BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

U.S. Wastes Billions on Faulty Ducts, Nationwide Study Finds

DAS Conducts Tests at Brookhaven House

If you have a duct system for heating or air-conditioning your home, chances are it is only about 65 percent efficient, so you are needlessly losing hundreds of dollars annually in higher energy bills.

That is one conclusion drawn from a recent nationwide survey of duct efficiency conducted by BNL and Lawrence Berkeley Laboratory (LBL). On a nationwide level, the researchers found, $10-$15 billion in energy costs is wasted every year due to faulty ducts in residential and small commercial buildings.

Data for the BNL-LBL survey were gathered from numerous U.S. Department of Energy (DOE)-sponsored residential surveys, and gas market and other research studies, the National Association for Home Builders and computer models.

Ducts are networks of round or rectangular metal, fiberglass board, or plastic-and-wire tubes used to distribute heated or cooled air around a building. Homes with hot-air heat distribution or air-conditioning have duct networks located within walls, floors and ceilings.

Said John Andrews, Department of Applied Science (DAS), who is BNL's principal investigator conducting the survey, "If your duct efficiency is less than 85 percent, it probably represents needless energy waste. New homes can be designed to eliminate duct inefficiencies altogether. And duct work in existing housing can often be improved for a minimal investment, to decrease energy costs."

Ducts lose energy by conduction of heat through the duct walls and by air leakage through holes in the ducts or poorly connected duct sections. Even if the ducts themselves don't leak, the system may generate pressure imbalances that pull cold air into the house and force heated air out.

Also, faulty ducts can cause safety problems. If pressure is too low in a basement, furnace flue gases — which sometimes contain carbon monoxide — and radon gas from the ground can be sucked into the building.

Roger Stoutenburgh

Department of Applied Science researchers (clockwise, from foreground) John Andrews, Richard Krajewski and John Strasser monitor the electric co-heating system set up in the Brookhaven House to test duct efficiency.

Andrews wrote a brochure for DOE, called "Improving the Efficiency of Your Duct System," which offers solutions to these duct efficiency and safety problems. For a free copy, call DOE toll-free at 1-(800) 523-2929.

Brookhaven House as a Model

As part of the nationwide study, Andrews, with Richard Krajewski and John Strasser, both of DAS, tested the duct efficiency of the Brookhaven House. Located on the corner of Upton Road and Mitchell Lane, the house was built on site in 1980 as a demonstration project for builders and architects. The energy-efficient house is 2,000 square-feet, and, at the time it was built, could be heated for about one-third the energy costs of typical modern homes.

The Brookhaven House was originally constructed with ducts in the basement, which carried heat from a heat pump up to the first floor. Grilles in the first-floor ceiling were expected to let enough heat into the second floor to keep it warm. At the same time, passive solar design features were used to reduce the heating load. As built, the house was not air-conditioned.

The Brookhaven House project ended in 1984, and the house was transferred from DAS to the Staff Services Division, to become part of the Lab's housing facilities. At that time a decision was made to install additional duct work in the attic with electric heat and air-conditioning. This provided better temperature control

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Bromley Faces Science's Future

BNL Video, Alex Reben

D. Allan Bromley

Last week, D. Allan Bromley, who served as the cabinet-level Science Advisor to former President George Bush from 1989-93, delivered a series of three Pegram Lectures on the subject of "Science and Technology: Advice and Policy." Below are excerpts from his final talk, on June 1, entitled "The Future of American Science and Technology." All three lectures are available on videotape for loan at the Research Library, Bldg. 477.

". . . Three sets of institutions — the universities, the federal laboratories and the industrial laboratories — really determine what goes on in research and development in the United States. And there is one common factor that all three sets of institutions share: They're all in serious trouble. . .

". . . There has been a tremendous amount of discussion, both in the administration and in the Congress, about the appropriate role of the federal laboratories [run by the U.S. Department of Energy and other federal agencies]. And I have to say that a very large fraction of that discussion has been ill-informed and extremely damaging. One of the very important things for this laboratory to recognize, I believe . . . is that you cannot wait for Washington to decide what Washington thinks you should do. It's vitally important that you decide . . . what you think you can best do and then do it, do it in the national interest. If you don't, then someone in Washington, probably a lawyer, will decide what you should do and you're not going to like it nearly as well as if you decide yourself.

". . . I must say that, having spent some 15 miles of tracking around various facilities here at the Lab in the last two days, I have been tremendously impressed by the unique facilities you have in the National [Synchrotron] Light Source, RHIC, the AGS, the Reactor, the biology program. And I must admit that I think you probably are better equipped to move into the 21st century in a constructive, productive way than any of the other federal laboratories with which I'm familiar . . .

"Your activities here and your facilities have the possibility, and I believe the high probability, of moving the areas to which they are related in major quantum leaps forward . . . and I think you have another very important attribute: More than any other laboratory, you have learned over the years how to be extremely attractive, congenial, receptive to users. And this is an area of which you can be extremely proud. . . .

". . . I'm afraid that, despite our best

(continued on page 2)

U.S., Russian Labs Unite for Nuclear Safeguards

Roger Stoutenburgh

Just five years ago, this gathering of experts on nuclear materials safeguards could never have happened — because many of them are from former Soviet, now Russian, research and weapons laboratories, and the rest are from U.S. Department of Energy (DOE) national labs. But, with changing times come changing needs, as Russian nuclear facilities work to prevent illegal diversion of weapons-grade nuclear materials, such as plutonium and highly enriched uranium, by implementing improved material protection, control and accounting methods.

So, April 24-28, BNL welcomed 17 Russian and 16 American visitors for the first Laboratory-to-Laboratory Workshop on Materials Protection, Control and Accounting (MPC&A), sponsored by DOE. Hosted by safeguards experts in the Safeguards, Security & Nonproliferation Division (SSND) of BNL's Department of Advanced Technology (DAT), the visitors exchanged information on safeguarding nuclear materials and participated in measuring exercises. Then, the Russian visitors departed for Idaho, for a demonstration of MPC&A methods at the Zero Power Physics Reactor at Argonne National Laboratory-West.

Among the workshop's key participants were: (front row, third from left) workshop chairman Walt Kato, DAT; (second to Kato's left) workshop organizer Alan Bieber, DAT; (front row, center) V.F. Kositsyn, Institute of Inorganic Martials; (to Kositsyn's left) Kate Baur, DOE; (second to Baur's left) Joseph Indusi, DAT; (middle row, third from left) I.P. Matveenko, Institute of Physics and Power Engineering; (fourth to Matveenko's left) S.F. Razinkov, Institute of Experimental Physics; (back row, left) workshop organizer Les Fishbone, DAT; (third to Fishbone's left) A.M. Karpov, Institute of Technical Physics; (second to Karpov's left) A.N. Roumiantsev, Kurchatov Institute; and (back row, fourth from right) Ruth Kempf, who heads SSND. Also participating in the workshop were representatives of several other DOE national laboratories: Argonne, Lawrence Livermore, Los Alamos, Oak Ridge and Pacific Northwest.

