

## Name Change Indicates New Directions: Department of Advanced Technology

Since Monday, June 21, BNL's former Department of Nuclear Energy (DNE) has had a new name: the Department of Advanced Technology (DAT).

The name change reflects the fact that an area of traditional strength — nuclear energy work for the U.S. Nuclear Regulatory Commission — had lately been supplemented by increasing the department's initiatives in other areas.

Said BNL Director Nicholas Samios in announcing the new name, "Program areas such as Waste and Environment, and Safeguards, Safety and Arms Control have been expanding. While the nuclear energy work will remain a firm base, future directions for this Department are in various nonnuclear technology initiatives and innovations.

"After discussion within the Department," Samios added, "it became clear that it is appropriate, at this

time, to change the name of the Department to one which fits its technical foundations, keeps the existing sponsors, and describes well both what the Department is and will be."

Under its new name, the 270-member Department of Advanced Technology is still headed by Romney Duffey, who came to Brookhaven as DNE Chair in 1991. In advocating the change to DAT, Duffey pointed out that responding to programmatic trends and national needs is an important consideration for BNL.

With this in mind, Duffey said, "Building on our existing nuclear and technological experience, the department's principal directions for the future are in three areas: technology initiatives, waste and environment, and safeguards, safety and arms control (see photo on page 2). For our programs, the overall message is a decreasing purely nuclear component, with an increasing technolog-

ical diversity. Nevertheless, the nuclear niche will and must be retained."

As an historical note, today's DAT started out in 1948 as the Engineering Department. In 1949, this group merged with the Nuclear Reactor Project and became the Department of Reactor Science and Engineering, which, in 1952, separated into two departments: Reactor and Nuclear Engineering (NED).

NED evolved into the Department of Applied Science (DAS) in 1969, but that first incarnation of DAS split into two new departments in 1977: Nuclear Energy, and Energy and Environment (DEE). DEE became the present DAS in 1983, but DNE held its course for almost 16 years, until this week.

As Duffey observed, "This evolution has been one of the strong foundations of the Laboratory in applied programs."

## AGS Sets Record For Intensity

BNL's Alternating Gradient Synchrotron (AGS) set a new record for beam intensity, achieving  $2.241 \times 10^{13}$  protons per pulse (p/p) on the night of Tuesday, June 22.

This record, which meets the U.S. Department of Energy's milestone mark for 1993, was made possible by the AGS Booster, said AGS Accelerator Division Head Bill Weng. "With this intensity, the newly constructed booster has delivered on its first promise to the AGS high energy physics program," he said.

Now that this goal has been achieved, the accelerator's personnel will begin work toward their 1994 goal of  $4 \times 10^{13}$  p/p, which is expected to be achieved following a radio frequency upgrade this fall.

Additional details about attaining the new intensity record will appear in a future Bulletin.

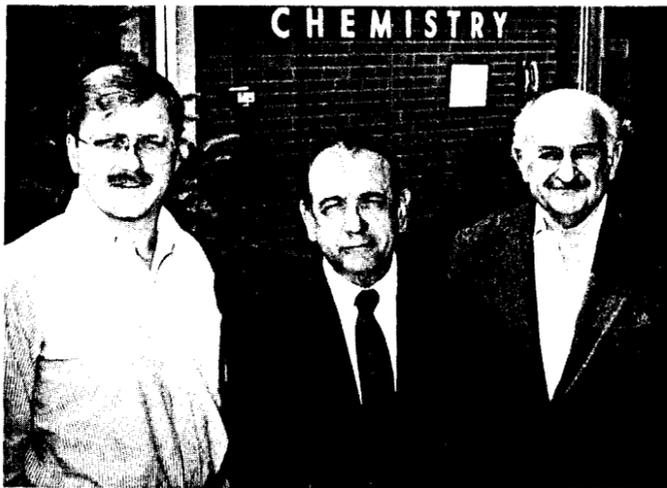
## New Chemistry Facility Designed For Watching Ultrafast Reactions

Scientists who study the intimate details of chemical reactions often deal in impossibly short timespans: Molecular fragments such as ions and electrons fly apart and come together in millionths, billionths or even trillionths of a second, causing ephemeral changes in light absorption, electrical conductivity or other properties that can be used to follow the rapid processes.

As technology has improved, chemists have constantly employed new techniques and equipment to follow faster and more complex reactions.

For the BNL Chemistry Department, the time has come to take the next stride forward in the study of radiation-induced reactions and applied radiation chemistry. Later this summer, ground behind the Chemistry Department, Bldg. 555, will be broken to receive an underground vault housing a machine capable of observing reactions one thousand times faster than present equipment can monitor.

The \$2.2-million reaction tracker is based on a newly developed type of accelerator called a radio frequency photocathode electron gun. This accelerator and its associated equip-



Progress on the Pulse Radiolysis Facility (PRF), which will be built at BNL for use in determining basic aspects of chemical reactions, was discussed during the June 3 meeting (see other photo). Shown here are PRF Project Manager James Wishart, BNL Chemistry Department; Robert Marianelli, Director, U.S. Department of Energy Division of Chemical Sciences; and Norman Sutin, Chairman, BNL Chemistry Department.

Photos on this page by Roger Stoutenburg

ment will constitute the core of a state-of-the-art Pulse Radiolysis Facility (PRF). It should be completed in the next 18 months.

### Reactions in Picoseconds

Pulse radiolysis is a kinetic technique for studying chemical reactions of highly energetic species, such as electrons, ions and free radicals. Most of these reactions take less than a second, and many are complete in a

few picoseconds, which are trillionths of a second.

The "pulse" in the facility's name refers to a pulse of electrons, which creates the reactive chemical species that are then followed by a variety of detection methods.

BNL chemists and their collaborators have been investigating reactions in this manner for 27 years, using the 2-million-electron-volt (MeV) Van de Graaff accelerator in Chemistry. But, as that machine turns 44 years old this year, researchers are looking to the new

facility to expand its capabilities.

The new PRF will do just that, said BNL Chemist James Wishart, PRF project manager. "This accelerator uses a laser synchronized with a radio frequency (rf) field," Wishart said, explaining that the laser and rf field are both directed at a cathode plate made of a photoemissive material, lanthanum hexaboride ( $LaB_6$ ).

"If the laser impinges upon the cathode at the correct rf phase, the emitted electrons will be accelerated by the rf field," Wishart said. "With sufficient rf power, the electrons can be accelerated to 10 MeV in approximately 30 centimeters."

