for chain saw	44.60
Pickup truck, stripped	8,379.04
Truck maintenance	438.00
Replace rear window of truck (twice)	310.00
Fine for cutting unmarked tree in state forest	500.00
Fourteen cases of Michelob	126.00
Littering fine	50.00
Tow charge from creek	50.00
Doctor's fee for removing splinter from eye	45.00
Safety glasses	49.50
Treatment of toes broken by dropped log	125.00
Safety shoes	49.50
New living-room carpet	800.00
Paint walls and ceiling	110.00
Chimney brush and rods	45.00
Log splitter	150.00
Fifteen-acre woodlot	9,000.00
Replace coffee table chopped and burned while drunk	75.00
Divorce settlement	33,678.22
Total first-year cost	**$54,632.81**
First-year savings in conventional fuel	**62.37**
New cost of first-year wood burning	**$54,570.44**

Stony Brook Events

Dance Theater: "Dance Fusion," a blend of ballet, jazz, modern dance and tap by the Long Island Dance Co., Feb. 2, 8 p.m., Main Auditorium, Fine Arts Center. Students, senior citizens - $6, $4, $2. General admission - $8, $6, $4. Information: 246-5678.

Recital: Abacus Percussion Ensemble, Feb. 7, 8 p.m., Recital Hall, Fine Arts Center. Information: 246-5672.

Theater: "Dylan Thomas Growing Up," starring Emlyn Williams, Feb. 8, 8 p.m., Main Auditorium, Fine Arts Center. Tickets - $11, $9, $7. Information: 246-5678.

Concert: Chamber Orchestra, Feb. 9, 8 p.m., Recital Hall, Fine Arts Center. Tickets - $1. Information: 246-5672.

Recital: Clarinetist Mary Ann Fovel, Feb. 10, 3 p.m., Recital Hall, Fine Arts Center.

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Letters To The Editor

To the Editor:

In response to the threat of further mass-starvation in Cambodia, a number of us at Brookhaven have recently organized a fundraising committee to help support urgently needed Cambodian relief.

Those who have been following the newspaper reports or who were at the recent talk here by Mr. Larry Simon of OXFAM-AMERICA know a major international effort is underway to save several million Cambodians from starvation. (Despite some newspaper reports to the contrary, the OXFAM group and the other agencies it is coordinating, are succeeding in importing and distributing rice, etc. throughout the countryside. The obstacles are tremendous – trucks, fuel, spare parts, mechanics, etc., must all be imported as well!) According to the U.S. State Department, up to half of those Cambodians who survived 10 years of war and then escaped mass murder by their own government now face death from starvation. They will each need at least a pound of food a day for the next six months until their next harvest.

Although the need may seem so great that a single individual's contribution appears useless, that is not at all the case. The cost of saving the life of a human being like ourselves is ridiculously small according to U.S. standards: 6¢ buys one day's rice for a child; $5.00 feeds 10 adults and children for a week! (How easy it is for us to spend several times that on one dinner out or on a tank of gas!)

We are coordinating a fund drive at Brookhaven to support these relief efforts. Thanks to the generosity of a number of employees, we have already raised several hundred dollars. Our initial goal is to raise $5,000, enough to save several hundred lives. Even a contribution of an hour's wage – a small amount to us, can make the difference between life and death to them. As an added incentive to donors, we have already obtained a matching pledge of $1,000: each $10.00 donation will have an extra $5.00 added to it, so it will do the work of $15.00. Contributions may be made to any of the undersigned, or placed in a cannister at Bankers Trust on site. We are trying to organize various fundraising events (e.g. movies at Berkner Hall) for the next few months, but the immediate need is for donations to buy and ship food and other essentials NOW. Please help – their lives can't wait another day!

—Brookhaven OXFAM Committee

Committee

Peter Gollon, Bldg. 902B, Ext. 7799
Richard Fuller, Bldg. 197C, Ext. 2934
Chip Balzer, Bldg. 475, Ext. 2256
Anthony Fainberg, Bldg. 197C, Ext. 2920
Alfred Campbell, Bldg. 469, Ext. 3354
Linda Feierabend, Bldg. 902C, Ext. 7660
Diana Votruba, Bldg. 902B
Bud Protter, Bldg. 750, Ext. 4423
John Olson, Bldg. 463, Ext. 3382

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, February 6. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $2.45, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than **Thursday**, January 31. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Friday preceding the scheduled trip.

