BROOKHAVEN BULLETIN
Vol. 44 - No. 41 October 19, 1990
BROOKHAVEN NATIONAL LABORATORY

Human Heart Scanned Successfully With NSLS X-Rays

The first human heart images made using x-rays from the National Synchrotron Light Source (NSLS) were taken on Friday, October 5 — marking the first use at BNL of an experimental technique called transvenous angiography to picture the coronary arteries.

A second set of x-ray scans was taken at the NSLS on Tuesday, October 9, of another male volunteer from North Shore University Hospital who also has coronary heart disease.

Transvenous angiography is a much less dangerous approach to studying coronary heart disease in living human beings than the diagnostic technique currently used in hospitals.

Both sets of transvenous angiography scans were made using the high-intensity, monochromatic x-rays available at the X17B superconducting-wiggler beam line of the NSLS x-ray synchrotron ring.

"The research team is excited by the quality of the first images," reports Physicist William Thomlinson, who is NSLS Associate Chairman and director of the NSLS transvenous angiography project.

Along with Thomlinson, the research team includes physicians Edward Rubenstein, Stanford University School of Medicine, California; John Morrison, North Shore University Hospital (NSUH), Manhasset, N.Y.; and John Giacomini and Helen Gordon, Palo Alto Veterans Administration Hospital, California.

The project's scientists from outside institutions are: physicists Robert Hofstadter, Stanford University; Albert Thompson, Lawrence Berkeley Laboratory; Herbert Zeman, University of Tennessee; and George Brown, Stanford Synchrotron Radiation Laboratory (SSRL).

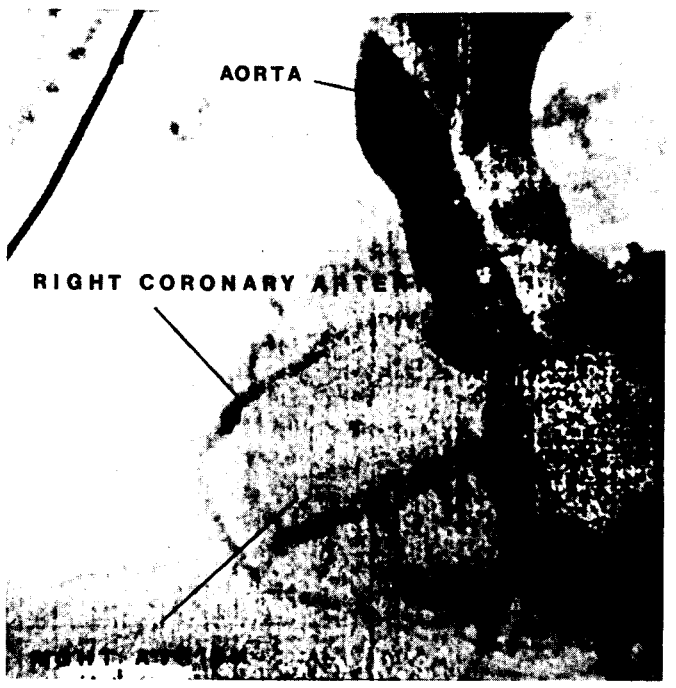
BNL staff working with them include: Dean Chapman, Nicholas Gmur, Richard Green and Nancy Lazarz of the NSLS; and Richard Garrett of BNL's Medical Department.

Feasibility Demonstrated

"These first images thoroughly demonstrate the feasibility of doing coronary artery disease research using our x-ray synchrotron," adds Thomlinson. "While the first two sets are not of diagnostic quality, we anticipate making clinically useful images within a year, as the x-ray flux at the beam line increases."

When the x-ray flux is increased, it will be possible to take series of images of the coronary arteries of individual patients over the years — something not now possible with the current, more risky procedure.

In the synchrotron medical research facility, where the first heart images using NSLS x-rays were taken this month, are members of the transvenous angiography team: (front, from left) Susan Vogt, Herbert Zeman, Mae Ward; (back, from left) Daniel Slatkin (sitting in the patient chair), Al Thompson, Richard Garrett, William Thomlinson, Nicholas Gmur, Noelwah Netusil, John Morrison and Veronica Brooks. — Photo by Roger Stoutenburgh



One of the first images of the human heart using x-rays from the National Synchrotron Light Source: a left anterior oblique view of a male patient's heart taken on October 5, showing the right coronary artery.

The goal of the transvenous angiography research team is to map the natural course of coronary artery disease and to evaluate the effectiveness of nonsurgical treatment of heart attack patients.

"We know that such factors as high-fat diets, high blood pressure, smoking and lack of exercise contribute to coronary artery disease," explains John Morrison, who is Co-chief of the NSUH Division of Cardiology and the physician responsible for the first two patients.

"What we do not know, however," he continues, "are the details of the disease's progression and its response to different medical treatments. Transvenous angiography is a less invasive research tool that will not only expand our knowledge, but should also benefit our patients."

For the first two transvenous procedures, Morrison was assisted by physicians Vellore Padmanabhan and Peter Reiser, and nurses Susan Vogt and Mae Ward, NSUH. The medical component was completed by nurses Veronica Brooks and Noelwah Netusil of BNL's Medical Research Center within the Medical Department.

Following up on the initial success with the first two patients, the transvenous angiography team plans to image the coronary arteries of ten more patients by next February. A total of 50 sets of images are scheduled to be made by the end of fiscal year 1991.

In the future, if the new technique proves useful, its success could encourage the development of compact medical synchrotrons dedicated to screening patients at risk for coronary artery disease.

The research is supported by the Office of Basic Energy Sciences and the Office of Health & Environmental Research, both of the U.S. Department of Energy; and the Device and Technology Branch of the National Institutes of Health. Some funds from Brookhaven have also been made available through the Director's Exploratory Research Program.

Approximately five million Americans have coronary heart disease, and about 500,000 die each year from its most dreaded symptom — heart attack.

Encompassing heart attack, chest pain and arteriosclerosis, coronary heart disease occurs due to insufficient blood supply through the coronary arteries that supply the heart with blood. The coronary arteries are usually narrowed as a result of atherosclerosis, the deposition of fatty plaque within the inner walls.

Corrective measures fall into two categories: Medical treatment includes medication, diet and exercise. Two surgical options, coronary bypass surgery or balloon angioplasty, are elected by one million U.S. heart disease patients per year.

Artery vs. Vein

Ideally, in deciding on the appropriate treatment for all patients with coronary artery disease, physicians would want to assess the condition of the coronary arteries themselves. However, today's conventional diagnostic technique — arterial catheterization — involves significant risk to the patient.

About 0.5 percent of patients who

(continued on page 2)

Patent Awarded for Fluorometer

Zbigniew Kolber and **Paul Falkowski,** both of the Oceanographic & Atmospheric Sciences Division, Department of Applied Science, were awarded U.S. Patent no. 4,942,303 for their design of a computer-controlled fluorometer for making rapid and accurate measurements of plant and phytoplankton photosynthetic parameters.

A fluorometer is an instrument to measure the fluorescent radiation emitted by a sample when it is exposed to monochromatic radiation. Kolber and Falkowski's patented fluorometer is a portable and submersible device designed to take fluorescent readings from phytoplankton and underwater plants in situ in the ocean.