Lab Policy on Alcohol and Substance Abuse Revised

Using illegal drugs or abusing controlled substances has always been prohibited on the Lab site or while performing Lab business. In some jobs, however, such use or abuse could have particularly severe consequences — jeopardizing people's safety or affecting the integrity of research programs.

These jobs are among 13 "testing- designated positions" listed in BNL's Alcohol and Substance Abuse Policy. Last month, BNL Director Nicholas Samios announced that this list has been increased to comply with federal regulation 10 CFR.707. But, as Samios also emphasized, the revised policy "continues to have the objectives of providing a safe workplace for all employees and assisting those employees suffering dependence problems."

Next week, employees in the testing-designated positions will receive a letter informing them that they will be subject to random substance-abuse screening. This screening, which will include such substances as marijuana, cocaine, opiates and barbiturates in the urine, will not begin until 60 days after the date of the letter, said Bill Hempfling, Manager of Labor Relations, Personnel Division, "to give employees the opportunity for rehabilitation, if necessary."

Any employee who needs help in dealing with substance abuse is encouraged to use the Lab's Employee Assistance Program (EAP), Ext. 4567; all voluntary contact with EAP is confidential.

Substance-abuse screening will be administered by the Occupational Medicine Clinic. Before any action is taken, positive results will be reconfirmed by one of the Lab's medical review officers.

The new regulation requires that 50 percent of the employees in the screening pool be tested annually. But, since these are random tests, it is possible that an individual could be screened more than once until the 50 percent quota is attained.

Another revision to the Alcohol and Substance Abuse Policy regards the use of alcohol on site: The consumption or unauthorized possession of alcoholic beverages is now prohibited in all areas of the site except for the Brookhaven Center Club and the housing areas. The only exception is that alcohol may be served at after-hours functions if specifically approved in advance by a member of the Lab Directorate.

This means that consumption of alcohol is prohibited during BERA-sponsored sporting events, such as league softball games; however, participants may request permission to serve alcohol after games. Employees who consume alcohol at after-hours events should not return to the work area following the function or drive if in an impaired condition. Finally, celebrations held off site during lunch or other working hours are strongly discouraged for reasons of safety and loss of productivity.

All those present on site — employees, contractors, guests, collaborators and students — are urged to become familiar with the full Alcohol and Substance Abuse Policy. For a copy, contact the Personnel Division, Ext. 4262, or, if you have questions about the policy, contact Hempfling, Ext. 2878.

BNL Blockbuster: Blood Story

Prepare for a big surprise at the box office this weekend. Instead of the traditional summer smorgasbord of blood, guts, gore, and violence, you will find a mostly clean platter of cute, happy movies: There's no *Rambo* and no *Terminator*, but there's lots of *Pocahontas*, *Casper* and *The Bridges of Madison County*.

As a matter of fact, the only place you *can* go this summer to get your blood fix is the Brookhaven Center, for the Lab's annual summer blood drive, to be held Wednesday through Friday, June 21-23, from 10 a.m. to 3 p.m.

According to Blood Drive Chair Susan Foster, the primary source of blood donations for area hospitals is employee donations at Long Island companies, such as BNL, as well as high schools, universities, and church and civic groups.

Unfortunately, says Foster, cutbacks in the local aerospace industry have significantly diminished the number of people on Long Island giving blood at work, reducing annual blood donations by as much as 5,000 pints. BNL employees currently give blood at a rate of approximately 1,000 pints per year, Foster said.

During the summer, the blood supply is even more limited since students are out of school, and many Long Islanders are away on vacation. Also, European blood, which constitutes at least 30 percent of the Long Island supply, is not available during the summer months.

The combination of these factors means that blood donated at the summer blood drive is essential to safeguarding the Long Island blood supply. "It's critical that we donate blood on a regular basis to ensure that an adequate supply is available at all times," said Foster.

Foster says that individuals who choose not to give blood, but at the same time say they would readily give blood if a relative were in need, have been misinformed. Realistically, she says, it takes at least 24 hours to process blood for a transfusion.

Foster comments that many more Brookhaven employees could give blood than the 17 percent that currently do. Research has shown that up to 80 percent of Americans are medically able to donate blood.

Donating blood is easy, says Foster, and all employees, family, and friends — including summer students and visitors — are encouraged to participate in the upcoming blood drive. Simply fill out the pledge card you received in the mail (or obtain one from your group's Blood Captain — see last week's Brookhaven Bulletin), and return it to Foster, Bldg. 185.

Donors will be notified approximately one week prior to the blood drive of the time and day of their appointment. Walk-in donors are accepted; however, scheduled donations are preferred because they can be handled more expeditiously.

Those who complete their pledge cards and return them by 5 p.m. today will be entered in a drawing for five $50 dinner certificates.

For more information, contact Susan Foster, Ext. 2888.— Brad Keoun

(Keoun is a summer student in the Public Affairs Office.)

Outreach Workshop

Men, Women and Stress

Barbara Brown

In reaction to stress, why do women tend to cry and become depressed, while men are more inclined to become angry and uncommunicative?

This question and related ones will be answered in the next Outreach workshop, on Tuesday, June 13, from noon to 1 p.m. in Berkner Hall. Sponsored by the Employee Assistance Program (EAP) of the Occupational Medicine Clinic, "Gender Differences and Stress" will be discussed by clinical psychologist Barbara Brown.

In her talk, Brown will describe how, statistically, women and men react differently to stress and how these gender differences result in different stress-related psychological problems, including depression, anxiety, post-traumatic stress disorder, etc. The speaker will look at how socioeconomic and physical factors affect the sexes differently and how these, in turn, influence their communication, social action and support systems.

Barbara Brown earned her Ph.D. in school and community psychology from Hofstra University. In addition to her private practice in New Hyde Park, she is an adjunct associate professor at Hofstra, where she teaches women's psychology and community psychology; she is also on the board of directors of the Nassau County Chapter of the National Association of Women.

To register for this workshop, return the bottom portion of the Outreach flyer recently sent to all employees to Dianne Polowczyk, Bldg. 490, by Monday, June 12. For more information, call Ext. 4567.

Duct Testing (cont'd.)

throughout the house during the coldest and hottest months of the year.

To test duct efficiency in the Brookhaven House, the researchers set up an electric co-heating system, turned off the existing electric heat and heat pump, and covered the registers to inactivate the ducts. The newly-installed electric heaters were controlled by a computer to maintain a certain temperature over a fixed period of time. Then, during another period of the same length, the DAS researchers heated the house to the same temperature, using its own heating system and ducts. Making corrections for differences in outdoor temperatures, several measurements of the energy used by both the co-heating system and the duct system were taken and then compared.