After leaving the electron gun, the electrons will be steered to one of four target areas. By following the physical changes that result from the induced reactions, such as shifts in conductivity or light absorption, (continued on page 2)



## James Watson's Pegrarn Lectures: Personal and Profound

Before the second of his two Pegrarn Lectures, which drew a full house to Berkner Hall on June 17 and 18, Nobel laureate James Watson (second from right) gathered with: (from left) BNL Senior Physicist Hobie Kraner, Instrumentation Division, who chaired the Lectureship Committee that invited Watson to deliver the talks; BNL Director Nicholas Samios; and BNL Biology Department Chairman William Studier. Not shown is current Lectureship Chair, Senior Chemist Tom Koetzle, Chemistry Department.

One of the discoverers of the double helical structure of DNA, the carrier of genetic information, Watson shared the 1962 Nobel Prize in Physiology or Medicine with Francis Crick and Maurice Wilkins. Now the Director of the Cold Spring Harbor Laboratory, as the 22nd Pegrarn lecturer since 1959, Watson spoke of events "Beyond the Double Helix." In his first talk on "The Search for the Genetic Code," he shared many personal reminiscences, while in his second program he discussed the profound ethical implications of "The Human Genome Project." The lectures are available on videotape at the Research Library, Bldg. 477.

## Chemistry (cont'd)

researchers can discern fine details of chemical reaction mechanisms.

### Expanded Time Scale

Compared with the Van de Graaff, the new facility will dramatically expand the time scale. Instead of being limited only to studying species that live longer than one-millionth of a second, researchers will be able to take the life history of transient chemical species that live only a few trillionths of a second.

The new accelerator's characteristics will make it ideal for studying recombination reactions between ions and electrons in hydrocarbons, for example, and for deducing the pathways of reactions taking place at extremely high pressures or low temperatures.

Chemistry Department Chairman Norman Sutin and Wishart are both

delighted that the planned PRF is coming closer to becoming reality, since the project has been in the works since 1989. The accelerator will be built by an outside contractor with funding from the Chemical Sciences Division of the Department of Energy's Office of Basic Energy Sciences.

"This will be a state-of-the-art facility where some new and exciting science will be done," Sutin commented. "There's a lot of interest already expressed by people here and abroad."

Wishart concurred. "A number of different radiation chemistry groups in this country and overseas are very interested in the progress of our facility because they see it as a potentially very important tool for the future," he said, adding that the PRF will welcome industrial as well as academic and national laboratory researchers on a collaborative basis. — Kara Villamil



Roger Stoutenburgh

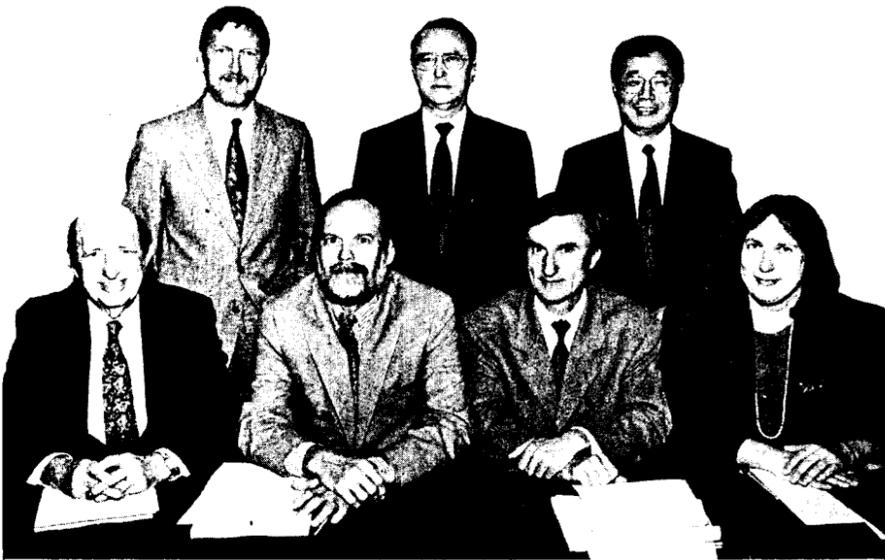
Representatives of Brookhaven and Los Alamos National Laboratories, the U.S. Department of Energy (DOE) and E.I. DuPont de Nemours, Inc. met at BNL on June 3 to discuss safety and environmental concerns shared by three sectors of the chemistry community: industry, national laboratories and government.

BNL chemistry and safety specialists briefed the visitors on safety in several areas, then led them on tours. Chemistry Department Chair Norman Sutin said the meeting opened an unprecedented dialogue.

"National labs and industry share common environmental, safety and health concerns and goals, and stand to benefit from sharing information," he said. "Joint research is being encouraged through technology transfer, and as doors get opened and exchanges of personnel occur more readily, common safety and other issues need to be addressed."

Pictured here are: (from left) Thaddeus Tomczak, DOE Environmental Safety & Health Coordinator; Jack Cole, DuPont Safety, Health & Environmental Affairs Manager; Robert Marianelli, Director, DOE Division of Chemical Sciences; Carol Davidson, DuPont Experimental Station Site Safety Engineer; BNL Senior Chemist Carol Creutz; and George Heindel, Los Alamos National Laboratory Safety Analyst.

## Safeguards Under Discussion



Roger Stoutenburgh

International Safeguards will be one area of strength for BNL's newly named Department of Advanced Technology (DAT), continuing the tradition begun when it was the Department of Nuclear Energy.

Last month, for example, the senior staff of the International Atomic Energy Agency's (IAEA) Department of Safeguards and representatives from four U.S. government agencies met at BNL with the staff of DAT's International Safeguards Project Office (ISPO). The four represented agencies were: the Department of Energy, the State Department, the Nuclear Regulatory Commission, and the Arms Control and Disarmament Agency.

New training programs, computer software and instrumentation are being developed for the IAEA's inspectors to help improve inspection and detection of atomic energy facilities worldwide. These innovations are being developed under the U.S. Program of Technical Assistance to IAEA Safeguards, which is managed by ISPO staff.

Pictured are: (standing, from left) Dirk Schriefer, Director, Operations B, IAEA; Demetrius Perricos, Director, Operations A, IAEA; Hiroshi Tani, Director, Information Treatment, IAEA; (seated, from left) Sy Baron, BNL Associate Director for Applied Programs; J. Christian Kessler, U.S. State Department, Technical Support Coordinating Committee; Vladimir Fortakov, Director, Development and Technical Support, IAEA; Ann Reisman, ISPO Head, and Head of BNL's International Projects Division.