The new fluorometer consists of pump and probe light sources, a sample chamber, four detector channels, one data-acquistion module, and a single-board, programmable computer. Using what is called the pump and probe technique, this fluorometer measures photosynthetic production rates instantaneously along a water column.

To estimate relative growth rates and the nutrient status of phytoplankton and water plants, this fluorometer records changes in the fluorescence of chlorophyll, the green pigment in plants which is needed for photosynthesis. The chlorophyll fluoresces in response to a computer-controlled series of light-flash cycles from pump and probe sources.

The pump source produces a strong flash of light, while the preceding and succeeding probe flashes are relatively weak. By using a cylindrical mirror around the sample chamber, this fluorometer needs five times less energy for the pump and probe flashes.

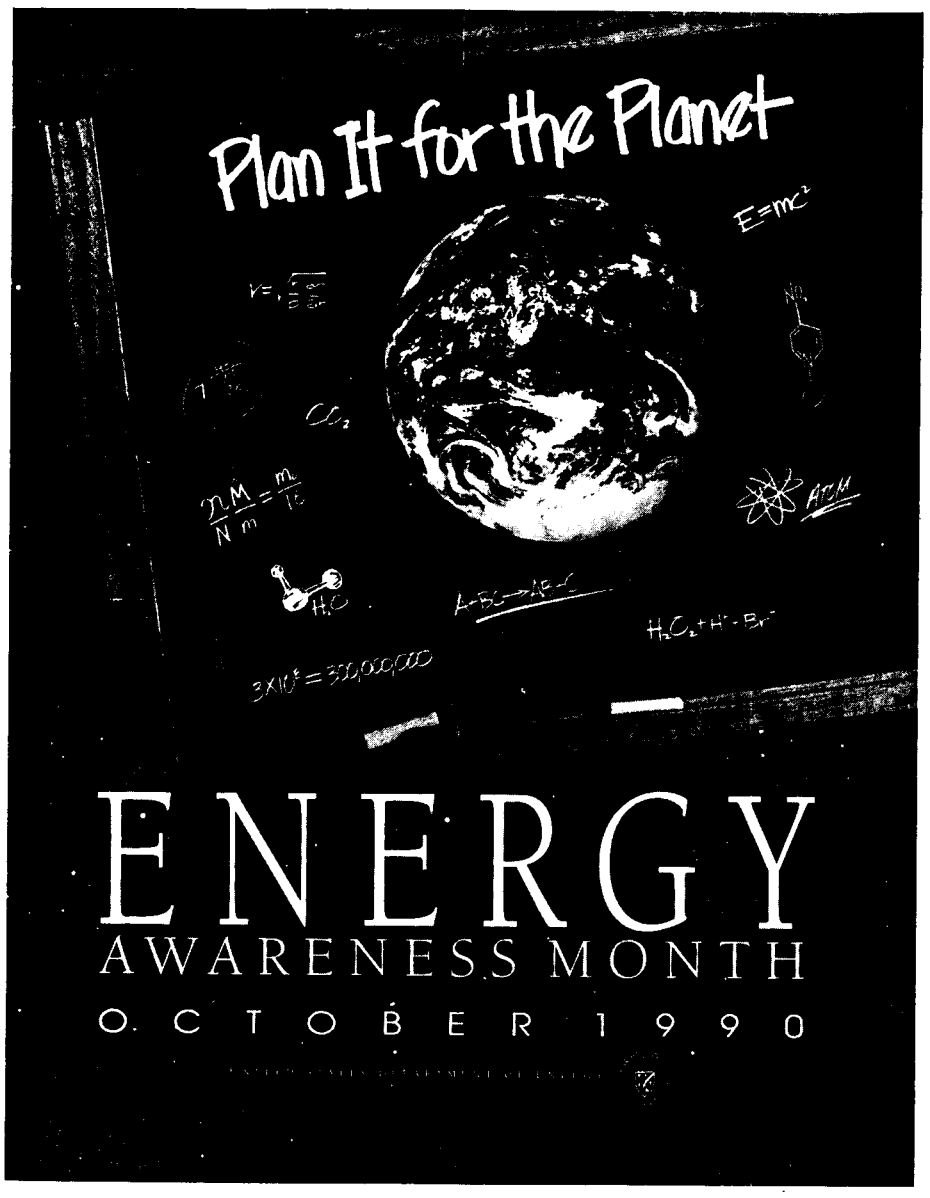
The pump and probe flash intensities, increments and sequences are varied by computer, so that maximum fluorescence yields, optical absorption cross sections and turnover times of photosyntheic samples may be measured simultaneously under ambient light or darkness.

Because of its design, this fluorometer can measure chlorophyll concentrations as low as 0.05 micrograms per liter.

In addition to its other measuring capabilities, the submersible fluorometer can also read signals from temperature and depth sensors.

Still Working Well

Included in Newsday's commemorative issue *Celebrating Fifty Years of Newsday and Long Island,* released October 14, is a list of "50 Things That Still Work." As the introduction explains, "Okay, forget the traffic, the taxes, the high cost of housing, the economic slowdown and the gunk that sometimes washes up on the beach. There are things on Long Island that still work very well." And among those 50 things are listed "The Cold Spring Harbor and Brookhaven National laboratories."



Reenergizing Energy Awareness

October is Energy Awareness Month — a good time to reenergize BNL employees' enthusiasm for energy conservation.

Since 1973, energy conservation programs have saved BNL more than $160 million in energy costs by using $31 million invested by the U.S. Department of Energy (DOE) for over 50 energy conservation projects on site.

After being enrolled by BNL energy conservation engineer Mark Toscano in the Long Island Lighting Company's (LILCO) Energy Cooperative, the Lab earned a rebate of $239,491.20 for its participation from this June through September. This sum can be added to the $109,000 refund that BNL earned last year, its first year of co-op membership, and the $400,000 rebate that was presented to the Lab under another LILCO program, for Brookhaven's commissioning of the Central Chilled Water Facility (CCWF).

Given the Middle East crisis, however, President Bush recently gave all federal departments and agencies until 1995 to reduce their energy consumption by 10 percent under what it was in 1985.

According to Gregory Flett, Manager of the Energy Conservation Group (ECG) in BNL's Plant Engineering Division, the Lab has already reduced its building energy use by 8 percent under the 1985 baseline. Says Flett, "To meet our goal, however, we need employees' cooperation with existing energy-saving projects and their suggestions for new ones."

Ongoing projects initiated by ECG include an energy management control system (EMCS), unveiled when the CCWF, Bldg. 600, opened this March.

Explains Toscano, "In the six buildings connected to the EMCS network so far, the heating, ventilation and air-conditioning units are controlled by this automated system, which replaced outdated pneumatic controls. Once the final control adjustments are completed, it should be more comfortable in those buildings and in the next 20 to be hooked up to the system over the next three years."

Another project will add additional meters to monitor electrical, steam and chilled water consumption on site. "These meters will not only help verify actual energy consumption and savings, but they will also eliminate estimated energy bills and encourage conservation," says Flett.

To bring DOE's energy consumption down, the In-House Energy Management Program of DOE's Office of Projects & Facilities is now funding projects that will pay for themselves within ten years, instead of the previous payback limit of five years.