"We found that more electricity was used to heat the house with the duct system than was needed by the electric co-heating system," Andrews said. "That was true even with the heat pump, although it must be admitted that the heat pump only serves the first floor. The duct system itself was 60 to 65 percent efficient, which is not far from the national average.

"Although this efficiency may seem low, it's important to realize that the ducts in the Brookhaven House were installed according to accepted practice," Andrews continued. "Even today, more attention is usually paid to the energy efficiency of the heating equipment and the structural elements of a building itself, such as windows and roofing, than to the distribution of heat through ducts."

The DAS team is looking for BNL employees with hot-air heating systems who would like to have their ducts tested for efficiency free. The test will normally require two nights and the intervening day. The data will be used as part of their study.

Anyone interested in participating may call Arlene Waltz, DAS, Ext. 5834. A research team member will explain the process in more detail, so that the homeowner can decide whether to proceed. Testing will take place this fall and winter. — Diane Greenberg

Bromley (cont'd.)

efforts, the deficit pressures that currently exist in Washington are going to mean that, in the years ahead, for the period of the remainder of this decade at least, budgets are certainly going to be cut. And what this means is that you are going to have to start planning now — just as we are in the universities and just as everyone is in industry — how you are going to function as a smaller organization that will preserve your most important people, your most important programs and your most unique features. . . .

". . . there are going to be absolutely dramatic and draconic changes in the approach of Congress and in the support of the administration for research and development in this country. And . . . [Congressman] George Brown from California estimates . . . that the way things are going now that federal support for research and development, under the jurisdiction of the [House] Science Committee, will decline about 24 percent from its current value at about $27.2 billion this year to $20.6 billion in the year 2000, and that doesn't account for inflation. . . . Brown's figures show that basic research . . . will increase, the only area in government that does . . . by about $6 million, from $3.3 billion now to a little more than that in 2000 . . .

". . . I believe that we really have a great future. It's clear to me . . . that if we didn't have great national laboratories like this one, we'd have to invent them. The important thing is that we have to get this message across to a much larger fraction of our public than now understands it. . . .

"The problem that we face is that we scientists and engineers constitute the lousiest constituency in our entire political environment. We have taken the point of view, for some reason, that politics is a somewhat dirty business, that we don't need to get involved in it, that sooner or later those folk in Washington will understand that what we are doing is so important that they'll support it without any effort on our part. Now, if that was ever true, it certainly isn't true now. And so what I'm suggesting is . . . that each of you take the responsibility to get to know your Congressmen, your Senators at a time when you're not in crisis. Because if you're only going to talk to them when there's a crisis on and when you desperately need something, you're not going to have any credibility at all. . . .

"Now it's clear that we have a number of very difficult years ahead, no question about it. . . . in the long term, however, I remain very much optimistic about our future. . . .

Picketers at Gate

Employees who use the main gate have noticed picketers at the entrance to the Lab. This activity is not aimed at BNL, but instead at an outside contractor who is working on site.

Fly to Kitty Hawk

The BERA Aviation Club is sponsoring a private airplane trip to Kitty Hawk, the village in northeast North Carolina from which the Wright brothers took off on their famous 1903 flight, and Tangier Island, Virginia.

The trip will leave Brookhaven Airport at 8 a.m. on Friday, June 16, for Kitty Hawk, which will be toured that day. The overnight will be spent on Tangier Island, which will be visited on Saturday, June 17, before the return to Brookhaven. Rain dates are Friday and Saturday, June 23 & 24.

The one-way flight is about 4.5 hours. The round-trip cost for the flight and overnight stay is $250 per person, if all seats are taken on the aircraft.

For more information or to make your reservation, contact Louis Addessi, Ext. 4672, or Vincent Castillo, Ext. 3772, as soon as possible.

Macintosh Meeting

The BNL Macintosh Users' Group usually meets on the first Thursday of each month at 10:30 a.m., but the June meeting has been rescheduled for Wednesday, June 14, at 9 a.m. in the CCD seminar room, Bldg. 515.

At the meeting, Claudine Conway, a sales representative from GTSI, along with technical support representatives from Apple, Kodak, Sun and Hewlett Packard, will discuss problems and present information on new systems. They will also hold equipment displays and demonstrations that day at Berkner Hall, from 10 a.m. to 2 p.m.

Dance Roundup

C/W Dance Tonight

This is the last call for tickets to the BNL Country/Western (C/W) Dance Club's dance tonight, from 7 p.m. to 11 p.m. in the North Room of the Brookhaven Center. The boot scootin' will begin with an hour-long C/W dance lesson by Joel Piereth and Elise Prado, followed by three hours of line and partner dances.

Tickets, at $10 per person, may be purchased during the day from: Carmen Falkenbach, Ext. 2663, Bldg. 460; Lois Marascia, Ext. 3315, Bldg. 460; or Ginny Morante, Ext. 3555, Bldg. 460. Or buy tickets at the door.

Be Social Saturday

Tomorrow beginning at 8 p.m., all are invited to rhumba, tango, fox trot, etc. the night away to CD and taped music, at the BNL Ballroom, Latin & Swing Dance Club's monthly informal Saturday social. The $1 per-person contribution made at the door will be put into the club's music fund. For more information, contact John Millener, social chairperson, Ext. 3853.

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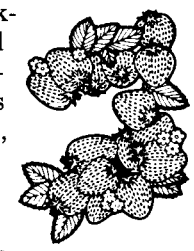
Strawberry Secret: Bigger's Not Better



Pick-your-own season begins this weekend at the local strawberry farms. But hold on to your baskets: When it comes to strawberries, bigger's not always better, says Long Island agriculture expert Bill Sanok, an agent of the Cornell Cooperative Extension in Riverhead.

Each cluster of berries consists of a primary berry, two secondary berries and several successive layers of berries. The primary berry, the largest of the berries in the cluster, ripens first. The other berries are smaller and may not ripen until the third or fourth week in June.

But, according to Sanok, strawberries that remain on the vine longer actually have a sweeter taste. That means the smaller berries in the cluster may provide discriminating tasters with a more flavorful bite.

Roseann Berezny, who operates a strawberry farm in Riverhead, agrees. "A good strawberry doesn't have to be big," she said. "At the end of the season [when they're smaller], they're sweeter than sugar."

The variety of strawberry most common in Long Island, *fragaria ananassa*, is a hybrid derived from two older species: *fragaria virginiana*, a native, wild strawberry; and *fragaria chiloensis*, a common Chilean variety. Interestingly, *virginiana*, though tiny, is incredibly sweet, whereas its larger cousin *chiloensis* is relatively bland.

Still, pickers jockey for the biggest berries. Several years ago, according to Sanok, a deliciously sweet variety of strawberry — the Sparkle — was introduced on Long Island but was unpopular because it was so small.