## Holiday Notes

The Lab will be closed for the Independence Day holiday on Friday, July 2, and Monday, July 5. The following schedules will be in effect:

- **Brookhaven Bulletin** — There will be no Bulletin next week. The classified ad deadline for the Bulletin of Friday, July 9, is 4:30 p.m., on Wednesday, June 30.
- **Credit Union** — Teachers Federal Credit Union will be open as usual on Friday, but will be closed on Monday. The automatic teller machine in the foyer of Berkner Hall will be open throughout the long weekend.
- **Food Services** — At the Cafeteria, snack bar service will be offered from 9 a.m. to 2 p.m., Friday and Monday. The Brookhaven Center will be closed Friday through Sunday, and will reopen from 5 to 9 p.m. on Monday, July 5. The vended food service in Bldg. 912 will be in operation continuously.
- **Pool & Gym** — The pool and the gymnasium will be closed all weekend, Friday through Monday, and resume usual summer hours on Tuesday, July 6.
- **U.S. Post Office** — The Upton Post Office will close at noon on Friday, and will be closed all day on Monday.

## In Memoriam

The following retirees passed away recently:

**Marion Johnson** died on April 27, at the age of 71. He was hired on February 22, 1972, as a custodian with the Plant Engineering (PE) Division, and he retired as a PE building & grounds utility worker on September 26, 1986.

**Dominic DeAngelis** died on May 16; he was 61 years old. Hired on December 17, 1962, DeAngelis began as a heavy equipment mechanic operator in the Plant Engineering (PE) Division. He retired from PE as a technical associate I, on October 13, 1989. He was the husband of Marie DeAngelis of the Safety & Environmental Protection Division.

**Dominick DeGuiseppe** died at the age of 69 on June 19. Hired as a janitor in the Plant Engineering Division, DeGuiseppe began work at BNL on January 17, 1966. On August 31, 1978, when he left the Lab, he was a messenger in the Staff Services Division.

## Sharon Smith Receives Honorary Doctorate

Sharon Smith, Head of the Oceanographic and Atmospheric Sciences Division (OASD) in the Department of Applied Science, was awarded an honorary Doctor of Science degree at Long Island University's (LIU) Southampton Campus commencement ceremonies on Sunday, May 23.

The degree was presented by LIU President David J. Steinberg, and John R. Welker, Professor of Biology and Marine Science, read a citation in which he described Smith as a "scientific explorer extraordinaire."

"I am delighted to receive this honorary degree," said Smith. "Southampton College has one of the few undergraduate marine science programs in the country, and it attracts high-caliber students. I've worked with some of these students as interns within my division, and such partnerships have been mutually beneficial." OASD has strongly supported educational programs, including such internships, since its beginning in 1973.

This is the second honorary doctorate degree that Smith has received: The first was awarded to her from The Colorado College in 1989, where she did her undergraduate work.

She had earned her Ph.D. in zoology from Duke University in 1975, where she was a National Science Foundation Graduate Fellow. She was also a Fulbright Fellow at the University of Auckland, New Zealand.

Smith began her career at BNL in 1976 as a guest researcher and was hired as an assistant oceanographer in 1978. She was promoted to Oceanographer in 1983 and received tenure two years later. She later became Deputy Division Head of OASD, and, in 1991, she was appointed Head of the division. Smith's studies have taken her on 28 research cruises to such places as the Greenland Sea, the Gulf Stream and the Indian Ocean.

Smith specializes in the ecology of microscopic sea animals called zooplankton. The abundance of these animals is an important link in the earth's life-sustaining food chain.

"I've spent most of my career determining how the physical envi-



LONG ISLAND UNIVERSITY

Sharon Smith

ronment of zooplankton affects their lives," said Smith. "I've done that in areas like the Arctic, where there is a huge seasonal difference in sunlight, and the Arabian Sea or Peru, where current speeds are fast and the direction of water movement changes regularly."

She continued, "To measure the animals' biomass, we've used acoustic techniques, which cover larger spatial and temporal scales than nets. In combining measurements of animal processes with advanced biomass measurements, I am working to understand the role of the physical environment in shaping the community structure of zooplankton and the structure and functioning of the ecosystem."

## Safety Glasses

The on-site safety glasses office in Bldg. 88 will be closed on Wednesday, June 30. In case of emergency, call Pat Jencius, Ext. 2300.

## BERA Weekend In Connecticut

Travel with BERA to Mystic and New London, Connecticut, for the weekend of July 31 to August 1. For \$125 per person, double occupancy, the weekend package will include:

- Round-trip bus and ferry transportation from BNL
- One night deluxe accommodations at the Radisson Hotel in New London
- Full American breakfast on Sunday
- Foxwood Casino rebate
- Shuttle from hotel to casino
- Guided tours of Mystic Aquarium, Old Mystic Village, Mystic Seaport, U.S.S. Nautilus Museum, etc.

The bus will leave the Brookhaven Center on Saturday morning at 7 a.m. and return on Sunday evening by 10 p.m. Make reservations now, with a \$50 per person deposit, at the BERA Sales Office in Berkner Hall, weekdays, 9 a.m. to 1:30 p.m. Full payment is due by Friday, July 10.

For more information, call Carolann Zebrowski, Ext. 3347, or Kay Dellimore, Ext. 2873.

## AA Meetings

Next month, Alcoholics Anonymous (AA) meetings will be held on site after work on the following Mondays: July 12, 19 and 26. There will be no meeting on Monday, July 5, due to the holiday.

All employees, retirees, others working on site holding current BNL identification cards, and their dependents may attend. For location and times of meetings, call the Employee Assistance Program (EAP), Ext. 4567. Callers will not be asked to leave their names, and all calls are confidential. Meeting information may also be obtained by writing to P.O. Box 641, Upton, NY 11973.

## Equipment Demo

Representatives from the Pierce Chemical Co. will present their newest tools for research in Berkner Hall, Friday, July 9, from 11 a.m. to 2 p.m.

## Arrivals & Departures

### Arrivals

Chauncey A. Knapp.....Physics  
Mark A. Oros.....Computing & Comm.

### Departures

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

Christine Lisi.....Computing & Comm.