"Extending the payback period makes more funds available to us, for things like insulation, siding and replacement windows," explains Toscano. "Projects like these save energy and upgrade existing systems at the same time, so we're looking for suggestions."

To suggest possible energy-conserving projects for BNL to undertake, contact Flett, Ext. 3263, or Toscano, Ext. 2599. — Marsha Belford

Workstation Ready for Evaluation

A DECstation 5000, model 200, Unix-based workstation can now be tested and evaluated by users.

The workstation is based on a 25-MHz, 32-bit RISC CPU, and delivers 24 MIPS and 3.5 double precision MFLOPS. System software includes FORTRAN, C, NFS, SQL, DECNET, DEC Windows and CAD/CAM, running under Ultrix 4.0 and UWS 2.2.

Located in the workstation room of Bldg. 515, opposite the user cubicles at the Central Scientific Computing Facility, the workstation is networked and accessible on the BNL LAN at Internet address 130.199.129.148, with host name dec5000.ccd.bnl.gov. It is also on DECNET at address 43.1020, with DECNET name BNL5KA.

Interested users may contact Curt Bergh, Ext. 7152, to schedule console time or for additional information.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, October 22, at 6 p.m. in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda are regular business, committee reports and the president's report.

ANS Meeting

M. Jack Ohanian, president of the American Nuclear Society (ANS), will speak on "Non-U.S. Nuclear Energy Developments," at the next meeting of the Long Island Section of ANS, on Wednesday, October 24, at the Bavarian Inn in Lake Ronkonkoma, at 8 p.m., following cocktails at 6 p.m. and a buffet dinner at 7 p.m. The speaker will be introduced by Eena-Mai Franz of BNL's Department of Nuclear Energy, a former L.I. ANS Section president.

To make reservations, call 436-4227.

Software Demo

On Tuesday, October 23, at 2 p.m., in the CCD Seminar Room, Bldg. 515, Wayne Kaplan of Symantec will demonstrate Grandview, a PC-based package that performs such management tasks as project planning, appointment scheduling, performance tracking, progress monitoring, report generation, and script, speech and memo writing. With a few keystrokes, these tasks can be translated into presentation graphics via Harvard Graphics or Freeland.

The Norton Anti-Virus program will also be shown.

Heart Scan (cont'd)

undergo arterial catheterization for conventional angiography suffer some ill effects, including heart attack and stroke, and about 0.1 percent die as a result. So today, only those with advanced disease have their coronary arteries assessed.

The risks arise primarily from the fact that a catheter is inserted into an artery. In the process of being threaded through the artery into the heart, the catheter itself can cause cardiac arrhythmia, or it can dislodge atherosclerotic plaque. This, in turn, may block blood leading to major organs, causing heart attack, stroke or other organ damage.

Also, the contrast agent momentarily replaces blood as the dye is injected through the catheter directly into the coronary arteries. Though injecting iodine-containing opaque dye is necessary to make the image, it can also precipitate a heart attack.

On the other hand, transvenous angiography does not hold such risks for patients because, first and foremost, the catheter is placed in a vein, not a pressurized, plaque-containing artery.

Second, the catheter is threaded only to the tip of the superior vena cava, which is one of two large veins that brings blood into the heart. Therefore, the iodine contrast agent is diluted by blood before it reaches the coronary arteries.

As a result, however, the arteries containing the diluted dye used in transvenous angiography cannot be visualized using conventional x-ray techniques. This is because of the background due to the filled heart ventricles and the beating motion of the heart.

Therefore, a technique called "K-edge subtraction" is employed using a synchrotron x-ray source.

K-Edge of Iodine

When struck by x-ray light, electrons within the innermost electronic shell — the K shell — are ejected from an atom of iodine when the x-ray's energy is at or above 33.16 thousand electron volts (keV). Above this K edge, something called the absorption cross section of iodine is six times greater than below 33.16 keV, while the cross sections for soft tissue and bone change very little.

So, to use K-edge subtraction to obtain one clear picture of the coronary arteries, two simultaneous x-ray scans of the diluted iodine contrast material within the coronary arteries are made. The first image is taken using an x-ray beam with an energy above the K-edge of iodine, the second with x-rays of the same wavelength but with energy below 33.16 keV.

To eliminate the contrast due to soft tissue and bone, the lower-energy scan is then subtracted logarithmically from the higher energy image. What is left is a picture showing only the contrast from the iodine dye within the coronary arteries.

Superconducting Wiggler

At the energy of iodine's K-edge, the x-rays produced for beam line X17B are 200 times more intense than those emitted elsewhere around the NSLS x-ray ring.

These super-intense x-rays are produced by the X17 superconducting wiggler. It is a high-field magnet, which was inserted into a straight section of the NSLS x-ray ring in 1988. By wiggling the electrons circulating around the synchrotron ring, this insertion device causes the electrons to emit higher intensity, as well as higher energy x-rays.

To take advantage of the energy and intensity of the X17 wiggler, the transvenous angiography project was moved from SSRL to BNL in 1989 and commissioned in 1990.

Originated by Edward Rubenstein and Robert Hofstadter in 1981, the project made the world's first human coronary artery images using synchrotron x-rays at SSRL in 1986.

Two primary reasons influenced the move to BNL: First, the NSLS x-ray ring is totally dedicated to producing synchrotron radiation; second, beam line X17B has dedicated 25 percent of its operating time to medical research and is equipped with the world's only synchrotron-based medical research suites.

To accommodate the physicists, physicians and patients involved in such research, the synchrotron medical research facility (SMERF) was started in 1985 as part of the NSLS Phase II expansion and completed this year.

Within SMERF's imaging room, a patient is seated in a special chair, which is moved vertically so that the two x-ray beams converge in a horizontal line at the patient's heart. The beams then diverge toward a pair of position-sensitive detectors, developed by Albert Thompson and colleagues, that electronically record the two images separately.

The two scans are subtracted logarithmically by computer to generate a two-dimensional picture of the coronary arteries. The imaging software was developed by Herbert Zeman and collaborators.

For a transvenous angiography scan, during which three views of the coronary arteries are taken, the total x-ray dose absorbed by the patient is no more than the dose received during a conventional angiogram.

As William Thomlinson concludes, "This research start could not have happened without years of effort contributed by many, many people at the Light Source. I want personally to thank Nick Gmur, as well as each and every member of the beam line technical support group, the power supply and diagnostic groups, the machine operators and coordinators, the accelerator physicists, the design and engineering staff, the carpenters and electricians, the administrative staff, and the department's management." — Marsha Belford

Coming Up

First BERA Concert

The 1990-91 BERA Concert Series will be ushered in on Monday, October 29, with a recital by internationally renowned pianist John O'Conor, at 8 p.m. in Berkner Hall.

O'Conor's program will include Haydn's Sonata in F Major, H. XVI:23; Schubert's Four Impromptus, Op. 90; Nocturne in B Flat Major by John Field; Chopin's Nocturne in E Flat Major, Op. 9, No. 2; Nocturne in D Flat Major for the Left Hand, Op. 9, by Alexander Scriabin; and Beethoven's Sonata in C Major, Op. 53, *Waldstein*.

O'Conor's is the first of five concerts in the 1990-91 series. Also scheduled are the Panocha String Quartet, November 29; Trio Bell'Arte, February 6; The Mannes Trio, March 13; and the Atlantic Brass Quintet, April 23.