On The Right Course

For the first time at Brookhaven, Suffolk County Community College is offering on-site courses. Sydell Lamb is one employee who is going to take advantage of this new program, which begins late this month.

Lamb has been at the Lab for six years. She started as a glass washer and is now a Senior Technician in Biology. "I knew I didn't want to wash glasses for the rest of my life," she said, "but six years ago, I didn't have any education. So I started taking classes."

After finishing some correspondence courses, she enrolled in the Tutorial Training Program offered by Personnel. She completed basic math, algebra, physics, and organic and inorganic chemistry.

Science has captured her interest. "I think science is fun," she said, "and I like the precision required."

But to keep advancing, she feels that she has to continue her education in science. The next step is an Associate degree from Suffolk. "The new program on site has come at just the right time for me," she said. "I was going to enroll at the Eastern campus in Riverhead, but these courses on site are much more convenient."

Lamb has registered for Technical Math. Taking courses on a part-time basis, she estimates that she will have her degree in four years. Since she has been enrolled in a class of some kind for years, studying and taking exams is now routine for her. Every night, she spends a couple of hours with her studies. "Since all my kids have homework, too, we sit around studying together instead of watching T.V."

She has a family of five children ranging in age from nine to 18. Her husband, Collos, works at the Lab in the Supply and Materiel Division. "I have a very understanding family," she said, "and they support me in this."

Lamb admits to being worried about her performance when she first

Doug Humphrey

Sydell Lamb

started taking courses. "Leroy Jefferson who teaches many of the Tutorial Training courses, talked me through some periods when I had doubts about my abilities." She thinks a lot of people are afraid of failure, so they avoid taking these courses offered on site. "If people start the way I did, slowly, one course at a time, they can build confidence in themselves."

"I'm starting with just one course this semester from Suffolk, because I'm treading new water, too. But I expect to take more next semester."

Registration for the Suffolk courses was Thursday, January 24. But Renee Flack, Ext. 3316, is accepting late registration until the end of Monday, January 28. Besides Technical Math, the other courses offered are Principles of Accounting I, Oral Communications, Freshman English, and Introduction to Engineering.

Lamb has applied for tuition reimbursement under the Lab's Tuition Refund program. If she gets a grade of C or better, which she is pretty sure of doing, the Lab will pay 75% of her tuition. As she says, "I can't lose."

Swimming Pool

Schedule:

Monday through Friday
(employees only)
11:00 a.m. to 1:30 p.m.
(employees, family members, guests)
5:00 p.m. to 9:30 p.m.
Saturday and Sunday
(employees, family members, guests)
1:00 p.m. to 6:00 p.m.

Admissions:

Daily Tickets
$1.00 employee/family member
$1.50 guest
Season Tickets (valid to Apr. 30, 1980)
$20.00 individual membership
$30.00 family membership

One guest per employee is permitted. Advance arrangements for additional guests (but not more than five at any one time) may be made at the Recreation Office.

IBEW Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on Monday, January 28, 1980, at 8 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2:00 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.**

Women In Science Plan Supper Meeting

All women employees of BNL are invited to attend the Women In Science Association meeting on Tuesday, January 29, at 5 p.m., in Room 101, Chemistry lunch room. The featured speaker will be Assistant Director R.C. Anderson who will give a talk on Lab policies. A buffet supper, wine included, will be available at $4.00 per person.