## Softball

### Standings as of June 18

League I		League II	
Phoubars	6-1	Cocoon	4-0
Up & Atom	4-3	Revised Edition	3-1
Blue Jays	3-4	Phase Out	2-1
Magnuts	3-4	Scram	2-1
Ravens	3-4	Dirty Sox	2-1
Six Pax	2-5	Older Butt Wiser	2-1
		Big Sticks	1-2
		Hy Tec	0-3
		Lights Out	0-3
		Titans	0-3
League IV		League V	
Snakebites	6-1	Worst to First	5-0
Sting Rays	5-0	Goodtimers	3-1
Personnelities	4-3	What's on 2nd	2-1
Simply Awesome	4-2	Lead Bottoms	1-1
Just 4 Fun	2-1	Varmints	2-2
Park Ave.	1-5	Source	1-2
Roustabouts	1-6	Wellheads	1-3
Molson Express	0-5	Skeleton Crew	0-5

League III standings not available.

## Get in the Swimathon '93 For the American Cancer Society

On Saturday, July 17, see how far you can swim in the Lab pool and how much money you can raise for the American Cancer Society (ACS), during the fourth annual BNL Swimathon sponsored by the Brookhaven Employees Recreation Association (BERA).

From 9 a.m. to 9 p.m. that day, swimmers may put in as many laps as they can — and take breaks between sets of laps. Since Swimathon '93 is not a race or an endurance test, all participants may go a good distance to raise money for a worthy cause by swimming discontinuously as much as they wish over those 12 hours.

The BNL Swimathon is open to BERA members, both individual and team swimmers. If enough swimmers from one department, division, group or club wish to sign up as a team, they are encouraged to do so.

In turn, each swimmer or team will be asked to sign up sponsors who will pledge money per lap. The total donation that each sponsor makes based on the number of laps swum will be a tax-deductible contribution to the ACS. Flat donations are also welcome and tax deductible.

In addition to swimmers and sponsors, Swimathon '93 needs volunteers to check in swimmers, count laps, serve the free food and refreshments, and keep the music playing.

For their in-the-water or on-land efforts, all participants will be awarded commemorative T-shirts, donated by the ACS.

To sign up to swim or to help during the BNL Swimathon, use the coupon below, or use the forms available at the pool, Bldg. 478; the BERA Sales Office, Berkner Hall; or the Recreation Office, Bldg. 185. Send completed registrations to M. Kay Dellimore, Recreation Supervisor, Bldg. 185. Sponsor sheets will then be sent to each registered swimmer.



## BNL Swimathon '93

Sponsored by the Brookhaven Employees Recreation Association to benefit the American Cancer Society

Name \_\_\_\_\_ Life No. \_\_\_\_\_

Department/Division \_\_\_\_\_ Bldg. \_\_\_\_\_

Ext. \_\_\_\_\_ Fax \_\_\_\_\_ Home tel. (optional) \_\_\_\_\_

Swimmers — I am signing up to swim laps as a(n)

individual  team member \_\_\_\_\_  
name of team

Helpers — I volunteer to help during the

morning  afternoon  evening

Return form to: M. Kay Dellimore, Recreation Supervisor, Bldg. 185.

## Hospitality News

The next Hospitality Committee get-together will be Tuesday, July 6, at 9:30 a.m., at the playground in the apartment area.

This informal meeting will let newcomers to the apartment area meet their neighbors, especially those who have lived there for a while. Spouses of Lab employees and guests are welcome; bring the children. Refreshments will be provided.

## IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, June 28, at 6 p.m. in the Knights of Columbus Hall, Railroad Avenue, Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports, the president's report, and election of officers.

## 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.

**SCIENTIFIC RECRUITMENT** - Candidates may apply directly to the department representative named.

**SCIENTIST/ENGINEER** - National Nuclear Data Center (NNDC). Seek candidate with doctorate in physics, nuclear chemistry or nuclear engineering, and extensive experience in low- or intermediate-energy nuclear physics in the measurement, computation, and/or evaluation of nuclear data and related nuclear physics research, to serve as Head of the NNDC. International peer recognition in the nuclear data field is essential. Contact: C. Lewis Snead, Department of Advanced Technology

**OPEN RECRUITMENT** - Opportunities for Laboratory employees and outside candidates.

**NS 0728. ADMINISTRATIVE POSITION** - Requires BA in hospitality or business administration or equivalent level of experience and training, and extensive knowledge and experience in event management, food and beverage, and conference-support operations within a hotel, commercial food service or large institutional environment. Familiarity with PC-based hotel and conference-management and scheduling systems desired; experience with facility management, repairs and renovations a plus. A valid driver's license and the ability to work extensive evening and weekend hours is required. Will be responsible for the supervision and coordination of conferences, and meeting and

## New Pool Season, Holiday Closing

A new three-month pool season will begin on Thursday, July 1, and run through Thursday, September 30.

Tickets may be purchased at the pool during open hours:

Monday through Friday	
11 a.m.-1:30 p.m.	employees only
1:30 p.m.-2 p.m.	reserved for speed swimming and training
3:30 p.m.-9 p.m.	employees, families and guests*

Saturday and Sunday	
1 p.m.-5 p.m.	employees, families and guests*

Daily Admissions	
Employee or family member	\$2.00
Guest*	\$3.00

Season Tickets (fees not prorated)	
Individual membership	\$40.00
Family membership	\$50.00

\*Guest ruling for all recreation facilities: One guest per employee permitted. Advance arrangements for additional guests, a maximum of five at any one time, must be made at the Recreation Office, Personnel Division, Bldg. 185. Guests must be accompanied by the employee.

The pool is closed on all Lab holidays.

## Software Demo

Mike Hall from WordPerfect Corporation will be in the CCD Seminar Room, Bldg. 515, on Thursday, July 8, from 9 to 11:30 a.m. His demonstration of the new version of WordPerfect for DOS and WordPerfect Office will be followed by a short Q&A session. For information and reservations, contact the Software Store, Ext. 4127.