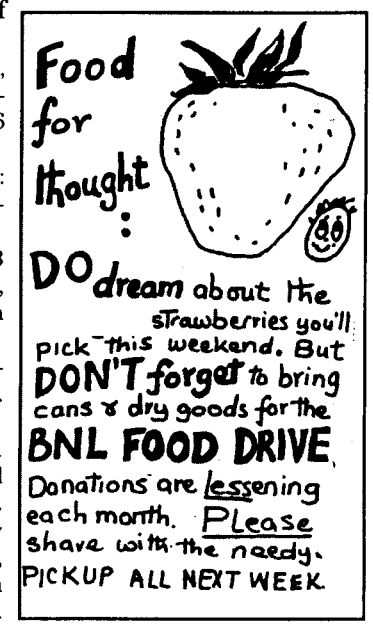
One sure thing all strawberry enthusiasts agree on are the virtues of brilliant, bright red berries. Sanok and Berezny both say prospective pickers should look for impressive color in a strawberry, and a glossy, healthy-looking finish.

So, when your picking partner turns to you and says, "Look, my berries are bigger," you can just smile and reply with plucky self-assurance, "Mine are redder."

For a listing of the names and hours of area pick-your-own farms, call the automated message system of the Cornell Cooperative Extension (369-2100 in East Suffolk, 854-1450 in West Suffolk) and press 0302.

Here's a brief sample of some of the local farms:

- **Anderson Farms**: Route 58, Riverhead, 727-2559 or 727-1129. Open weekdays 9 a.m. to 6 p.m., weekends 8 a.m. to 6 p.m.
- **Berezny's Farm Stand**: Sound Avenue, Riverhead, 722-3823. Open daily 9 a.m. to 5:30.
- **Ken Glover Farms**: 633 Horseblock Road, Brookhaven, 286-2226 or 286-7876. Open daily 8 a.m. to 6 p.m.
- **Lewin Farms**: Sound Avenue, Wading River, 929-4327. Open daily 8 a.m. to 5 p.m.
- **May's Farm**: Route 25A, 1 mi. north of William Floyd Pkwy., Wading River, 929-6654.
- **Rottkamp's Fox Hollow Farm**: 2287 Sound Avenue, Calverton, 727-1786. Open Thurs.-Tues. 9 a.m. to 4:30 p.m.



Tennis Fun

The Tennis Committee is sponsoring a tennis fun evening at the BNL tennis courts on Thursday, June 15, at 5:05 p.m.; the rain date is Thursday, June 22. This event is free and open to all Lab employees, retirees and Lab visitors, and their families. The Committee will assign tennis partners. Beginners, intermediate and advanced players are all welcome, as you do not have to be an expert tennis player to participate. When tennis play is finished, participants will meet at the Brookhaven Center, where refreshments may be purchased. Sign up by calling Joe Carbonaro, Ext. 5139, or Rita Kito, Ext. 3320.

Rifle & Pistol Club

The Rifle & Pistol Club meets on the second Wednesday of each month, so the next scheduled meeting is June 14, in Room 202, Bldg. 911B, at noon. Anyone interested in club activities may call Otto Jacobi, Ext. 3471.

Equipment Demos

On **Monday, June 12**, from 11 a.m. to 3 p.m. in Berkner Hall, **Components for Electronics, Inc.**, will present products by **Kepco**, a manufacturer of programmable linear and switch-mode power supplies.

Olympia microscope and video equipment will be showcased by New York Scientific on **Tuesday, June 13**, 10 a.m.-2 p.m., in Berkner Hall.

Representatives from **Apple Computer, Sun Microsystems, Kodak Corporation** and **Tektronix Corporation** will be in Berkner Hall from 10 a.m. to 2 p.m. on **Wednesday, June 14**, to exhibit and demonstrate state-of-the-art computer hardware and peripherals. Contact Ed Taylor, Ext. 7589, for more information.

On **Thursday, June 15**, in Berkner Hall, from **9 a.m. to 2 p.m., LeCroy** will demonstrate its latest instrumentation, including: model 3377 CAMAC 500 ps multi-hit TDC, model 1450 VISyN high-voltage system, model 9374 1 GHz bandwidth 2 GS/s digital oscilloscope, model 9362 digital oscilloscope and model LW420 arbitrary function generator.

Then, from **1 to 2 p.m.**, a seminar on "Digital Signal Processing Techniques for Particle Physics Experiments" will be presented by Holger Oelschlaeger of **Struck GmbH**, whose products will also be shown.

Microcomputer Club

The BERA Microcomputer Club will next meet on Thursday, June 15, at noon in the CCD seminar room, Bldg. 515, for a presentation by Phil Mandato, IBM, on OS/2 Warp Connect. Announced on May 17, this operating system provides the capability to run DOS, Windows and OS/2 applications simultaneously on a desktop. In addition, LAN-based TCP/IP functions are integrated into the package. All are welcome; bring your lunch. For more details, call Steven Stein, Ext. 5694.

Startup Postponed For New Traffic Light

Only part of the new traffic-control system described in last week's Bulletin will go into effect on June 14 as previously announced: The two new bypass roads — which allow traffic to flow southbound on Upton Road from Yale Road and from Princeton Avenue without going through the intersection — will be opened for the afternoon rush hour that day.

However, due to last-minute modifications, the startup of the new vehicle-actuated traffic signal at the intersection of Upton Road and Princeton Avenue has been postponed. Look for an announcement of the new startup date in a future Bulletin.

Service Awards

The following employees celebrated BNL service anniversaries in May:

30 Years

Robert A. Brown.....Medical
Conrad M. Dabrowski.....RHIC
Conrad F. Koehler Jr......Chemistry
Patricia E. Oster.....RHIC
Bruce A. Style.....Inform. Serv. Div.

25 Years

Joan D. Perullo.....Staff Serv.
Sylvester C. Suda.....Adv. Tech.
Laura A. Zaharatos.....Dir. Office.

20 Years

Michael A. Iarocci.....RHIC
Mary Anne Mc Grath.....Adv. Tech.
Ji Wu Yang.....Adv. Tech.

10 Years

Dana R. Beavis.....Physics
Linda J. Feierabend.....NSLS
Vicki E. Feldman.....Sfgrds. & Sec.
Roger A. Katz.....AGS
David J. Knoernschild.....AGS
Robert Litzke.....Dir. Office
Masanobu Shinozuka.....Adv. Tech.
Yong-Nian Tang.....NSLS

Camera Club Shoot

For its third live-model shoot, the BERA Camera Club will aim to create a commercial look to the photos taken. This shoot will take place in two parts: The first will feature a presentation on lighting techniques and set design, while the second will be the actual photography session with the model.

The shoot is open to club members and nonmembers, but all must attend the first session to take part in the second. For the dates and locations, contact Ripp Bowman, Ext. 4672.