Volleyball

Open League
Standings 1/16/80

TOGA	16- 2
Bumps	14- 4
Spikers	12- 6
Moles	12- 6
OTHG	6-12
Players Pool	2-16
Eddie &	1-17

Mixed League
Standings 1/21/80

A:	Family Affair	8- 1
	No Names	7- 2
	Nuts & Bolts	6- 3
	High Society	3- 6
	Thrints	3- 6
	DEEgenerates	0- 9
B:	Diamonds	8- 1
	Leftovers	8- 1
	Le Mufs	6- 3
	Nads	5- 4
	Underalls	0- 9
	Monday Night Live	0- 9

BERA Sales Office

In addition to the film processing service and the sale of a variety of photographic supplies, the BERA Sales Office has the following offerings. Kodak Special: (now through March 12) 3 for the price of 2 – 5x7, or larger, prints;

4 for the price of 3 – copy prints or duplicate slides.

Other sales items: assorted greeting cards and the new International Cooking Exchange cookbook.

Free for the asking: membership cards for Walt Disney's Magic Kingdom in Florida and Disneyland in California; cards offering BNL employees a 15% discount on items sold at Bowl Mart Pro Shop in Mineola.

Ticket Sales

Islanders Hockey ($12 each)

Sat.	Jan. 26	Hartford
Tue.	Jan. 29	Minnesota
Thu.	Feb. 7	Los Angeles
Sat.	Feb. 9	Quebec
Tue.	Feb. 12	Winnipeg
Thu.	Feb. 21	Minnesota
Tue.	Mar. 4	Edmonton
Tue.	Mar. 11	Colorado
Sat.	Mar. 15	St. Louis
Sat.	Mar. 22	Chicago

Metropolitan Opera ($7.50 each)

Wed.	Jan. 23	Rigoletto
Fri.	Jan. 25	Fidelio
Mon.	Feb. 11	Fidelio
Thu.	Feb. 28	Don Pasquale
Mon.	Mar. 10	Don Carlo
Thu.	Mar. 20	Don Carlo
Mon.	Apr. 7	Billy Budd
Wed.	Apr. 9	Manon Lescaut

The Sales Office is open from 9 a.m. to 1 p.m. Monday through Friday, and is located off the Berkner Hall Lobby. The telephone Ext. is 3347.

Radio Club

A meeting of the BNL Radio Club will be held on Wednesday, January 30 at 12 noon in Berkner Hall, Room A.

All members or interested nonmembers are invited. Topics to be discussed will be the new club library, possible Field Day plans, and proposals for new club activities.

Members are reminded that it is time to pay their annual $2.00 dues. For information call Alan Bieber, Ext. 2928, or George Walczyk, Ext. 4243.

Cafeteria Menu

Week Ending February 1, 1980

Monday, January 28		
Potato leek soup	(cup)	.35
	(bowl)	.45
Turkey à la king on rice		1.35
Vegetable quiche & fries		1.40
Hot Deli – Sloppy Joe	(on bread)	1.40
	(on roll)	1.50
Tuesday, January 29		
Split pea soup	(cup)	.35
	(bowl)	.45
Chinese pepper steak on rice		1.45
Poached fillet & 1 veg.		1.40
Hot Deli – Pastrami	(on bread)	1.40
	(on roll)	1.50
Wednesday, January 30		
Cream of cauliflower soup	(cup)	.45
	(bowl)	.55
Breaded flounder fillet w/fries		1.40
Stuffed pepper w/spaghetti		1.45
Hot Deli – Knockwurst	(on bread)	1.40
	(on roll)	1.50
Thursday, January 31		
Beef barley soup	(cup)	.35
	(bowl)	.45
Meat cakes w/buttered noodles		1.40
Pork butt steak w/mushroom sauce w/noodles		1.45
Hot Deli – Turkey breast	(on bread)	1.40
	(on roll)	1.50
Friday, February 1		
Fish chowder	(cup)	.45
	(bowl)	.55
Fillet of fish Parisian		1.40
Barbequed spare ribs & 1 veg.		1.45
Hot Deli – Meatball hero		1.35

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.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex, age or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific 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, as indicated below. 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.

POSITIONS OPEN: Scientific. 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 OR JUNIOR STAFF POSITION - Basic radiation damage studies on natural and synthetic rock salt and other minerals, particularly granite and basalt. Background and strong interest in defects in non-metals essential. Contact: Dr. N.P. Samios, Chairman, Physics Department.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees.