Tickets can be purchased at the door for $12 general admission, $9 students and those over age 65, and $5 children under 18. Block tickets, good at any concert, will also be sold at the door at this first concert, for $9 each for a minimum of five tickets.

Block tickets may be purchased now at the BERA Sales Office, Berkner Hall, or from: Clemens Auerbach, Bldg. 197C; Jane Bennett, Bldg. 460; Leroy Blumberg, Bldg. 725C; M. Kay Dellimore, Bldg. 185; Howard Gordon, Bldg. 510A; Geoffrey Hind, Bldg. 463; Richard Holroyd, Bldg. 555A; Alfredo Luccio, Bldg. 911A; Walter Mangel, Bldg. 463; Edwin Popenoe, Bldg. 490; and Stephen Schwartz, Bldg. 426

Landfill Tour

Last month, Brookhaven Women in Science (BWIS) arranged a noontime tour of two facilities that are part of the Lab's infrastructure: the sewage treatment plant and the landfill. The first stop proved so interesting that the whole hour was spent there, and the landfill tour was postponed.

The landfill tour has been rescheduled for Thursday, October 25. The free tour will leave at noon from the parking lot by the tennis courts, and will be preceded by a brief presentation.

Anyone — BWIS member or nonmember — interest in joining this tour should reserve transportation space by calling Dorry Tooker, Ext. 2076. Bring your lunch, and enjoy a fascinating tour.

Bowling

Red/Green League

N. Franco had a 234/207/608 scratch series. T. Prach 233/607 scratch, C. Bohnenblusch 225/202, R. Larsen 222, N. Parrinello 213/201, E. Sperry IV 213, N. Fewell 204, W. Powell 202, R. Mulderig 201, K. Riker 201, R. Jones 200.

Purple League

Alice Belmonte had a 222, Mary Scheidet 213, Lee Grimes 208, Theresa Guadagna 202, Pete Stelmaschuk 202, Ed Sperry IV 201, Georgia Irving 195, Kay Conkling 190/186, Denise Monteleone 189, Judy Colman 182, Pat Manzella 181, Steve Gushue converted the 4/7/10.

White League

Andy Warkentien had a 212/204, Caryl MacDougall 208, Lynne Warkentien 192, Gerry Riker 186, Betty Jellett 180, Paul Callegari converted the 4/7/10.

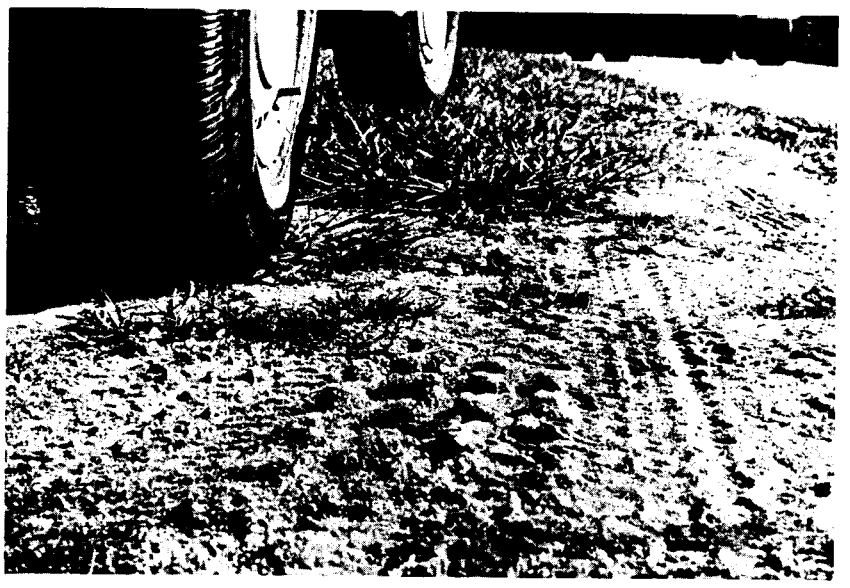
BROOKHAVEN BULLETIN

Published weekly
by the Public Affairs Office
for the employees of
BROOKHAVEN NATIONAL LABORATORY

ANITA COHEN, Editor
MARSHA BELFORD, Assistant Editor
LIZ SEUBERT, Reporter

35 Brookhaven Ave., Upton, N.Y. 11973
(516) 282-2345

Where Have All the Grass Blades Gone?



This photograph shows how effectively tires rub out grass. And that's a problem that the Lab is hoping to rub out in certain areas — with tickets. The aim is to clear all vehicles from the islands of green that are so carefully maintained by the Lab's Grounds & Sanitation Crew. One especially hot target is around Berkner Hall, where there is ample parking space provided, although only early-comers get to be right near the building. Rather than have $50 tickets charged against their departments, drivers may prefer to lose a few calories and walk further to park in a legal spot. — Photo by Roger Stoutenburgh

Archery Tournament

The Archery Club will hold a fall tournament on Saturday, October 27, at noon at the archery range. After the tournament, there will be awards, a drawing for prizes, hamburgers, hot dogs and soda.

Entry fees are $2 for members, $3 nonmembers and $1 non-shooters. The rain date is Sunday, October 28, at noon.

For information, call Bill Schoenig, Ext. 2377.

Camera Club

The Camera Club will hold its regular monthly meeting on Thursday, October 25, at 5:30 p.m. in the Recreation Building lounge.

At the meeting, members will discuss the club's upcoming field trip on Saturday, October 27, to the Bayard Cutting Arboretum, to photograph the fall foliage.

After the meeting, the group will change the Berkner Hall photo display. If possible, bring pictures with a Thanksgiving theme, though other subjects will also be displayed. Photos should be mounted, framed and 8x10" or larger.

Astronomical Society Hosting a Star Party

The Astronomical Society will hold an All-Star Party tomorrow, Saturday, October 20, at 7:30 p.m. Wear sweaters and warm socks, and drive to the on-site observatory to star gaze. Bring your own telescope if you can — even if you don't know how to use it, there will be experts to help.

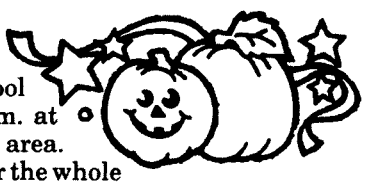
Admission is $1 for nonmembers. Call Keith Power, Ext. 7772, for directions and weather information. Rain/cloud date is October 27.

Mountain Club Hike

The Mountain Club is planning a ten-mile hike on Saturday, October 27, in the Hudson Highlands area near Bear Mountain State Park. It will begin at 9:30 a.m. in the parking lot of the Bear Mountain Inn and last about eight hours. The hike is free, through there is a $3 parking fee.

Warm, layered clothing, including sweater, windbreaker, hat and gloves, is recommended. Bring lunch, trail snacks and at least one quart of water. For information and directions, call Susan Hobbie, Ext. 7511.

Come to a Halloween Carnival



A pumpkin decorating contest will highlight the Halloween Carnival that will be held by the Upton Nursery School on Saturday, October 27, from 1 to 4 p.m. at the Recreation Building in the apartment area.

Rain or shine, the carnival will be fun for the whole family. It will also feature face painting, helium balloons, live music and a clown. Refreshments will be sold.