## Cafeteria Menu

Monday, June 28	
Soup: Minestrone	.80/1.10
Entree: Sliced flank steak w/mushrooms	3.65
Fitness: Broccoli quiche	3.35
Carvery: Pastrami sandwich	2.95
Burger: California burger	2.95
Grill: Reuben platter	2.95
Fitness Salad: Tuna flake bowl	2.95
Taster's Bar: Mozzarella sticks (oz.)	.25

Tuesday, June 29	
Soup: Chicken rice	.80/1.10
Entree: Omelet display cooking	3.50
Fitness: Baked sole w/onion & tomato	3.75
Carvery: Hot roast beef sandwich au jus	2.95
Burger: Chili burger	2.50
Grill: BBQ pork sandwich	2.95
Fitness Salad: Chef's salad	2.95
Taster's Bar: Fried clams (oz.)	.25

Wednesday, June 30	
Soup: Tomato bouillon	.80/1.10
Entree: Baked manicotti w/veg.	3.35
Fitness: Baked mushroom-dijon chicken	3.45
Carvery: Baked Virginia ham sandwich	2.95
Burger: 8-oz. mushroom burger	3.35
Grill: Monte Cristo platter	2.95
Fitness Salad: Fresh fruit	2.95
Taster's Bar: Wing dings (oz.)	.25

Thursday, July 1	
Soup: Cream of celery	.80/1.10
Entree: Chicken Kiev w/rice	3.65
Fitness: Baked flounder Florentine	3.65
Carvery: Corned beef sandwich	2.95
Burger: Bacon cheeseburger deluxe	2.95
Grill: Chicken breast/Swiss on croissant	3.15
Fitness Salad: Oriental chicken	2.95
Taster's Bar: Wings of fire (oz.)	.25

Friday, July 2	
Snack bar service - 9 a.m. to 2 p.m.	

catering services. Staff Services Division.

**NS 0729. ADMINISTRATIVE POSITION** - Requires prior experience in hospitality/commercial food service or a large institutional environment. Will coordinate delivery and setup of equipment and catering services for conferences and meetings; share oversight of functions during workday and after hours; assist in facility safety and maintenance inspections; track and assure work completion and assist in the management of conference facility-evacuation drills. A valid driver's license and the ability to work extensive evening and weekend hours are required. Staff Services Division.

**NS 6149. PHYSICS ASSOCIATE POSITION** - Requires BS in physics or electrical engineering and experience in high power pulsed-power supplies, digital electronics, computer controls and programming, as well as laboratory test and measurement techniques. Excellent written and verbal communication skills necessary. Will operate and troubleshoot the AGS accelerator complex for the experimental physics program. Must be able to work rotating shifts. Alternating Gradient Synchrotron Department.

**NS 2721. ENGINEERING POSITION** - (term appointment) Requires BSEE or equivalent background and significant electrical experience for construction inspection. Knowledge of the

(continued on back page)

# BROOKHAVEN BULLETIN

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

ANITA COHEN, Editor  
MARSHA BELFORD, Assistant Editor

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

## Classified Ads (cont'd)

National Electrical Code, and the National Electrical Safety Code and their application to electrical design and installation required. The ability to review shop drawings related to high- and low-voltage distribution is required, as well as knowledge of relaying, grounding, fire alarm, lighting, telephone and emergency systems in utility, industrial and commercial settings. Knowledge of AutoCAD, Word and other computer application programs is desirable. Plant Engineering Division.

MK 2376. PROJECT MANAGER - Requires an advanced degree with demonstrated experience as a manager of major nuclear projects. Experience is required in the design and construction, decommissioning and/or retrofitting and upgrading of the safety of operating nuclear power plants. Must be a recognized expert in nuclear safety design. Familiarization with the systematic approach to training for nuclear power plant personnel and specific knowledge of Soviet-designed reactors desirable. Will be responsible for providing administrative oversight and day-to-day management of staff and operations for large, complex U.S. Government-funded projects. Project appointment. International Projects Division. Department of Advanced Technology.

### Motor Vehicles & Supplies

91 MERCURY TRACER LTS - 9k mi., 4-dr., a/t, excel. cond., 1991 *Road & Track* 10 best list, \$9,000. Eric, Ext. 5875.

91 PONTIAC GRAND AM LE - metallic gray, fully loaded, sports pkg., tinted windows, quad-4, alum. wheels, warr., mint, \$9,500. Mike, Ext. 5904.

90 HONDA CIVIC LX - 4-dr., 5-spd., ac, cruise, sunroof, p/l, am/fm cass., excel. cond., \$6,000. Maria, 878-2253.

89 BUICK SKYHAWK - white, ac, am/fm cass., sunroof, p/l, cruise, excel. cond., \$5,600. Jane, Ext. 4909.

88 VW JETTA - black, 5-spd., ac, am/fm cass., p/s, p/b, 100k mi., orig. owner, excel. cond., \$4,200 neg. Susan, Ext. 2828 or 758-8221.

88 CHRYSLER FIFTH AVENUE - 37k mi., loaded, mint cond., in/out, \$6,000. Ext. 5105 or 286-1615.

88 COLEMAN POP-UP CAMPER - sleeps 6, gas stove, water & elec. hookups, like new, asking \$2,200 neg. Jim, 878-4506.

88 IROC Z28 - loaded, 5.7, a/t, alarm, 59k mi., excel. cond. in/out, \$8,000. 399-6735.

87 CAMARO - V-6, a/t, ac, alarm, stereo, blue/black int., v.g. cond., \$3,500. 874-3796.

87 CHRYSLER LEBARON - 4-dr., ac, fully loaded, \$3,950. Ext. 2962 or 928-6541.

86 MITSUBISHI STARION - 52k mi., 5-spd. turbo, leather int., loaded, HiFi w/equalizer, sunroof, excel. cond. Irving, Ext. 2827.

86 MITSUBISHI MIRAGE - model L, 5-spd. h/b, am/fm cass., stereo, sunroof, eng. needs work, \$450 neg. 331-9849.

85 TOYOTA PICKUP - 4wd, runs well, high mileage, \$2,500. Al, 878-2577.

85 MALLARD TRAVEL TRAILER - 28', never on road, excel. cond., asking \$7,000. 744-2097.

83 WINNEBAGO CLASS A MOTOR HOME - 22', Michelin tires, 86k mi., many extras, good cond., \$9,950. Jud Davis, 473-0495.

81 DODGE VAN - custom, new tires, paint, good cond., asking \$1,800. Brett, 929-4753.

81 CADILLAC COUPE - excel. cond. in & out. Ted, 475-8566.

79 COLEMAN POP-UP TRAILER - sleeps 6, one broken cable, as is, best offer. Fern, Ext. 3969 or 878-6580.

79 CAMARO - runs well, very little rust, \$700. Ext. 5974.

78 DODGE DIPLOMAT - 318 V-8, 4-dr., a/t, 100+k mi., rebt. trans., new rad., needs rear-end work, \$150. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

73 MERCURY 8 MARQUIS - 460, 4-valve, 65k mi., very clean, \$800. Ext. 7181.

68 MUSTANG - \$2,000. 473-1456.

86 CAMARO - parts, Rob, Ext. 4661 or 395-4521.

UTILITY TRAILER - 8'x6', \$125. Pete, 924-6562.