1228. AUTO-TRUCK MECHANIC - Staff Services Division.

1229. MESSENGER - Staff Services Division.

1230. MASTER METAL WORKER - Central Shops Division.

1231. TOOL & INSTRUMENT MAKER (two positions) - Central Shops Division.

1232. SUPERINTENDENT – SITE - Will be responsible for the operation and maintenance of all roads, grounds and land within the Laboratory site as well as to provide janitorial and rigging services for the Laboratory. Must have substantial experience in planning, directing and controlling the service functions of these units. Plant Engineering Division.

1233. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent experience performing diverse secretarial duties including technical typing. Will function as group secretary to inhalation toxicology research group. Responsibilities will include technical typing, filing, answering phones, screening mail. Medical Department.

1234. SENIOR STATIONARY ENGINEER - Requires demonstrated experience in the maintenance repair, and operation of high pressure boilers firing #6 fuel oil. Current stationary or marine engineer license is highly desirable. Plant Engineering Division.

1235. COMPUTER SCIENCE ANALYST - Requires BS or equivalent in computer science with experience in scientific programming. Working knowledge of CDC 6600 and 7600 is highly desirable. Will work in User Services Group; responsibilities include consulting with users on programming and operational problems, maintaining program libraries, and conducting user educational classes. Applied Mathematics Department.

1236. COMPUTER SCIENCE ANALYST - Requires BS/MS in mathematics or computer science with significant experience in scientific programming. Working knowledge of systems programming is essential. Will work as a systems programmer in computer services division. Applied Mathematics Department.

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

1237. DEVELOPMENT ENGINEER - BS in electrical engineering (power) or equivalent, and substantial experience in heavy power distribution 480 Volt and 13.8 kV systems with emphasis on load management, short circuit and relay coordination studies. Experience with application of unit substations, high voltage substations, metal-clad switchgear and underground cable distribution is essential. Accelerator Department/ISABELLE PROJECT.

1238. MECHANICAL TECHNICIAN - Requires a knowledge of the proper use of hand tools and the ability to assemble components carefully. Will assist in the preparation of magnets for testing. Accelerator Department/ISABELLE PROJECT.

1239. OFFICE SERVICES ASSISTANT - Requires general office experience to supply Administrative Division with services such as typing, filing, recordkeeping. Experience with word processors, familiarity with technical vocabulary and good telephone communication skills are desirable. Accelerator Department/ ISABELLE PROJECT.

Autos & Auto Supplies

70 FORD MAVERICK - 2 dr, 6 cyl, a/t, p/s, snows, extra wheels. $200. Ext. 4671, 924-6073.

65 BUICK LE SABRE - very good cond throughout, orig owner. Best offer over $400. Sue, Ext. 3675, after 6, 473-6570.

70 BUICK WAGON - loaded, $500; 77 Lincoln Mark V Cartier, loaded, 15,000 mi, $7500. 924-8534.

72 FORD GRAN TORINO STA WGN - 48,000 mi, good cond. $975. Ext. 4752, 669-0549.

75 AUDI 100 LS - front w/d, fuel injection, 30+ mpg reg, good cond. $2800. 924-7610.

77 CHEVY PICKUP - Silverado ¾ 4x4, camper sp, a/t, all pwr, windows & locks, cruise, tilt wheel, dual exhaust, 10-16.5 all terrain, 22,000 mi, many extras excel cond. 878-0516.

68 MUSTANG - a/t, p/s, new paint job, good cond, extra parts. $800. 924-7886 after 6.

(4) WIRE HUB CAPS - Olds Cutlass. $40. Glenn, Ext. 2012.

76 HONDA CB400F - 4 cyl, new tires, chain, handle bars, sm dent in gas tank. 473-2895 eves.

74 MUSTANG - V6, a/c, p/s, AM/FM tape, 55,000 mi, excel cond. $1500. 698-2235.

70 FORD - 351 eng, a/c, runs great, needs exhaust pipe, 4 dr, excel rubber. $575. Hugh, 281-3988.

78 FORD VAN - customized, captain chairs, chateau pkg, AM/FM tape, radials. Asking $5600. John, Ext. 2485.

(4) STEEL RIMS - 15x8 Ford, (3) L78-15 tires (good for spares). $60. 475-1494.