To enter the contest, bring an already-decorated pumpkin, which will be returned, and a $3 entry fee for each pumpkin. Prizes will include gift certificates of $5 to $50 values, good for restaurant meals, books, groceries, appliances and more.

For more information, call Cal Roberts, 874-2992, or Jim Roberts, Ext. 7990.

Arrivals & Departures

Arrivals

Michael A. Baldwin.....Reactor
Victor A. Cassella.....S&EP
Katherine Marie Foy.....P&GA
Maryann Kershaw.....Medical
Catherine L. Lawson.....Biology
Mary L. Wood.....Occ. Medicine

Departures

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

James C. Booth.....AGS
Cynthia A. Salwen.....AGS

Amateur Radio Club

The Amateur Radio Club will meet in Berkner Hall, Room D, on Thursday, October 25, at noon. The agenda includes a discussion of current club business and upcoming activities.

BNL employees and Lab guests who are licensed radio amateurs or who wish to obtain their licenses are invited to attend. For more information, call Andy Feldman, Ext. 3264, or Bob Bacharach, Ext. 7790.

Atlantic City Trip: Pay Less, Get More

BERA has renegotiated with the bus company for the trip to Atlantic City announced two weeks ago, and has come up with a much better package for BNL employees. The date will be the same — Saturday, November 10 — but the bus will go to Trump Castle on the Marina. From there, a jitney to the Boardwalk costs $1.

The initial cost of the trip is still $19, but participants will now receive $12.50 coin, $4 towards food and a $5 deferred voucher.

The bus will leave promptly at 9 a.m. from the Brookhaven Center, with a stop at LIE Exit 63 if requested. Return to BNL will be at about 11 p.m.

Paid reservations may be made through Friday, November 2, at the BERA Sales Office. For more information, call Louisa Barone, Ext. 3347, or M. Kay Dellimore, Ext. 2873. Sign up now — this will be the last trip in 1990!

Wine & Cheese Party

Brookhaven Women in Science (BWIS) will hold its annual Wine and Cheese Party at the Brookhaven Center on Thursday, November 1, from 4:30 to 6:30 p.m. All BNL employees are welcome.

The party is held every year to introduce BWIS's new officers and recruit new members.

Over the last 11 years, BWIS's efforts have been instrumental in initiating an on-site credit union, coordination of insurance benefits for married BNL couples, a parental leave policy, the proposal for a child-care center on site, and greater awareness of the Lab's sexual harassment policy.

For more information about the party, call Betty McBreen, Ext. 5111.

Note to Employees:

Attendance at lectures, meetings and other special progams held during normal working hours is subject to supervisory concurrence.

Cafeteria Menu

Luncheon

Monday, October 22

Soup: Vegetable barley	.75/.95
Entree: Grilled beef liver, onions, veg.	3.10
Entree: BBQ chicken w/1 veg.	3.10
Fitness: Oven-broiled fish amandine w/1 veg.	3.10
Carvery: Hot pastrami sandwich	2.85
Grill: Grilled Reuben	2.85
SPICE: Lighten up	

Tuesday, October 23

Soup: Navy bean	.75/.95
Entree: Chicken Parmesan hero w/veg.	3.10
Entree: Pork fried rice w/1 veg.	3.10
Fitness: Escalloped ham w/1 veg.	3.10
Carvery: Hot roast beef sandwich	2.85
Grill: Cook's choice	2.65
SPICE: Pasta trio	

Wednesday, October 24

October Fun Fest

Complete lunch — $4.95; a la carte available
potato chowder
choice of entree: Heidelberg roast pork, knockwurst, *or* chicken Waldorf sandwich
whipped potatoes
sweet & sour red cabbage
cucumbers w/sour cream *or* Munich salad
Black Forest cake *or* lemon Alps

Thursday, October 25

Soup: Vegetarian vegetable	.75/.95
Entree: Kielbasa & sauerkraut w/1 veg.	3.10
Entree: Chef's choice w/1 veg.	3.10
Fitness: London broil w/1 veg.	3.10
Carvery: Hot corned beef sandwich	2.85
Grill: Shrimp in a basket	2.95
SPICE: Yogurt toppings galore	

Friday, October 26

Soup: Clam chowder	.75/.95
Entree: Fried chicken w/1 veg.	3.10
Entree: Spaghetti & meatballs	3.10
Fitness: Baked fish w/1 veg.	3.10
Carvery: Hot turkey sandwich	2.85
Grill: Fried fillet sandwich	2.85
SPICE: Apple celebration	

Oktoberfest

Enjoy German dinner entrees at the Brookhaven Center.

October 29 — November 2

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.

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

4334. DEPUTY BUDGET OFFICER - Requires a bachelor's degree (MBA preferred) in business administration, excellent analytical and communications skills, and significant experience in the budgetary and fiscal management of a large organization. Also requires substantial experience with the Laboratory's budgeting process, knowledge of computer applications and internal financial planning. Reporting to the Budget Officer, will be responsible for assisting in the development of budgetary plans, preparing of total Laboratory budget and supporting data for the DOE and NRC, and performing broad management assignments within the Budget Office, including supervising support staff in office. Budget Office.

4335. REGISTERED NURSE (part-time) - Must be a licensed registered nurse with prior clinical experience. Will assist in patient care and related nursing activities, including various clinical procedures and studies in nuclear medicine group. Medical Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4336. TRAINING & RECORDS POSITION - Requires BS in physics/radiological sciences, safety engineering or related field. Will manage all training and records pertaining to safety within the department. Responsibilities will include organizing, developing and instructing safety training programs. Will develop a training data base to document and track all phases of safety training. Requires excellent communication skills. (Reposting of Job 4302). Alternating Gradient Synchrotron Department.

Motor Vehicles & Supplies

90 FORD LARIAT - diesel, 4wd, white, 4-dr., mint cond. 874-2614.

88 LINCOLN TOWN CAR - Signature Series, fully loaded, maroon, 33k mi., mint cond., $16,000. Grace, 475-8473 after 5:30 p.m.

88 FORD F150 PICKUP - 2wd, white, 52k mi., ask. $7,995; '87 Chrysler New Yorker Fifth Avenue, loaded, 52k mi., ask. 6,996. George, 588-9459.

88 TOYOTA EXTRA CAB 4x4 PICKUP - bed cover, a/t, p/s, p/b, mint cond., $9,350 neg. 363-6673.

88 HONDA ACCORD LXI - 4-dr., champagne, 55k mi., p/sunroof, loaded, $8,900; car top carrier, 18 cu. ft., $100. Don or Sue, 473-6570 after 7 p.m.

86 BUICK CENTURY - custom, 4-dr., a/t, a/c, p/b, p/s, 74k mi., mint cond., best offer. Ext. 5240 or 821-6321.

86 CHEVY SPRINT - 5-spd., 50 mpg, stereo, silver, mint cond., asking $2,850. Ext. 3983.

86 CHRYSLER FIFTH AVENUE - silver, 68k mi., new tires, all power, ac, extras, electric sunroof, immac., $6,500. John, 878-4414.

86 HI-POINT TRAILER - fiberglass, totally encl., rear ramp, side door, tandem wheels, 16', $2,500. Lois, Ext. 4904 or Bob, 929-4753 eves.