TIRES - Bridgestone Potenza RE93, size 215-50 VR15, less than 1k mi., \$250/4. John, Ext. 7671.

TAILGATE - glass, for '84 full-size Bronco, non-rear defrost, \$75. 422-5095 after 7 p.m.

RIMS - 4, gold-plated, 14", 4-lug, locks, center cap, 2 tires, \$125. Dan, Ext. 4605.

TIRES - 2, BF Goodrich, belted, T/A P245/60 B14, mounted on mag rims, 5-lug, excel. cond., like new, \$200. Stephen, Ext. 4406.

TIRES - 4, truck, P235/75R15, w/Ford wheels, good cond. \$100. Brian, 878-4356.

TIRES - P205/75R14, good to excel. cond. Susan, Ext. 7647.

TIRES - 4, Goodyear, 875-16 1/2, 8-lug, white spoke wheels, like new. \$170. Rich, Ext. 4986.

### Boats & Marine Supplies

26' CHRIS CRAFT CRUISER - ib., dinette, head, galley, ready to go, many extras, good family boat. 475-3553.

25' CHRIS CRAFT CATALINA - 1981, sleeps 4, hot water, refrig., new canvas, all glass, immac., \$13,500. Artie, 475-2250, 8 a.m.-4 p.m.

23' PEARSON SAILBOAT - 1979, fin keel sloop, MJG, sleeps 4, galley, head, 7 1/2-h.p., elec. ob. excel. cond., John, Ext. 2788.

22' FORMULA - 1984, 260-h.p. Merc., 2-axle Shoreline trailer, all options, mint cond., \$13,200. Ken, 473-7460.

22' STAR-CLASS 6210 SAILBOAT - all glass, dbl. hull, 2 sets sails, sail cover, 3-h.p. Yamaha ob., trailer, meas. cert., \$3,500. Bernice, 472-1735.

18' BAJA - 115-h.p. Evinrude, very fast, custom paint job. Al, 878-2577.

18' HOBIE CAT SAILBOAT - 1990, hardly used, w/trailer, \$3,500. 473-1456.

12' SUMNER ISLANDS SAILBOAT - double hull, perfect cond., w/trailer. 288-5839.

OUTBOARD - 85-h.p. Chrysler, good for parts or rebuild, \$275. 422-5095 after 7 p.m.

RIMS - for trailer, 10" round, 6" wide, clean, no rust, \$15/2. Gary, Ext. 2011.

### Furnishings & Appliances

AIR CONDITIONER - Chrysler, 12k Btu, 220 line, 16"x24" opening, \$75; wall oven, elec., Westinghouse, 22"x27" opening, \$125. 422-5095 after 7 p.m.

BED - queen-size, mattress, boxspring, frame, 5 sets of sheets & pillowcases, good cond., \$100. Bryce, Ext. 3668.

CABINET - Hoosier, oak, restored, 69"hx43"wx27"d, good cond., \$475. Wink, 874-2762.

CRIB - Sears, oak, spring mattress, \$100. 821-6856.

DINING ROOM TABLE - and 8 chairs, dark pine, separate lazy Susan incl., excel. cond. 286-1214.

DRYER - Sears, large capacity, elec., many bells & whistles, \$75. Paul, Ext. 7644 or 929-4295.

FREEZER - Whirlpool, upright, white, \$200 neg.; microwave, Sharp Carousel II convection, \$200 neg., moving, must sell, Joe, 395-5813.

HEADBOARD - queen/king-size w/drawers, light bridge & mirror across top, oak finish, \$250. Mitch, Ext. 4212 or 928-7732.

RUG - 6'x9', \$20; bean bag chair, \$10; new child's swing, \$18; outdoor metal table, \$20; Hoover, \$45. Kathy, 744-2203.

RUGS - 8 1/2'x8', brown; 10'x15', green sculptured; 9'x12' brown tweed; recliner, mauve; glider, green/white; all best offer. Sharon, Ext. 3995.

STOVE - cast-iron, wood-burning, shop stove. 286-0682.

SOFA BED - queen-size, excel. cond., \$300 or best offer. Penny, Ext. 2625 or 467-8297.

TABLE - trestle, w/4 straight back & 2 armchairs, 2 leaves, \$150; washing machine, G.E., h.d., large cap., white, excel. cond., \$150. Nancy, Ext. 5744.

WASHER/DRYER - apt.-size., Frigidaire, laundry center model, A-1 cond. 744-1958.

WASHER/DRYER - Sears, apt.-size, 2 yrs. old, \$400. Mauro, 265-6542.

WATER BED - queen-size, w/wood headboard & heater, \$100 or best offer. Cindy, 874-3652.

### Sports, Hobbies & Pets

BIKE - Mongoose, light blue, new front & rear brakes, new tires & tubes, \$110. Brian, 878-4356.

CHOW CHOW - one adorable pup left, great temperament, red male, 8 wks., AKC, shots, vet checked, guaranteed, \$400. 399-3381.

DOLLS - collectible Barbies, 1960s-80s w/clothes. Call for price or leave message. 929-4904.

EXERCISE BIKE - Sears, dual action, good cond., \$50. Alex, Ext. 3723 or 341-1018.

EXERCISE BIKE - Sears, electronic readout, \$50. Nancy, Ext. 5744.

GIUITAR AMPLIFIERS - Marlboro 60 watt, 15" speaker, \$135; Kustom practice amp., like new, 15 watts, \$75; bass guitar, \$75. David, Ext. 5211.

GIUITAR AMP - GK250RL, \$200; wireless system Nady 201, \$225. Doug, Ext. 4661 or 434-7812.

ENTORCYCLE HELMET - w/face cover, new. Ext. 5080.

POOL SUPPLIES - Haywood, 1-h.p. pool pump & sand filter, solar pool cover. 16'x32', diving board, \$160. 331-1572.

ROLLER SKATES - white, size 7; Wurlitzer clarinet; Casio keyboard; 90210 group poster, unused, make offer. Joanne, 244-7284.