72 CHEVY KINGSWOOD STA WGN - perf cond. $1250. J. Soler, 234-7225.

69 CHEVY IMPALA - V8, ps/pb, running. $200 or best offer. W.A. Love, Ext. 3996.

78 TOYOTA CELICA GT LIFT BACK - like new, a/c, C/B, vent shade, dk brown, 5 spd, 27,000 mi, must sell. $5500. 758-9687.

69 DODGE DART - 6 cyl, good cond, new front brakes. $500. 878-2545 after 6.

65 BUG - running cond, new brakes, $300; 64 Bug, good parts car, newly rebuilt eng, $100. 331-2298.

78 CHEVY NOVA - 6 cyl, a/t, a/c, ps/pb, mint cond, 22,000 mi. $4500 firm. George, Ext. 2982, JU8-1713.

74 PLYMOUTH FURY - excel cond, ps/pb, a/c, snows. Asking $1000. 981-6780.

MOTORCYCLE HELMET - Capt America style, size sm. Asking $5. Ernie, Ext. 3357, Tim, 281-7873.

74 TRIUMPH SPITFIRE - new paint & top, must sell. $2000. Jim, 929-6841.

(2) SNOW TIRES - new + (1) tire (used), 1 snow on rim C73/13. $40. Ext. 2384.

78 CHEVY CAPRICE LANDAU - fully equipped, w/all access. $4500. John, 758-9238.

LINCOLN MARK IV - excel cond, all options, silver/ red int. Sacrifice, $4,400. 981-1327, 549-8811.

TIRES - new, used, rims, repairs, Gillette, BF Goodrich, mag wheel service. F. Usack, Ext. 4798 lunchtime.

15" FORD RIMS - (3). $5 ea. Ext. 2616.

68 VOLVO 122 - quasi-running cond: drive train solid, underbody shot. $100. Swyler, Ext. 3803/3869.

BUICK RIMS - (2) 15". $3 ea. M. Tesla, Ext. 3284.

69 CHEVY STA WGN - 6 cyl, good mech cond, rusted floors, 90K mi. $300, guaranteed. Ext. 4770, 628-8208.

72 OLDS DELTA 88 - a/c, ps/pb, snows, runs well. Asking $400. Vinod, 732-5496.

VW PARTS - doors, fenders, deck lids, glass, lights, many more. Augie, Ext. 4220.

75 CHEVY C-10 PICK-UP - 6 cyl, 3 spd shift, 8 ft bed with cap, all weather steel belted w/w radials, full wheel covers (chrome), AM radio, mint condition. $2,995. R. Skelton, Ext. 7520 or 473-4558.

SUBARU TIRES - mounted on wheels, 2 snows and 1 belted. Good for over 20,000 mi. Subaru shop repair manuals, set of 3. Originally 15, now $15. After 6, 281-5532.

67 CAMARO CONV - 6 cyl, 3 spd, restored, good mpg, must see. Asking $2750. 878-1210 after 6.

SNOW PLOW - 7' Western, reversible blade, hydraulic elec pump. $350 firm. 265-1072.

73 DODGE POLARA - V8, 4 dr, ps/pb, AM, reg gas, new batt-brakes-exhaust, radials & snow rad, clean, very good cond. Ext. 3634.

72 PONTIAC STA WGN - ps/pb, a/c, many new parts, very clean. $1000. Steve, Ext. 4297.

TIRES - (2) H78x15 steel belted w/w, used 1 season, $25 ea; (1) 185x14 SR radial, used 1 season, $20; new 855x14 General Jet w/w on Pontiac rim, $30. Ext. 2972.

73 FORD LTD - white, 2 door, AM/FM, excel running cond, fair body. Asking $900. 727-1973 after 6.

58 CORVETTE - some custom work; can easily be restored to orig. Must see. Asking $4500. 281-0804 eves.

Boats & Marine Supplies

14' HOBIECAT - compl w/sails & trailer, excel cond. $1050. 581-7656.