86 SUBARU - 2-dr., 4wd, roof rack, 76k mi., good cond., $3,800. 585-4741.

85 GMC PICKUP - 6.2L diesel, a/t, cap, loaded, must see, $8,500. 475-6961.

84 WILDERNESS TRAVEL TRAILER - 24', upgraded package, excel. cond. Chris, Ext. 7636.

84 MERCEDES 300D - turbo, nautical metallic blue, palomino leather, all service records, 77k mi., $13,200. 537-0320.

84 DODGE COLT - turbo, high mileage, 4-spd., runs well, body rust, $300 or best offer. Ext 3983.

84 SUZUKI RM250 - liquid-cooled DG racing engine, new tires, chain, sprockets, maintained in excel. cond., clean, fast. Glenn, 499-6341.

83 NISSAN SENTRA - 4-dr. wagon, 5-spd., am/fm, ac, 79k mi., white, good body, may need engine work, best offer. Ext. 7139 or 878-1831 eves.

83 CAPRICE CLASSIC WAGON - loaded, $3,000; '84 Mazda pickup, $400. 369-0517.

83 DODGE - 2-dr., 4-cyl., ac, p/s, p/b, am/fm cass., clean, needs some work, orig. owner, $1,995 or best offer. Ext. 5036.

82 DATSUN 280 ZX - T-top, loaded, low mi., excel. cond., in/out. Steve, Ext. 7936 or 243-1755.

82 PONTIAC - 6-cyl., ac, good cond., $1,800. Bert, Ext. 5156 or 581-4436.

81 BUICK CENTURY - V-6, 4-dr., new water pump, alternator, exhaust system, 5 Michelin tires, just tuned, $1,500. Ext. 4204 or 588-3146.

81 KAWASAKI 440 LTD - 13k mi., new tires, brakes, chain, sprockets, battery, sissy bar, must sell, moving, v.g. cond., asking $650. 474-5715.

81 MERCURY CAPRI - black, ac, p/s, p/w, a/t, excel. cond. Ext. 3499 or 878-0197.

80 CHEVY MALIBU- 4-dr., p/s, p/b, a/t, V-8 small 267, blue/blue, gauges, all factory, orig. owner, garaged, $2,000. Al, Ext. 3992 or 331-1003 eves.

80 BUICK LE SABRE - a/t, ac, p/s, p/w, am/fm cass., new tires, needs brakes, good cond. in/out, $600 or best offer. S. Spark, Ext. 4111.

80 GMC PICKUP - shortbed, 6-cyl., 3-spd., v.g. cond., $2,000. Ext. 7686 or 874-2789.

80 FORD F250 4x4 PICKUP - 33" tires, eng. runs well, 3" lift kit, new brakes & transmission, cap, tool box, 4 extra tires. 475-9452.

80 BUICK PARK AVENUE - running, $900. Mark, Ext. 2957.

80 TOYOTA CELICA - h/b, good running cond. & body, clean, reliable, recent maintenance & repairs, $1,000 firm. Lois, 928-5053 after 6 p.m.

79 CADILLAC ELDORADO - silver, gray leather int., astro roof, $1,500. Edwards, Ext. 4308.

79 SAAB 99 - 2-dr., ac, am/fm, new exahust, battery, tires, roof rack, trailer hitch, v.g. cond., asking $1,800. Ext. 4575.

79 AMC CONCORD - 4-dr., a/t, ac, am/fm cass., 93k mi., runs well, $300 or best offer. Tom, Ext. 4367.

76 CHEVROLET NOVA - ac, 4 new tires, runs OK, parts, $150. Alastair, Ext. 5334.

75 CAMARO - for parts only. John, Ext. 5302.

72 PONTAIC VENTURA - 65k orig. mi., good cond., $250. John, Ext. 3762.

66 VW BUG - many new parts & paint, runs well, 6-V, 4-cyl., $800. Jim, 585-3708 before 2 p.m.

31 CHRYSLER - all orig., low mi., runs well, excel. cond., $7,000. Ext. 3160 or 289-5704 after 5 p.m.

GLASS T-TOPS - '83-'87 Camero or Trans Am, mirror inside, smoked tint outside, $400 per set. Edwards, Ext. 4308.

TIRES - 2, 155/80/13 M&S, good cond., $15 ea. Ext. 4597 or 924-8213.

ADAPTER - CDI adapter for car radio, CD used 2 wks., cost $55, asking $40. Diana, Ext. 3379.

TIRES - 3 Firestone & 1 Goodyear, 10-15 LT, mounted on 6 lug rims, $100 for all. Tirre, Ext. 3288 or 281-0360 after 6 p.m.

CAP - Toyota pickup, alum., white, excel. cond., $125. Bert, Ext. 5156 or 581-4436.

Boats & Marine Supplies

30' PALMER SAILBOAT - 4-cyl., ib., head, galley, dining, 2 mains, 4 head sails, instrum., sleeps 6, $14,000, $16,000 after 11/1. 758-9818.

27' HUNTER - 1977, wheel, new 18-h.p. diesel, Loran, etc., asking $16,500. 546-1198.

23' SUNRUNNER - 1985, 220-h.p. Volvo i.o, aft cabin, sleeps 4, standup head w/shower, kit. w/stove, frig., more, $13,900. Richy, 696-7114.

21' LOBSTER BOAT - fiberglass hull, good cond., needs ob., inspect at Beaver Dam Boat Basin, Brookhaven, make offer. Thorndike, 286-8369.

19' BOWRIDER CRUISER - 1972, w/1976 115-h.p. Johnson, canvas, trailer, w/elec. winch, $2,500. Frank, Ext. 2314 or 567-5131.

13' BOMBARD - 1987, inflatable, 30-h.p. Mariner, '87 trailer, all access., excel. cond., great scuba diving, must sell, moving, $3,500. 474-5715.

10' BOMBARD - 1989, inflatable, $560; 1987 5-h.p. Johnson, $340. Don, Ext. 3122.

WELLCRAFT 250 NOVA - VHF, CB, DF, temp. winless, very clean, 260-h.p. Merc, excel. cond., must sell, make offer. Jack, Ext. 7527.

ONAN - 4.5 kW marine gen., demand start, runs well, $475. Ron, Ext. 2214, 9:45 a.m. or 2:45 p.m.

Furnishings & Appliances

BLENDER - 12-spd., $20; automatic can opener, $9; 5-spd. hand mixer, $6; Black & Decker ultra oven, $50; more. Anne, 345-3579.

MINI BLINDS - 2, Bali, venetian, black, 30½"w x 50"l, orig. $72/ea. installed, make offer. Janet, Ext. 2345.

DINING ROOM - Heywood Wakefield, birch table, 6 chairs, hutch, glass top & pad, $800. 689-1539.

DINING ROOM - early Amer., 48" round table, 2 leaves, 4 chairs, $200; Pfatzgraff village dinnerware, service for 10, extras, $60. 654-2617.

DINETTE TABLE - no leaves, 4 Bruer chairs, like new, $150, will bring to Lab. J. Grogan, Ext. 4986.

FLOOR LAMP - $20; radio, $10; Hoover vacuum, $50. Tim, 744-2203.

HUTCH - 2-piece, pine, $50; GE elec. stove, $25; American Standard sink, cast iron, $35; Möen faucet, single control, $25. 744-2404.