SKATES - in-line, man's size 7, woman's 9, great for beginner, \$30. Betsy, Ext. 5912 or 751-1621.

TELESCOPE - 3.5" Questar, case, lenses, tripod, \$1,200. 589-3608.

TREADMILL - Cadence 3350, like new, 6 mph, \$325. 422-5095 after 7 p.m.

### Tools, House & Garden

DEEP WELL PUMP - 3/4 h.p. Sta-Rite, 115/230 volt & 40 gal. fiberglass well mate tank, 10 mo. old, best offer. John, Ext. 4414.

LAWN TRACTOR - 11 h.p., 36" cut, riding, elec. start, headlights, owner's manual, \$500. 878-1617 after 6 p.m.

MAPLE TREES - Japanese red, \$10-\$45+; Sears riding tractor, 12 h.p., 4' deck, snow blower, battery start, tow trailer. Mauro, 265-6542.

PICNIC TABLE - and 2 benches, redwood, 6', excel. cond., \$40. Judy, Ext. 2590.

SHOWER STALL - 36" sq. w/cap, \$350; metal kitchen cabinets (for sink, above sink and above 30" range). Mitch, Ext. 4212 or 928-7732.

WINDOW - Andersen slide w/screen, 36"x36" vinyl, complete, like new, \$100; stainless exhaust fan, 30" Nutone, excel. cond., \$25. 475-7454 eves.

### Audio, Video & Computers

COMPUTER - AT compatible, high resol., color display, expanded memory coprocessor, wide carriage printer, \$700. Ext. 3922.

COMPUTER - Apple II GS, 40 MB hard drive, 3 1/2", 5 1/4" floppies, Appleworks and software for kids, \$750 or best offer. Peter, Ext. 2824 or 727-3218.

COMPUTER - Zenith 286E laptop, 1 meg, 20 megHD, backlit V6A, 1:44 FD, \$550 neg. Ed or Bob, 385-8075 after 5 p.m.

COMPUTER - IBM XT compatible, floppy/hard drives, turbo, mono monitor, Herc card, must sell, best offer. Gao, Ext. 7139/5603.

COMPUTER GAME - Nintendo Game Boy with 4 games, light, power pack. Chris, 821-1558.

TV - color, 25" Zenith console, \$50. Ron, Ext. 2525 or 286-0353 after 6 p.m.

TV - Quasar color 25" contemporary console, stereo, cable-ready, remote, excel. cond., \$200. Mary, 399-4857.

VIDEO PLAYER - VHS, \$40. 821-6856.

WORD PROCESSOR - Smith Corona PWP3800, like new, in original carton, \$200. Ron, Ext. 2525 or 286-0353.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.



### Miscellaneous

GOWN - teal blue, size 10, \$20, good cond. 744-5871.

METS TICKETS - four mezzanine, near 1st base, Sat. 6/26, 1:40 p.m., \$12 ea., Adult Jersey Day. Weeks, Ext. 2617.

### Free

BIRCH TREE - for removal, large, white, dead 1 year. Gerry, Ext. 4841.

BLOCKS - red patio, 15 1/2"x7 1/2"x2", #672; concrete blocks, 16"x7 1/2"x3 3/4", #150. Bill, 246-5968.

CAT - female, black tortoiseshell, declawed, spayed, needs a good home. Vic, 543-7674.

DOG - Border Collie mix, female, 2 yrs. old, to loving family, loves children, spayed, all shots. Ron, Ext. 2525 or 286-0353 after 6 p.m.

KITTENS - to good home, 9 weeks old, 1 black, 1 gray, affectionate. Lora, 758-5957.

### Yard & Garage Sales

CORAM - group sale, many items, TV, entertainment center, computer desk, keyboard, disk drive, much more, 698-1523 for directions.

E. MORICHES - multifamily, 6/26-27, 9 a.m.-3 p.m., 22 Memorial Blvd., off Montauk Hwy. 878-2425.

MEDFORD - 6/25-26, 41 Middle Island Ave., tools, antiques, military, radial arm saw, computer, CDs, tapes, records, bikes, books, boat.

### Car Pools

BOHEMIA-E. ISLIP-OAKDALE-SAYVILLE - need 1 more driver. Frank, Ext. 2314.

ELWOOD-E. NORTHPORT-COMMACK - on-time car pool seeks 2 more drivers. Paul, Ext. 4156.

STONY BROOK-SMITHAVEN MALL - near Rt. 347, Rt. 25 or Nicolls Road. Ext. 5080 or Ext. 4192.

### 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

BAITING HOLLOW - beach cottage, priv. beach, playground, fishing, sleeps 4, fully furn., kit., near Splish Splash, wineries, golf, BNL, \$400/wk, June-Oct. Mike, Ext. 7861 or 331-7812 eves.

BROOKHAVEN HAMLET - pre-Revolutionary cottage, hand-hewn beams, fp in d/r, greenhouse, 2 bdrm., 2 baths, gardens, \$1,100/mo. + util. & sec. Susan, Ext. 2888 or 286-0422 after 6 p.m.

CALVERTON - 3-bdrm. condo, 1 1/2 baths, cac, master bdrm., cathedral ceil., airtight stove, fp, backyard, \$950/mo. 722-3996, leave message.

CORAM - furn. rm., 10 min. from Lab, kit. and igp privileges, avail. 7/1, immaculate, \$325/mo. Kathi, Ext. 7462 before 2 p.m., 698-1971 after 3.

E. PATCHOGUE - 2 bdrm., eik, l/r, bath, priv. ent., \$525/mo. + util., no pets, avail. immed. 698-0576.

HOLBROOK - 3 rm., kit., bath, l/r, d/r, cable, \$850/mo. includes all. Armand, Ext. 3562.

MEDFORD - 1-bdrm. apt., kit., l/r, full bath, priv. ent., nonsmoker, no pets, single working couple, \$650/all + sec. 475-7250.

MEDFORD - 3 1/2-rm. bsmt. apt., priv. ent., nonsmoker, cable & all utilities, \$550/mo. + 1 mo. sec. 447-6528.

PATCHOGUE - 1 bdrm., l/r, eik, priv. ent., single working preferred, no pets, \$650/all, security. 289-0967 after 6 p.m.

NORTH PATCHOGUE - very secluded, small cottage, screened porch, fenced yard, gar., low maintenance, \$650/mo. + sec. 475-4199.