10' SEVYLOR RUBBER BOAT - oars, motor mt, pump, anchor, excel cond. Jim, 289-7470.

20' O'DAY SAILBOAT - must sell, prime cond, fully equipped. 289-0925 eves.

Miscellaneous

STEREO CASSETTE DECK - good cond, easy hook up, dolby noise reduction. 744-2947 after 5.

ANTENNAS - hi/lo scanner w/cable, $12; car CB/ FM/AM combo, $12; CB car floor mount, $7. 286-0795.

FRANKLIN FIREPLACE - like new, must sell. Asking $100. Frank, 924-7488.

BOY'S FIGURE SKATES - size 4 & 6, $5 ea; girl's figure, size 5, $3-1. Watson, 286-3679.

DIN TABLE - 6 chairs, buffet, light oak. $200. 473-7739 after 6.

GOLDEN RETRIEVER PUPS - sire field champion, dam show champion w/field, obedience wins. Ext. 3406, 929-4416.

CAMERA - Polaroid Square Shooter 2 Land camera. $15. 727-5912.

COLUMBIA 8-TRK TAPES - new (still sealed), $3 ea; meat slicer, $7; 3 ch 3 w walkie talkie, $25. Carol, Ext. 3297, 821-9547.

GIRL'S SLACKS - 1 navy, 1 cranberry, never worn. $5 ea. Ext. 4581.

BIC 980 TURNTABLE - cover, base, manual/auto, strobe & spd control. $100. Dennis, Ext. 3050, 654-2076.

T-SHIRTS - silk-screened w/chemical formulas, all sizes, colors. Bob, Ext. 2965, 399-0766 after 5.

2 DRESSERS - 52x15x33 hi, red, $25 ea; radio-phono cabinet 57x18x37 hi, blk & red (need refinishing), $50. Fran, 3379, 589-3485.

25" COLOR TV - Sylvania console, needs work. $50. John, Ext. 2461.

BEDFRAME - dbl bed, $10; baby bouncer, $6; bowling balls, $4 & $6. Susan, Ext. 4268.

SKIS - K-2, Kielly - 150 cm long w/Tyrolia 120 bindings, excel cond. Bob, Ext. 4637, 692-8659.

BABY'S WHITE CRIB - $15. Ext. 3691.

TWIN BED - clean box spring & matt on metal frame w/casters, $20; polytile ½"x24"x48" (8), $5. Jim, Ext. 4691, 744-3792.

MAYTAG GAS DRYER - excel operating cond. $75. 732-3073 after 5:30.

KEROSENE LANTERN - & extra red globe, $10; Summit magazine, July 63-June 72; regulator clocks, Japanese 1910-1945 era, need some work, "as is," $50-$75. 736-2534 eves.

FIGURE ICE SKATES - white boot size 5, blk size 3, excel cond. $5 ea. Carmen, Ext. 4135, 265-3982 after 6.

SKI BOOTS - lace, size 11½, 9; 2 wrought iron candle holders, wall mount, $20. 286-8256 after 4.

REFRIGERATOR/FREEZER - frost free, 19 ft. G.E.; 19" console TV. $50 each. 289-1755.

MOVIE CAMERA - Argus auto reflex 8:1 zoom w/ flood & film editor. $50. Tom, Ext. 4612.

LADIES' RING - beautiful simulated diamond, 1½ karats, yellow gold w/white gold prongs. Paid $89, selling for $35. Linda, Ext. 3199.

MAPLE COLONIAL FIXTURE - 5-light, excel cond. $25. Bob, Ext. 4672, 929-4753 after 5.

SUIT - dk brown corduroy, jacket & pants, size 5, brand new, $40; elec cord organ by Estey, 72 balanced bass cords, foot base cords, many features, bench, bks, excel cond, $350. 475-8658.

MIRROR, SCOOTER - $2; wig holder, 50¢; tour-a-bed, $9; 10 gal tank, $9. Sue, Ext. 4207.

ICE SKATES - lady's figure skates, size 5N, $10; Corning cups, open handle, winter white, 4/$5. P. Oster, Ext. 4763.