REFRIGERATOR - Frigidaire, 17 cu. ft., top freezer, almond, $75. Ext. 5986.

TABLE - antique, tiger oak, w/5 matching chairs; oak dresser w/mirror. Bob, 821-1769 after 6 p.m.

TABLE - oak, octagonal table, w/4 hightop matching chairs, $60; single compartment dresser, $12; student desk. Morris, Ext. 4192.

TABLE - 48"x60", 4 chairs. 744-6962 eves.

VACUUM - Hoover Dimension 1000, 4 h.p., canister, power brush, all accessories, $40. Celeste, 878-4356.

WASHER - GE, full size, like new; GE 15.6 cu. ft. refrigerator, excel. cond. 289-7902.

Tools, House & Garden

COAL STOVE - Surdiac #713, 60k Btu, used 3 seasons, heats whole house, good cond., $300. Ron, Ext. 2214, call 9:45 a.m.

COAL STOVE - Franco Belge model 10-275R, good cond., 60,000 Btu/hr., heats 17,000 cu. ft. Tom, Ext. 5350.

GARDEN TRACTOR - Bolens, 10 h.p., snowblower, wheelbarrow, mower deck attach., w/rear tire chains, $200. Kevin, Ext. 4843 or 281-8031.

LAWN MOWER - Rio deluxe, w/bag, $35; motor, 1-h.p., 8.5 amp, $5; ice hockey skates, size 9½, $3/pair; 10 gallon fish tank, $4. Dave, Ext. 5460.

STORM DOORS - 31"x58", 25"x82, alum., $35; pressure cookers, 16 qt., $15; 4 qt., $7; golf club set, $40; golf cart, $12; high chair, $15. 878-6637.

Sports, Hobbies & Pets

CAMERA - Kodak Retina 111C, Compur shutter, F2 Schneider lens, mint cond., $100. Irv Meyer, Ext. 4309.

CAMERA - Pentax Super program, 28-200 100M, p/winder, flash, data back, soft case, access. bag, used 3 times, $250/all. Tom, Ext. 4048.

DRYSUIT - Poseidon, man's large, excel. cond., must sell, orig. $1,500, asking $500. 474-5715.

LASA PUPS - AKC, 11 wk. old, all shots, good coats. Ramona, 928-3088.

PIANO - Lester Betsy Ross, spinet, w/bench, excel. cond., $700. Tony, Ext. 3658 or 929-4903 after 6 p.m.

PIANO - Wurlitzer, 5 yr. old, full-size, cherry wood, w/bench, excel. cond., $1,200. Jack, Ext. 5611 or 5569.

TROMBONE - Bach 36B, 2-yr.-old, excel. cond., orig. $750, sell for $495. Richie, Ext. 2175 or 734-7342.

Audio, Video & Computer

TECKNICS POWER AMPS - #SE-A5MK2 150 w/ch, new, never opened, list $1,200, best offer. Al, Ext. 3992 or 331-1003 eves.

SPEAKERS - B&W 500, NAD 3240 PE amp., B&O Beogram RX2 turntable, $975; Aquarius computer, more, $55. Ext. 2679 or 472-6922.

CALCULATOR - Hewlett Packard 285, manuals, hardly used, $150. Steve, Ext. 2512 after 5:30 p.m.

CD PLAYER - Technics SLP-1 Silver, needs alignment, $25. Ext. 2492.

NINTENDO - w/4 games, $100. Gary, Ext. 3580.

TV - RCA Colortrack, 19", w/remote, cable ready, almost new, $200 neg. John, Ext. 4153.

Miscellaneous

JACKET - leather, new, nice looking, $200. Elhaj, Ext. 2512.

BABY'S CRIB - $15. Tim, Ext. 4367 or 924-6175.

HAIR DRYER - Conair Pro-Style, $8; mechanical scale, $10; stroller, $25. Anne, 345-3579.

ENGAGEMENT RING - ½-carat diamond solitaire, 14k yellow gold, appraised at $1,175, asking $800. Frank, Ext. 5120.

LEG SUPPORT - Velcro, $10; army blanket, $9; 12-cup coffee percolator, steel, $20; 8" shell owl, $20. Kathy, 744-2203.

SHELLS - coral, fossils, minerals, also rings. Whitey, Ext. 2913.

TICKETS - 2, to Los Angeles, Nov. 20, 4:30 p.m., non-stop, American Airlines, includes dinner, $150/ea. Ulysses, Ext. 7584.

WOMAN'S SHOES - brand-new, $3; sneaker, $5; belts, 50¢; watches, $5; cassettes, $1. Warren, Ext. 4939 or 924-7552.

Free

RABBIT - gray & white mini-lop, cage, bedding, etc., incl. Vicki, Ext. 5205 or 744-8765 after 6 p.m.

KITTEN - black & white, blue eyes, female, needs good home; parakeets, 1 blue, 1 green, w/cage, stand & extras, 366-1860.

Yard & Garage Sales

HAUPPAUGE - Oct. 20-21, 10-4 p.m., redecorating sale, furniture, paintings, more, 65 Kurt Lane. 234-1938.

HOLBROOK - 3-family, Sat., Oct. 20, toys to kitchenware, 249 Thunder Road. M. McGrath, Ext. 2815.

Car Pools

BOHEMIA-OAKDALE-SAYVILLE - need 1 more driver for car pool. Frank, Ext. 2314 or 567-5131.

QUEENS-NASSAU - van pool, now have 1 vacancy, pick-up points in Elmont & Southern State Pkwy. Roger, Ext. 5292.

Real Estate

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

For Rent

BELLPORT - 3-room apt., $650/mo. includes all utilities & cable. 286-8916 after 8 p.m.

BELLPORT VILLAGE SOUTH - 3-bdrm. house, furn., 2 baths, gar. winter rental, $900/mo. + util. 286-9389 or 286-0466.

CORAM - 7-rm. ranch, short-term, 17 min. to Lab, $600/mo. + util. 928-7154 after 7 p.m.

EAST MARION - 2-bdrm. cottage, 1½ baths, l/r, kit., din. area, mud porch ent., gas range, ref., 125'x125', $450/mo., 1 yr. lease, + 1 mo. sec. & util. 924-6751.

MATTITUCK - 1-bdrm. apt., quiet wooded area, near water, full bath, large l/r & closets, kitchenette, priv. ent., nonsmoker, $450/mo. pays all. Ext. 7657 or 298-9560.

MEFORD - 1-bdrm. apt., furn., kit., l/r, bath, priv. ent., ac, sundeck, nonsmoker, no pets, $700/mo. incl. all. + sec. 475-7250.

NORTH SHIRLEY - 1-bdrm. apt., priv. ent., quiet neighborhood, 5 mi. to Lab., $550/mo. + util & cable. Drue, Ext. 2290 or 286-8543.

PATCHOGUE VILLAGE - two 1-bdrm. apts., full bath & kitchen, ground floor, priv. ent., newly redone. 289-7902.

PORT JEFF VILLAGE - 1-bdrm. apt., l/r, kit., full bath, unfurnished, $700/mo. incl. all utilities + cable. Tallon, Ext. 4847 or 473-3987.

RIDGE - furn. studio apt., w/w, kitchen, bath, priv. ent. & priv. yard, 3 mi. from Lab., $475/mo. incl. all. 744-8632.