Amateur Radio Club

To discuss the upcoming field day, the BERA Amateur Radio Club will next meet on Thursday, June 22, at noon in the lobby of Berkner Hall.

All Lab employees, guests and licensed amateur-radio operators are invited. For more information, contact Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

Arrivals & Departures

Arrivals

Anne P. Earl.....Fiscal
James D. Flanagan.....Comp. & Comm.
David A. Loughlin.....RHIC
Robert-Irving Moore.....Medical
Kiley J. Reynolds.....Biology

Departures

None

Cafeteria Menu

Monday, June 12	
Soup: Roasted corn chowder	.90/1.20
A la Carte: Arroz con pollo	3.85
Lite: Baked manicotti & cheese straws	3.65
Deli: Corned beef & cabbage	3.20
Grill: Filet of fish	3.30
Tuesday, June 13	
Soup: Won ton	.90/1.20
A la Carte: Fried chicken	3.95
Lite: Lasagna w/focaccia	3.95
Deli: Turkey w/stuffing	3.20
Grill: Monte Cristo	3.30
Wednesday, June 14	
Soup: Sausage tortellini minestrone	.90/1.20
Display Cooking: Pasta	4.75
Deli: Loin of pork	3.20
Grill: Cordon Bleu burger	3.20
Thursday, June 15	
Soup: Summer squash	.90/1.20
A la Carte: Macaroni & cheese	2.95
Lite: Veal parmesan	3.65
Deli: BBQ brisket of beef	3.20
Grill: Turkey chili in a tortilla	3.30
Friday, June 16	
Soup: Seafood bisque	.90/1.20
A la Carte: Salisbury steak	3.85
Lite: Vegetable au gratin	3.65
Deli: Leg of lamb	3.20
Grill: Philly cheesesteak	3.30

Art Bus Trip

A few seats remain for the Art Society's Saturday, June 24, bus trip to Connecticut to the American Impressionists' boardinghouse-turned-museum in beautiful Old Lyme and the free modern sculpture garden in Ridgefield. Museum and bus cost is $25. Call Liz Seubert, Ext. 2346 or 286-8563, evenings, for information or reservations.

PSI Meeting

At the next monthly meeting of the Upton Chapter of Professional Secretaries International (PSI) on Thursday, June 15, at 5:30 p.m in Room C, Berkner Hall, psychologist Robert Carrere, Ph.D., who is a human-relations consultant, will conduct a workshop on creative problem solving. All are invited.

While the workshop is free, those who want to partake of sandwiches and other refreshments are asked to contribute $5 per PSI member or $8 for nonmembers. For more information, call Susan Carlsen, Ext. 7647.

Classified Advertisements

Placement Notices

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

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

Current job openings can also be accessed via the BNL Home Page on the World Wide Web. Outside users should open "http://www.bnl.gov/bnl.html", then select "Scientific Personnel Office " for scientific staff openings or "Employment Opportunities" or "BNL Personnel Office" for all other vacancies.

SCIENTIFIC RECRUITMENT - Doctorate usually required. Candidates may apply directly to the department representative named.

PHYSICIST - With several years' experience in nuclear or particle physics, to join a group currently doing heavy-ion experiments at the AGS and planning to participate in the BRAHMS experiment at RHIC in the future. Experience in relativistic heavy-ion physics is preferred. Contact: Chellis Chasman, Physics Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

MK 0760. ADMINISTRATIVE/SECRETARIAL POSITION - Will assist the Associate Director for Administration in the coordination and operation of the Administrative Office. Requires an AAS or equivalent, significant secretarial background and administrative experience and ability, excellent oral and written communication skills, and extensive knowledge of Laboratory policies, practices and procedures. A high degree of judgement, initiative, discretion and flexibility is also required, as is the ability to work independently and under quickly changing priorities. Expertise in WordPerfect, RBase, Excel, Harvard Graphics and Novell highly desirable. Responsibilities will include extensive interfacing with all levels of BNL and DOE managerial personnel and their staff, coordinating and distributing Laboratory policies, screening and scheduling incoming tasks and documents, supervising office support staff, prioritizing general office workload, and arranging meetings. Director's Office.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

LS 5565. COMPUTER ANALYST POSITION - Requires a BSCS or equivalent and several years' experience designing databases and applications using ORACLE development tools. Shell and C programming experience necessary. Motif toolkit, PERL, C++, and UNIX client-server system experience in a distributed-computing environment is preferred. Responsibilities include the design of medical research and clinical databases. Computing & Communications Division.

Motor Vehicles & Supplies

95 MUSTANG GT - black, fullly loaded, 5-spd., 5k mi., mint cond., asking $21,500. Pat, 878-9117.

93 SUNBIRD - passive alarm, ABS, p/l, am/fm w/tape deck, ac. a/t, 38k mi., $7,800 neg.; '90 Mustang, air bag, loaded, ext. warr., $5,800 neg. Harris, 758-7911.

92 GEO METRO - 17k mi., 45 mpg, 5-spd., am/fm, 3-yr. warr. Joe, Ext. 4496.

92 PROWLER TRAILER - 24', loaded, cac, mw, stereo, awning, sleeps 6, excel. cond., $9,250. Bill, Ext. 2762 or 665-3782.

91 CHEVY S10 TAHOE 4x4 TRUCK - ext. cab, V-6, a/t, cap, ac, jumpseats, ext. warr., gar., mint, $12,500. Jan. 212-288-2635 days or 587-2866 eves.

91 CHEVY ASTRO VAN - 7-pass., 60k mi., $7,500. 281-5827, leave message.

90 TOYOTA COROLLA - white, 4-dr., 5-spd., ac, p/s, p/b, excel. cond., $5,500 neg. Ext. 3376 or 821-1215.

89 NISSAN SENTRA - 75k mi., 4-dr., ac, radio, new tires, v.g. cond., $4,400. Robert, Ext. 3736 or 341-1032.

88 SUBARU XT6 - 5-spd., red/black, full power, loaded, $4,500; '81 Corvette, cream/beige, 4-spd, stored for 4 yrs., best offer over $10,500. Jean, 361-8119.

88 MITSUBISHI MONTERO 4x4 - ac, p/s, p/b, stereo, 5-spd., v.g. cond., in/out, $5,500. 473-6507.

88 OLDS FIRENZA - a/t, full power, cruise, ac, 4-dr., 90k mi., excel. cond., $2,500. Arnie, Ext. 2606.

86 HONDA CIVIC - h/b, red, 5-spd., sunroof, am/fm cass., 113k mi., good cond., $2,100. Kevin, Ext. 2963 or 744-0871.

85 COUGAR LS - 3.8L, V-6, full power, gray, good cond., $1,500. Frank, Ext. 4220 or Vita, 277-0464.

84 CADILLAC ELDORADO - clean, low mi., runs well, reasonable. 585-8590.

84 HARLEY FLHT - new top end, brakes, tires, much more, ask. $9,300; '80 Harley FXE Shovelhead stock, ask. $8,600. Dave, 878-1303, leave message.