AIRTIGHT FIREPLACE INSERT - Timberline, less than 2 mos old. Cost $749, sell $549. 589-7386.

2 BUNK BEDS - counter top, formica rm arrangement, custom made. $500. 286-8256 after 4.

BLENDER - $10. Ext. 2372.

BOCK HOT- WATER HEATER - 30 gal oil-fired, excel cond, converting to gas. $225. Ed, Ext. 4188, 363-5170 after 6.

SKIS - Head 190cm, boots size 7½, poles. Best offer. Carol, Ext. 4398.

VIOLIN - ½ size, bow, case, excel cond, German make. Asking $250. Julie, Ext. 2942, 929-6460.

GLASS FIREPLACE DOORS - super deluxe mesh screen, adjustable, 6 mos. $350 value, sell $200. 588-7989.

DESK - 3 drawer, 43", 2-tone fruitwood contemporary, $75; rocking chair, colonial maple, $75; ladderback chair, rush seat, ebony, $40. Jack, Ext. 7942, 864-2236.

SOFA BED - queen size, very comfortable. $85. Ext. 7503, 924-5507.

CAMERAS - Ricoh rangefinder, good beginning camera, $35; Polaroid SX-70, mod II, never used, $49. Ext. 3723/3028.

CB - 40 channel Midland (no mike), antenna, coax. $50 or best offer. Judy, Ext. 2064.

MORE MUSIC BKS - brand new, asstd, 50% off printed price. R. Hildenbrand, Ext. 3273.

HARDWOOD PALLETS FOR FIREWOOD - you haul, 50¢ ea; sissy bar for most motorcycles, new cond, $30. 286-3377 after 6.

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

SHOREHAM - prime loc N. of 25A, 4 bedrm ranch, DR/LR w/fp, country kit, den, ent hall, 2 baths, lg deck, 5 appl, 2-car gar ½ acre, beach rts, must sell. Low 60's. Ext. 3462, 744-8449.

MT. SINAI - 3 bedrm ranch, cathedral ceiling L/R w/ fp, w/w, 5 appl, 2 baths, gar. $43,000. Bill, Ext. 3369, 929-6442.

PORT JEFFERSON VILLAGE - 3-4 bedrm ranch, possible mother/daughter, treed ½+ acre, dead end street. $77,000. Ext. 4504, 473-1523, 928-0483.

MASTIC ACRES - 6 rms, full bsmt, baseboard heat, usable attic, ¼ acre. 281-5498.

MT. SINAI - beautiful 4 bedrm splanch colonial, 1-½ baths, spacious D/R, den, L/R, 2-car gar, bsmt, circular drive, corner plot, in-ground pool, fully landscaped, many custom features, must see. Asking $57,000. Ext. 3084, 928-0911.

MASTIC BEACH - 3 bedrm ranch, corner lot, roofed patio, pleasant location near water. Low 30's. 281-7531.

SHOREHAM - 4 bedrm colonial, L/R, D/R, eik, 2-½ baths, full bsmt, gar, 1 acre fenced. $55,900. Ext. 3040, 744-2821.

BELLPORT VILLAGE - 3 bedrms, lg eik, att gar, all appl, stockade fenced rear yard, 5 yrs old. $37,000. Ext. 4417, 286-0795.

BELLPORT VILLAGE - sale/rent, 3 bedrm ranch, ⅓ acre, s/s, landscaping, fruit trees. Sale $50,500; rent $420. Ext. 4156, 286-1513.

BELLPORT - 5 bedrms, in-ground pool, fam rm w/fp, L/R, D/R, eik, 2-car gar, full bsmt, corner lot, ⅓ acre treed lot. $59,900. Ext. 4779, 286-3672.

BELLPORT - south, prime loc, old-fashioned charm, 9-rm 2-story colonial, oak & tile fp, lg D/R, duplex den, 4-5 bedrms, 3 baths, 2-car gar, gas heat, .6 acre. $55,000. Anne, Ext. 3404, 286-3764.

For Rent

MASTIC BEACH - waterview, 3 bedrms, w/w, 100'x 100', fenced yard. $275/mo. Frank, Ext. 4163, 924-7488.