ROCKY POINT - 3 bdrm., eik, laundry, fenced yard, new carpets, paint, $800/mo, avail. by end of Oct. Don or Sue, 473-6570 after 7 p.m.

RONKONKOMA - Nob Hill, 2-bdrm. condo, LIE exit 58, tennis, pool, clubhouse, w/w, patio, all appl., ac, $900/mo. incl. heat. Bill, 878-6016.

SOUND BEACH - 2 bdrm., eik, bath, carpet, fenced yard, bsmt., laundry, $700/mo., avail. Nov. 1. Don or Sue, 473-6570 after 7 p.m.

SOUND BEACH - furn. studio apt., w/w, kitchen, full bath, priv. ent., no pets, nonsmoker, avail. 12/1, $475/mo. incl. all + cable. Bob, 821-1769 after 6 p.m.

SOUND BEACH - 4-rm. apt., fenced, cable, 2-car driveway, couples preferred, $650/mo. incl. util. Frank, 744-6014.

YAPHANK - Colonial Woods, 2-bdrm. condo, 1½ baths, full bsmt., new carpet & paint, hardwood floors, vacant. 924-3846.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, 2 baths, tennis, golf, beach, pool, $425/wk. Oct., $300/wk. Nov. & Dec. Guy, Ext. 3147.

BOQUERON, PR - 2-bdrm. condo, pools, tennis, snorkeling, beautiful beaches, $300/wk, $700/mo. Don or Sue, 473-6570 after 7 p.m..

For Sale

BELLPORT - 3-bdrm. ranch, eik, 1 bath, fp, gar., move-in cond., $180,000. 286-0466.

BRIGHTWATERS - 5 bdrm., 2½ baths, ¾ acre, 1 block from water, near villlage dock, 2-car detached gar., new gas boiler, $200,000, neg. John, Ext. 3762 or 929-5358.

BROOKHAVEN - 3-bdrm. Cape, cedar shake, l/r, d/r, eik, hot tub rm., full bsmt. w/shop, 2-car gar. w/shed, near boat ramp, low taxes, $210,000. Hurst, Ext. 3844.

BROOKHAVEN HAMLET - 4-bdrm. Cape Cod, 2 baths, d/r, l/r, eik, 2-car gar., 20' deck, patio, more, close to bay, ¾ acre, red. to $219,000. Ext. 7108 or 286-0271 eves, or Carl, 214-708-2058.

CALVERTON - 2-bdrm. townhouse, 2 stories, carpeting, 2 decks, 5 new appl., Andersen windows, fenced yard, 1½ baths, assum. mortg., $82,000. Steve, 369-9884.

CENTEREACH - 4-bdrm. hi-ranch, l/r, d/r, eik, 2 full baths, large fam. rm. w/fp, deck, pool, large fenced yard. $135,000. 698-8514.

CORAM - Strathmore East, 4-bdrm. ranch, 2 baths, cathedral l/r, 2-car gar., gas heat, fenced corner lot, $120,000. 928-7154 after 7 p.m.

EAST HAMPTON - East Hampton Mobile Home Village, 1982 Redmond mobile home, 14'x56', 2 bdrm., 1 bath, fam. park, all appl. shed, etc. John, 324-0220 after 6 p.m.

MASTIC - 3-bdrm. T-ranch, den, l/r, d/r, eik, w/skylight, deck, pool, fenced yard, new w/w, new windows, extras, 10 min. to Lab, priced to sell. Ext. 3046 or 2253.

MATTITUCK - 2-bdrm. ranch, l/r, d/r, porch, deck, gar. full bsmt., walk to beach, near marina, $162,000. Dave, Ext. 5460.

MIDDLE ISLAND - Coventry Manor, 3-bdrm. townhouse, 2 baths, kit., l/r, d/r, w/d, cac, 5 appl., pool, tennis, clubhouse, new carpet, ask. $99,000. Rosalie, Ext. 3160 or 289-5704 after 5 p.m.

MIDDLE ISLAND - Lake Pointe, 2 bdrm., l/r-d/r area, cac, gas heat, all appl., w/d, wood deck off master bdrm., pool, tennis & clubhouse, bsmt., extras, reduced, asking $70,000. Bob, 924-7316.

MIDDLE ISLAND - Shores at Lake Point, 2-bdrm. co-op, w/w, power rm., l/d area, pool, tennis, clubhouse, assum. $50,000 mortg., $5,000 cash, $500 closing cost. Chris, 345-3858.

MIDDLE ISLAND - 3-bdrm. condo, all appl., 2 full baths, ac, fenced patio, pool, tennis, $99,500 sale, or $850/mo. rent. Ext. 3922 or 878-2604 eves.

SHOREHAM - N25A, 4-bdrm., 2½ baths, 2-car gar., ⅓ acre, energy efficient, full fenced, close to schools, shopping, $165,000. Rich, 744-0960.

STONY BROOK - 3-bdrm. Colonial, l/r, d/r, eik, 2½ baths, 2½-car gar. on ⅓ wooded acre, 5 min. to SUNY, or rent. 751-8351.

PALM BAY, FL - near Melbourne, 2-bdrm. condo, 2 full baths, l/r, d/r, kit., w/d, pvt. screened patio, completely furn., heated pool, near beach, malls, $65,000. 698-8514 after 5 p.m.

MARCO ISLAND, FL - 1-week timeshare in Sunrise Bay Resort, 4 person occupancy, week starting on April 15, boat & dock use incl., $10,000, neg. F. Trapani, 744-6014.

GLEN OAKS, NY - large 2-bdrm. co-op, upstairs, great location, edge of Nassau County & Queens, walk to shopping, express bus to Manhattan, $89,900. Ext. 2679 or 472-6922.

Wanted

ALTO SAX - used, good cond., reasonable, for junior high school student. Dave, Ext. 4289.

BICYCLE - mountain or 12-spd. for 5'10" male teenager, used, good quality, good cond. Ext. 7657 or 298-9560.

BABY-SITTER - Manor Park area, days, for 12, 10 & 5 yr. olds. Barbara, 281-4208.

COMMODORE - C64 or C64C + disk. Morris, Ext. 4192.

HOUSEMATE - to share 4-bdrm. house in Ridge, 4 mi. from Lab,, $270/mo. + ¼ util. Mike,. Ext. 2671 or 924-2865.

LESBIANS & GAY MEN - feeling isolated? Our next meeting is Wed., Nov. 14, on site. 758-0930 after 5:30 p.m.

NORDICTRACK - good cond. Fred Horn, Ext. 3451.

PEOPLE TO JOIN TOASTMASTERS - join the fun, improve public speaking, Tues. 5:15 p.m., Brookhaven Center. Margaret, Ext. 3644.

STORAGE COVER - for small car, fabric, John, Ext. 7671 or 765-1299.

TENNIS BALLS - used, for training aids program, also, clean 5-gal. buckets. Gerry, Ext. 3751.

TOY TRUCKS - Hess, for Christmas, even if they need repair. George, 588-9459.

TUBED AUDIO COMPONENTS - working or not, by Marantz, ARC, Macintosh. Jim, Ext. 4584.

In Appreciation

I would like to thank everyone for their support, sympathy and generosity on the loss of my father. — Doreen Hallinan.

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