N. SHIRLEY - brand-new, huge 1-bdrm. apt., priv. ent., l/r, eik, w/w, working single, nonsmoker, no pets, \$650/mo. incl. all, 1 mo. sec. & 1 mo. rent. Pat, 281-5802.

PORT JEFF. - lg. sunny studo apt., pvt. bath, ent., all util., cable, no pets, nonsmoker. 331-4768.

PORT JEFFERSON STATION - 3-bdrm. ranch, l/r, eik, d/r, den, 2 baths, dbl. gar., w/d, 3VSD, \$1,300/mo. Jim, Ext. 4368 or 928-3371 eves.

PORT JEFFERSON STATION - 3 bdrm., l/r, eik, d/r, screened-in porch, all appl., d/w, w/d, fenced yard, \$950/mo. Rick, 698-5298.

RIDGE - 3-bdrm. ranch, 1 1/2 baths, coun. kit., w/w, all appl., fenced yard, 3 mi. to Lab, \$975/mo., option to buy. Carol, Ext. 2673 or 744-8632.

ROCKY POINT - 3-bdrm. Cape, 1 story, newly redecorated, nicely landscaped, eik, lg. l/r, w/d, \$850/mo. Donald, 473-6570.

ROCKY POINT - new, large 2-bdrm. apt., eik, l/r, priv. ent., quiet, carpeted, cable, \$590/mo. includes all. 744-5895 after 6 p.m.

SHIRLEY - summer rental, June-Sept., 5-rm. house, walk to bay and ocean, half hr. to Hamptons, \$5,500 neg. 281-4702 or 281-0360.

SHIRLEY - house to share, own bdrm. and l/r, \$350/single, \$450/double, includes all. Bob, Ext. 4661 or 395-4521.

SHOREHAM - new, furn./unfurn. 1-rm. apt., full bath, kit., priv. ent., immediate occup. 821-4318.

SHOREHAM VILLAGE - lovely 4-bdrm. home, 1 block from beach, tennis cts., country club, avail. July, summer rental. Skotheim, 744-3480.

WADING RIVER - cottage, newly renovated, kit.-l/r, full bath, loft, 2 small rms., skylight, deck, Sound view, no pets or smoking, \$650/mo. + util. Grace, Ext. 2529 or 286-0556 eves.

HILTON HEAD ISLAND, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, pool, beach, golf nearby, April-Sept., \$450/wk. for BNL employees & family members. Guy, Ext. 3147 or 689-5378.

LAKE GEORGE - lakefront cottage, swimming 15' from door, fishing, docking, fully equipped kit., sleeps 4-5, 4 hrs. from NYC. (518) 747-7821 or (518) 499-2581.

PLEASURE ISLAND, CAROLINA BEACH - ocean-front resort, furn., 2 bdrm., sleeps 4-6, tennis courts, pools, exercise rms., fishing, boating, weekly/daily rentals. 689-3146 eves.

MT. DESERT ISLAND, MAINE - lakefront, full furn., 1 rm. cottage w/sleeping loft, kitchenette, bath, fp, deck, on Echo Lake, Acadia Nat. Park, 6/26-10/16, \$450/wk. Bob, Ext. 2514.

MANHATTAN - newly renovated spacious studio in Chelsea area, 10th floor, kit., bath, ac, 24-hr. doorman, near NYU and FIT, \$850/mo. 751-5868.

### For Sale

BAYPORT - 3-bdrm. 2-story Col. on 1.2 acres, OHWH, d/r, 2 baths, lg. country kit., BBPSD, near schools, \$125,000. 472-3332.

BAYPORT - restored and modernized farmhouse. 472-1518.

BELLPORT VILLAGE - S. Howell's Pt. Rd., steps to golf & tennis, 2 bdrm., 2 bath, secluded, lots of decks, skylights, French doors, \$229,000. Susan, Ext. 2888 or 286-0422.

BROOKHAVEN HAMLET - 4-bdrm. Col., 2 1/2 bath, l/r, d/r, fam. rm. w/fp, eik, laundry rm., 2-car gar., full bsmt., lg. screen porch, beautiful priv. setting on cul-de-sac, \$229,000. Ext. 2881 or 286-3372.

BROOKHAVEN HAMLET - 3-bdrm. ranch, 2 baths, l/r w/fp, d/r, eik, laundry, full bsmt., city water, 2-car gar., security system, 0.7 acre wooded, cul-de-sac, \$215,000. 228-1290 eves.

CALVERTON - 2-bdrm. townhouse, 5 appl., carpeted, cac, fp, patio, upper deck. Ext. 3558.

CALVERTON - 3-bdrm. condo, 1 1/2 baths, cac, m/bdrm., cathedral ceiling, airtight stove + fp, backyard, \$90,000. 722-3996, leave message.

CENTER MORICHES - 4-bdrm. Col., 100x150, l/r w/fp, lg. d/r, eik, TV, laundry, 1 1/2 baths, 2-zone OHWH, oak floors, full bsmt., att. gar., town water, \$165,000. Marilyn, Ext. 2259 or 878-0939.

CORAM/BRETTON WOODS - 3-bdrm. townhouse, 2 1/2 baths, highly upgraded, tiptop cond., cac, golf, pools, tennis, bowling, \$140,000 neg. orig. owner. 732-0257.

E. SETAUKET - 4-bdrm. split, 2 1/2 baths, 3VSD, igp/igs, den, fin. bsmt., fully landscaped, \$172,000. 473-5376.

E. SETAUKET - 4-bdrm. Worthington Col. on 0.51 acre wooded land, 2 1/2 baths, 2-car. gar., bsmt., oak floors, new siding & roof, appl. incl., 3VSD. Ext. 2248 or 689-8548.

HOLBROOK - m/d, 6 rm., kit., bath, l/r, d/r, fenced-in yard, 2nd floor deck, walk to stores, \$140,000. 737-4082.

MANORVILLE - 3-4 bdrm. Col. w/contemp. flair, master suite whirlpool, fp, d/r, fam. rm., oak kit., igs/igp, 2 1/2 baths, bsmt., gar., satellite system, landscaped acre, \$169,900. 878-9239.

MASTIC - 3-bdrm. longline ranch, 1 bath, oil heat, 60x100 lot, close to Lab, ask. \$89,000. Terri, Ext. 2112.

MEDFORD - 3-bdrm. center hall Col., 1 1/2 baths, eik, den, l/r, d/r, gar., 0.4 acre fenced, \$119,990. 286-1571.