84 PONTIAC FIREBIRD TRANS AM - black w/gray int., gold ext. trim, 8-cyl., 5-spd., 5.0 liter eng., $2,400. Rich, 744-4816.

83 CITATION - 4-dr., a/t, 4-cyl., 71k mi., runs well, good for station car/parts, $200 neg. Tirre, Ext. 3288.

93 TOYOTA PREVIA LE - silver, a/t, ac, c/c, air bag, p/pkg. cruise, privacy glass, anti-theft, cass., ABS, 45k mi., Ext. 3169.

93 MERCURY CAPRI - conv., black, 5-spd., 30k mi., fm cass., air bag, extras, $10,000; tires, Michelin, MXV3 195/60R15, good, $30/pr. neg. Jill, 924-6940.

91 MERCURY CAPRI XR2 - conv., red, turbo, loaded, 53k mi., 5 yr./60k warr., excel., $7,800. Ext. 5360 or 477-8117.

86 HYUNDAI EXCEL - red, 5-dr., radio, cass., must sell. W. Pirkl, Ext. 2868.

86 CHRYSLER LASER XT - h/b, a/t, turbo 4, 79k mi., red/black, T-top, ac, stereo cass., H.P. tires, needs some mech. work, $2,195 neg. Chris, 924-6940.

86 PONTIAC GRAND AM - 6-cyl., p/seat, all options, orig. owner, gar., 90k mi., v.g. cond., $3,200. Eva, Ext. 3701.

86 JEEP CHEROKEE PIONEER - V-6, a/t, high mi., 4wd, runs well. $2,750 neg. Jim, 727-3469.

85 TOYOTA CAMRY - 4-dr., 5-spd., ac, orig. owner, 130k mi., good cond., ask. $1,900. Ext. 4342 or 924-3066.

85 FORD RANGER 4x4 - cap, rebuilt trans., eng. done by A#1, 2.8L, new tires, runs well. Pete, Ext. 5105.

85 CORVETTE - a/t, full power, ac, red, 2 alarms, 29k mi., excel. cond., asking $13,500. Tom, Ext. 5899.

84 VOLKSWAGEN SCIROCCO - 93k mi. on '86 eng., 5-spd., alarm, 2 sets of wheels, D/F stereo, new rad. & tires, $1,900. Chris, 744-8910.

83 CAMARO - 4-spd., sunroof, rebuilt eng., new struts, clutch, windshield, rad., exhaust sys., radio, asking $1,750. 325-0563.

82 SUZUKI GS750L - new paint, battery & tires, $1,100. Glenn, 821-5165.

81 CAMARO - for parts, asking $150; mag. tires, parts, best offer. Ext. 4783.

79 CHEVY PICKUP - m/t, m/b, m/s, runs well, $650. Bob, Ext. 5314.

62 FALCON - 4-dr., 3-spd., m/t, extra eng., trans., rad., wheels, good glass, bumpers, many parts, $450. Mike, 737-1458.

HONDA ACCORD - 4-dr., hit in rear, serviced clutch, new brakes, runs well, $335. Chris, 399-7493.

CAR RAMPS - heavy-duty, excel. cond., $19 pr. Lisa, 467-8185.

RV AIR CONDITIONER - Colman, rooftop, 13,500 Btu, 125V, excel. cond. Ron, Ext. 2214.

SHOP MANUAL - Isuzu, 1986, cost $40, sell $15. John, Ext. 3292 or 286-1348.

Boats & Marine Supplies

28½' IRWIN MKII SLOOP - 1976, Yanmar diesel, 50 hrs., new main halyard, all jib sheets, all new lifelines, hardware. 281-1110.

25' SEARAY - 1984, only 290 hrs., $11,000. Mike, Ext. 2115 or 665-4495.

25' CHRIS CRAFT - 1973, fg, new eng., VHF, sleeps 4, full head, stereo, many extras, $6,000 neg. Chuck, Ext. 2351 or 821-1525.

23' CHAPPARAL - 1984, UHF, radar, o/riggers, DF, L/well, f/canvas, d/btrys, bunks, extras, mint, reduced to $9,500. Marilyn, Ext. 2259 or 878-0939.

19' O'DAY MARINER - w/trailer, 1979, good cond., $2,000. 286-1097.

19' CRUISERS - fg, 115-h.p. Johnson, galv. trailer, p/winch, $2,200. Jim, Ext. 3372 or 821-0250.

14½' SAILBOAT - fg, mahogany rudder & oars, brand-new rainbow sail, w/trailer, $400 firm. Vinny, 395-6520.

14' HOLDER SAILBOAT - by Hobie Cat, like new, $1,665; motor, 30-h.p. Yamaha, elec., low hrs., attached to Dell Quay dory, $1,575. Ginny, Ext. 5663.

12' CATAMARAN AQUACAT - w/trailer, good sail, new tramp., $600 neg. Ron, Ext. 4553.

WILBUR KETCHAM LAUNCH - 1935, 8-h.p. Palmer inboard, good cond., $750. Roger, Ext. 7518 or 878-8847.

CAR-TOPPER 9 - dinghy/rowboat, weighs only 40 lbs., new cond., $100. 765-1075.

TRAILER - winch, 2,800 lb. capacity, 2-spd., used 2 seasons, $20. Richie, Ext. 2175.

Furnishings & Appliances

BUFFET - coffee table; end table; 2 wall sconces; kitchen set; kerosene heater, Corona 22dk, heats 800 sq. ft., best offers. Bill, 924-6940 after 7 p.m.

DEHUMIDIFIER - like new, 40-pt. cap., $125. 475-8211.

DESKS - metal, locking 4-drawers, 54"x28", $50; metal, 4-drawers, 20"x54", $35; file cabinet, 6-drawer, metal, locking, legal, $35, you pick up. Bill, 878-4356.

DINING ROOM - hutch w/server, table w/2 leaves, 6 chairs, $400; 5-shelf glass & chrome etagere, $25; water bed, super single deluxe, $90 neg. 399-7997.

DISHWASHER - Westinghouse, heavy-duty deluxe, Potscrubber, black reversible covers, $150. Frank, Ext. 4220 or Vita, 277-0464.

DISHWASHER - Maytag, 6 yrs. old, $70; Surdiac coal stove, $100. Rich, 744-4816.

MATTRESS & BOXSPRING - queen, good cond., $300/both. 475-8473.

REFRIGERATOR - Gibson, 16.4 cu ft., frost-free, $100; sofa, $75; Welbilt elec. range, $75; all good cond. Steve, Ext. 7862.

REFRIGERATOR - Kenmore, 2-dr., $50; Kenmore washer, $50; Kenmore dryer, $50; nook table w/6 chairs, $50. Ext. 4869 or 766-0537.