WADING RIVER - sm cozy 2 bedrm cape cod, fp, cathedral ceiling, loft, prvt beach rights, across from sound. $350/mo. Ext. 4444.

RIDGE - ½ house, 3 bedrms, L/R, D/R, lg kit, all new appl, 2 baths, w/w, prvt ent, 5 min from Lab, must see. $450/mo util incl. Ext. 4781, 924-0820.

MILLER PLACE - 4 bedrm beautiful prvt home, full bsmt, 2-car gar, ¾ acre, 11 mi from Lab, avail Feb-Aug. $450/mo + util. Ext. 2968, 331-3116.

MANORVILLE - apt for rent, 1 bedrm chalet. $325/ mo. Joyce, Ext. 4215.

Wanted

ROLL AWAY COT - w/foam matt, good cond, reasonable. Lewis, Ext. 4089.

SQUAT RACK - Betty, Ext. 2937.

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

POOL TABLE - preferably 8' slate bed, good cond, reasonable. 589-5490.

LAWNMOWER - rotary 20" cut, in good cond, Briggs & Stratton motor preferred. 286-8724.

BOAT TRAILER - tandem for 22' outboard, Holsclaw or E-Z preferred. Ext. 4907, 345-3107.

HAM UNIT - GMC rear differential, 60's-70's, K20 or 30 series, 41:10 (4.10) ratio, any leads appreciated. Al, 653-4632.

CAP - for 6' Dodge pickup Fleetside. Bob, 744-3289.

BABYSITTER - for 1 yr old, someone who is looking to supplement income, can't pay much. 732-3073.

TRAINS - Marx, American Flyer, Lionel, Ives, especially keywind or steam. Al, Ext. 7772, 751-8462 after 6.

SKIERS & NON-SKIERS - to ski Bromont, Orford or Ste Anne in Quebec, Canada, Feb 15-18. For info call R. Wright, Ext. 3418.

SKI BOOTS - women's 6-½-7, boy's 4-½-5; ski bindings & poles. Reasonable, for once a year skier. Sue, Ext. 7669, 744-7679.

WANTED ROOMMATE - to share house, Brookhaven, $175/mo., includes everything, call Dominick. 286-9240.

Car Pools

SYOSSET/HUNTINGTON - interested in car pool 8:30-5, 5/days/wk. Mark, Ext. 3258.

REGO PARK, QUEENS - want to car pool. 897-2803.

SO. STATE PKWY - vicinity Ext. 32 (Massapequa, Seaford, Amityville, Farmingdale, Levittown, etc). Plotkin, Ext. 4717.

BAYPORT-BLUE POINT - would like to join or begin new car pool, drivers only. Ken, Ext. 3574, 472-3329.

SHOREHAM - N of 25A, 8:30-5 daily. Ext. 2372.

UNIONDALE - form or join 8:30-5. Vic, Ext. 3399.

Lost & Found

LOST - at Shirley Bowl, pair of tinted bifocals & silver "Cross" pen. Betty, Ext. 3605.

LOST - at AMD Christmas Party, black coat, wooden buttons, received wrong coat, I have yours. Debbie, Ext. 4173.

LOST - bunch of keys with yellow tag, Gym area. Ext. 7985, 924-7756.

Services

FIREWOOD - upstate hardwood, split & delivered. $130/full cord. 744-5387.

WANT GOOD FOOD? - sm estab co-op in Patch-Shirley area looking for members. 286-0189.

HOUSECLEANING - vacuuming, dusting, bathrm & kit cleaned, cheerful, reliable & thorough. $25-35/ visit. 929-3499.

LEARN ENGLISH - from certified ESL instructor, or Spanish or German for traveling, my home. 698-3347.

TAXES - prepared by tax consultant, your home or mine. Reasonable. John, 732-2472.

BABYSITTING - in my home, E. patchogue area (toddler). Ext. 3082.

Ads left out of this issue due to lack of space need not be re-submitted to appear in next week's issue. Please note that ads may not be more than 15 words long and must be received in the Bulletin office by 4:30 p.m. Friday, for inclusion in the following week's Bulletin.

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