REFRIGERATOR - 17.5 cu. ft., GE, white, 7 yr. old, $100; dishwasher, GE, under-counter, $50. Tony, 736-7942.

REFRIGERATOR - Whirlpool, 23 cu. ft., side-by-side, ice maker & dispenser in door, good cond. Bob, 981-2086.

ROCKERS - Sears, swivel, blue, good cond., $100/two. 289-3586.

SOFA BED - slip cover, v.g. cond., asking $75. Bob, 737-1786.

TABLES - coffee table, 3 lamp tables, Colonial, pine, v.g. cond., $175. 289-0413.

WATER BED - king, 12-drawer, oak, old, good cond., you dismantle & remove. 331-9882.

Sports, Hobbies & Pets

BICYCLES - 2, women's, 1 touring, 3-spd.; 1 racing 10-spd., $25/ea. 727-4884.

BIKE - girl's, 26", 10-spd., Royce Union, excel., hardly used, 4 yrs. old, $50. Mike, Ext. 7941.

BIKE - boy's, 20" BMX, Spalding SPX 2000, $35. Scott, 588-4882.

BIKE - 20", boy's, Dyno BMX v.g. cond., $125. Ext. 5080 or 751-1884.

EXERCISE MACHINE - Ski Master, hardly used, $50; filter for in-ground pool, 1-h.p. motor, f/g tank; 2 ladders; diving board. 981-5993 after 6 p.m.

GUITAR - Washburn elec. w/DeMarzio Super distortion, tremolo bar w/case, $250; Washburn acoustic guitar, 12-string, w/case, $250. Vito, Ext. 4547.

ORGAN - Wurlitzer, Multi-matic percussion, bench, excel. cond., $500; stair lift, heavy-duty, attaches to stairs, $1,500. 298-8655.

PIANO - Steinway grand, model A-243913, ebony finish. Chris, 744-6874.

ROAD BIKE - Nashbar 3000ETR, 67cm Cro-moly frame, 18-spd., Shimano Exage components, orig. $400, sell for $250. Phil, Ext. 5669.

SKI BOOTS - Raichle rear-entry, single buckle, men's size 9-9½, excel., used 3 seasons, $40. Mike, Ext. 7941.

STAIR CLIMBER - Easy Stepper, w/electronic read-out for counting reps, calories burned, etc., you pick up, $75 neg. 924-2012, leave message.

TREADMILL - Ajay Fun Fitness, speedometer, miles per hr. indicator, side rails, excel. cond., $35. Bill, 281-6498.

WET SUIT - U.S. Divers, men's med., $80. Charlie, Ext. 2407.

Audio, Video & Computer

COMPUTER - Abest 286, 40 MB HD, 1 MB RAM, 12 MHz, 3½" drive, two 5¼" drives, Samsung 14" mono. mon., mouse, printer. Ext. 2272 or 732-7634.

HARD DISK - 120 MB, $60; 105 MB, $55; 3½" floppy, $40; SVGA/MB card, $40; 16-bit I/O card, $30; 16 bit network card, $60. Ext. 3207.

MONITOR - VGA mono, Magnavox, like new, $60; DRAM, 2 MB, 70, $50; 286 mother board, $10; 40MB HD, w/controller, $50. 924-6761.

VIDEO - tutor, Windows NT Beginning, new, $25. Susan, Ext. 7647.

Miscellaneous

ENGAGEMENT RING - marquise setting, 50 pts., perfect diamonds, exquisite, neg. Donna, Ext. 5384.

JEANS - Sears, brand-new, 36/32, $15 ea. or 3/$40; Botany 500 shirt, 16, 33/34, $12. Susan, Ext. 7647.

MAPLE SYRUP - from my family's farm in Vermont. Peter, Ext. 7687 or 744-1112.

SEWING MACHINE - platform bed frame w/drawers; stoneware dishes, 12 settings, extras; aquarium w/pump, filter, etc., all reas. Ext. 3018 or 369-5181.

TICKETS - 2, Melissa Etheridge, Jones Beach, 6/27, 7:30 pm, good seats, $90/both. Joe Bush, Ext. 5409 or Laura, 736-2728.

TRUNK - very old, good cond., $50. George, 744-5851.

WHEELCHAIR - $75; walker, $75; both excel. cond. 698-3283.

Free

DALMATION - pure, 8-mo.-old female, can't give TLC due to pregnancy, lg. area homeowners only. Kelly, 399-7493.

PUPPY - pure-bred Australian cattle dog (Mad Max's dog), needs loving master. Ext. 3089 or 363-8206.

PUPPIES - need a home, mixed breed, 1 male & 1 female still available, 6 wks. old. Fred, Ext. 5319.

Yard & Garage Sales

BELLPORT - 6/10-11, 6/24-25, 61 Station Rd., all must go, small appl., furn., dishes, plates, pictures, linens, curtains, knickknacks, more.

E. PATCHOGUE - Sun., 6/11, 9 a.m.-4 p.m., 18 South William St., off Summit in Patchogue Shores.

MANORVILLE - 6/10-11, furn., collectibles, crafts, baby items, sporting equip., baseball cards, etc., 4 Ricky Road.

RIDGE - 6/10, household items, children's toys, 59 Ridgehaven Dr. off Randall Rd.

WADING RIVER - Sat. 6/10, 9 a.m.-6 p.m., Sun. 6/11, 1:30 p.m.- 6 p.m., 98 Elizabeth Dr., Lewin Hills development.

Car Pools

LIE EXIT 36 - fourth needed. John, Ext. 5181.

VAN POOL - startup for East Setauket area, save on gas, save the environment. Bob, Ext. 2270.

Lost & Found

LOST - black TPS softball bat & batting glove, left behind at Field 6 on 6/1, $20 to finder. Rich, Ext. 5893.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, religion, sex, age, national origin, disability or veteran status of the applicant.

For Rent

BELLPORT VILLAGE - upstairs 1-bdrm. apt., full bath, all new, village amenities, $625/mo. incl. util & cable. Jim, 744-2095 after 6 p.m.

CENTER MORICHES - 3-bdrm. house, 1 bath, gar., lg. yard, walk to water & village, $950/mo. + util.; 1-bdrm. apt., full bath, kit., sep. ent., furn. or unfurn., single person, $550/mo. all. 878-1178.

CORAM - Bretton Woods, 2-bdrm. condo, 2 baths, l/r, d/r, eik, all appl., ac, golf, tennis, i/o pool, clubhouse, cable, no pets, $975/mo. + util., sec., refs., avail. 8/1. 289-0413.

CORAM - 2 bdrm., l/r, kit., d/r, w/w, sep. ent., 10 min. from Lab, close to bus, lg. yard, avail. 6/1, $750/mo. + util. 821-5624 wknds. or eves.

MASTIC BEACH - modern 1-bdrm. apt., priv. ent. & patio, furn. or unfurn., $600/mo. single or $650/mo. double, 1 mo. sec., immed. occup. Pat, Ext. 3084 or 399-0438.

NORTHPORT - new 1-bdrm. apt., priv. ent., parking, sep. thermostat, carpeted, priv. beach, walk to town beach, restaurant, golf, nature area, $800/mo. incl. util., furn. avail. Ray, Ext. 7224 or 261-6455.

PATCHOGUE - 1 bdrm., priv. ent., all new, non-smoker pref., $625/mo. all, sec. 289-0967 after 6 p.m.

RONKONKOMA - 1-bdrm. apt., l/r, full bath, eik, LIE exit 59, $500/mo., no sec. 471-6416.

KEY WEST, FL - oceanfront studio timeshare, 5-star Coconut Beach Resort, sleeps 2, refrig., microwave, ac, TV, pool, Jacuzzi, fish, swim, nightlife, week of July 29-August 5. Pat, Ext. 2539 or 929-3586.

CAPE COD, MA - Dennisport, 1-bdrm. condo, sleeps 4, kitchenette, Jacuzzi, hot tub, i/o pools, walk to private beach, more, week of July 1-8, $700. 924-7476, leave message.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, pool, beach, golf nearby, April-Sept. $475/wk. for BNLers. Guy, Ext. 3147 or 689-5378.

For Sale

BLUE POINT - 4-bdrm., 2 baths, 1.3 acres, veg. garden, barn, fruit trees, solar panels, all appl., low taxes. 363-7032.

BRIGHTWATER FARMS, BAYSHORE - 3-bdrm. Colonial, fd/r, kit., l/r, laundry, den, 2 tiled baths, w/w, new walks & driveway, 5 appl., Andersens, nice area, 35 min. to Lab, $124,990. Bill, Ext. 2762 or 665-3782.

BROOKHAVEN - spacious 2-story, 4-bdrm. cedar Colonial, l/r, d/r, den w/fp, 2½ baths, screened porch, full bsmt., on cul-de-sac, south of South Country Rd., $219,000. 878-3741.

BROOKHAVEN HAMLET - Eng. cottage, country lane, c. 1738, beamed ceilings, planked floors, d/r w/fp, greenhouse off kit. Susan, Ext. 2888 or 286-1474 after 6 p.m.

BROOKHAVEN HAMLET - 2-bdrm. cottage, l/r w/fp, huge eik, renovated bath, screened-in porch, dead-end lane of Beaver Dam Rd., $119,500. Jeb, Ext. 7607, Pager 0830 or 286-0204.

EAST PATCHOGUE - Southern Country Shores, 3-bdrm. ranch, fin. bsmt., gar., shed, completely remodeled, private, almost on water, close to all, ½+ acre, low $140,000s. 475-6004.

MIDDLE ISLAND - 3-bdrm., 1½ baths, l/r, den w/fp, eik, OHWH, new vinyl siding, Thermopanes, roof, boiler, carpet, move-in cond., igs, 4.5 mi. to Lab, $97,500. Carole, 924-4927.

MIDDLE ISLAND - 2-bdrm. co-op, upper unit, l/r, d/r, kit., all appl., cac, gas heat, newly carpeted, many extras, pool, tennis, clubhouse, 80% tax write-off, $53,000 neg., must sell. Angela, 924-5282.

PATCHOGUE - 2-bdrm. house, 2 baths, eik, d/r, l/r, den, fully furn., fin. bsmt., laundry rm., 1.5 car gar. w/loft, sec. system, sprinkler system, landscaped, extras. 475-3473.

RIDGE - 3-4 bdrm. ranch, 2½ baths, laundry rm., fenced yard, ideal M/D, $114,990, willing to rent w/option to buy. Carol, Ext. 2673 or 944-8632.

ROCKY POINT - 2-bdrm. house, 2 yrs. old, 1 bath, fin. bsmt., 40'x100' fenced yard, stroll to private beach, close to shopping. Don, Ext. 2238.

SHIRLEY - 3 bdrm., bsmt., gar., new appl., new kit., w/d, d/w, d/r, alarm, dead-end street, 10 min. to Lab, fixed 8% assumable mortgage, 20 yrs. remaining. Jim, Ext. 4150 or 281-0489.

SOUTHOLD - 3-bdrm. 11-yr.-old contemporary, 2 baths, vaulted ceilings, cac, deck overlooking small pond, walk to bay beach & boating, $239,000. Ext 4747 or 765-1075.

STONY BROOK - 3-bdrm. ranch, 2 baths, l/r, d/r, eik, den w/fp, 1.5-car gar., new w/w, some new windows, updated roof/heating system/appl., move-in cond., 3VSD, $164,000. Joe, Ext. 5855 or 689-7462.

WADING RIVER - 3-bdrm. Colonial, 2½ baths, 2-car gar., custom kit., Jennair, gazebo, shed, igs, igp, deck, steam bath, satellite dish, SWRSD, 1.1 acre, $199,900. 929-8323.

YAPHANK - oversized 2-bdrm. ranch, 1 acre fenced, horse country, porches, new workshop/gar., private, treed, sep. corral w/small barn, taxes $2,700. red., $122,000. Ted, 924-0705.

PORT CHARLOTTE, FL - ¼-acre bldg. lot, developed neighborhood, ready to build, $9,000. 929-8323.

Wanted

APARTMENT OR HOUSE - to rent, 2-bdrm., Mt. Sinai SD. 473-6507.

CO-OP/CONDO - to rent, 1 bdrm., single prof. female w/refs. and 7-lb. dog, $600-$700/all, prefer near LIE, Holtsville area. 878-2023.

DRAWING TABLE - Anco-type, all wood, A-frame stand, 23"x31" size; gas-powered rototiller, minisize. John, Ext. 7671.

HOMES FOR BNL VISITORS/GUESTS - furn. apt., condos or homes short-term rentals. Marie, Ext. 4489.

MONOPOLY PIECES - from McDonalds promotion, will trade pieces you need or share prize. Steve, Ext. 4475.

OLD LAWN MOWERS - and lawn tractors, complete only, please. Dan, 698-7322.

ROOMMATE - female to share 2-bdrm. co-op apt. in Brooklyn Heights, private ½ bath, ac, sublet July & Aug. $450/mo. Ext. 7286 or 581-7656.

SAXOPHONE - for young beginning student. Anne, 361-6835.

SHOP MANUAL - for 1987 Nissan Maxima, 4-dr. sedan. Chris, 744-6874.

TREADMILL - new or used. Vic, Ext. 7016.

WOMEN SOFTBALL PLAYERS - for teams in mixed league 1 & 2 of the BERA Softball League, Rich Scheidet, Ext. 5284, or Denise Miesell, Ext. 5873.

Ads left out of this issue due to lack of space need not be resubmitted to appear in the next issue.