

## For the Record: BNL and the Local Groundwater

Earlier this week, Brookhaven was the focus of a number of news reports, all having to do with the Lab's effect on the groundwater. Brookhaven's Safety and Environmental Protection Division is charged with monitoring the impact of Brookhaven's activities on the environment. The Bulletin interviewed Robert Casey, head of the division, for answers to questions on the issue.

### What triggered the media interest?

An article in The New York Times discussed a draft report of a 1987 Department of Energy environmental survey of Brookhaven. DOE is conducting a nationwide survey of all its facilities, and the Brookhaven survey was part of that nationwide effort.

The draft report reviewed Brookhaven's own monitoring program and the cleanup of known sites of groundwater contamination, and incorporated the Lab's own findings. We had previously identified these sites and reported them as part of the Lab's Environmental Monitoring Program. No changes have occurred since the Laboratory's report in 1986. These findings were made public by the Lab at the time and were the subject of a Newsday article — very similar to the Times article — on June 24, 1986.



Robert Casey

### Why did the news reports talk about groundwater contamination?

Because of our 100 monitoring wells placed around the Lab site, we have detected several regions of contaminated groundwater that contain small amounts of radioactivity or chemicals. The most significant location was discovered in 1984 — a plume of chemicals located in the southeast quadrant of the Lab and traveling in a southerly direction.

Because of the levels and location, in 1986 we began a program to clean up the water before it travels beyond the site boundary. The cleanup program is working well and the levels have been reduced by more than 90 percent already. The program will continue until the levels are well below drinking water standards.

Tritium, a radioactive isotope of hydrogen, has been detected in the groundwater in the eastern and southeastern portions of the Lab. We are carefully watching the movement and concentration of tritium to determine what, if any, cleanup is required.

### Are nearby residents in danger?

No. Water samples taken from monitoring wells at the boundaries of Brookhaven show that radiation and chemical concentrations are well within all guidelines.

Furthermore, water samples taken by the Suffolk County Health Department from approximately 20 homes east and southeast of the Lab show traces of tritium at levels that are a small fraction of drinking water standards.

Only one home shows a level of chemicals slightly above the standard, but the Lab is not likely to be the source of that pollution.

### What caused the groundwater contamination?

In the case of the chemicals, most of the pollution has been caused by commonly used degreasing agents such as trichloroethane and trichloroethylene. We suspect that the organic plume that we are cleaning up comes from use of these solvents during earlier periods when their disposal was not regulated. In addition, these materials are commonly found in Long Island groundwater because of their extensive use as household cesspool cleaning agents.

The tritium comes primarily from the Lab's two landfills. In the Lab's early years, limited amounts of low-level radioactive waste were permitted to be disposed of in our landfills. We voluntarily stopped that practice in 1977.

### Is it safe to drink the Lab's water?

Yes. The Lab's drinking water is safe to drink. I want to emphasize that our drinking water wells are separate from the monitoring wells.

The wells are routinely monitored to assure that the drinking water meets all applicable state and federal drinking water requirements. I drink the water.

## Workshop at Summer Institute Sets Stage for Detector R&D

This week's workshop on detector technology for the proposed Relativistic Heavy Ion Collider (RHIC) rang down the curtain on the two-week Summer Institute on Relativistic Heavy Ions held at BNL.

An international group of some 130 physicists — including about a third of the 120 students who attended last week's summer school — met to "come up with a plan for detector research and development and to start writing proposals," said Physicist Thomas

Ludlam, chairman of the Summer Institute. "It's time to begin developing a coherent R&D program for RHIC detectors."

The workshop is expected to lay the groundwork for research and development efforts at many universities and laboratories, leading ultimately to final designs for RHIC experiments. The R&D work will be funded by the U.S. Department of Energy.

— Alexandra Biesada



Pictured at the opening session of the Summer Institute are leaders of groups working on detector techniques. From left: Thomas Ludlam, BNL, Institute Chairman; B. Shivakumar, Yale University; Hans Gutbrod, GSI, West Germany; Samuel Aronson, BNL; Shoji Nagamiya, Columbia University; Wilfred Cleland, University of Pittsburgh; and Michael Levine, BNL. Gutbrod chaired an international advisory panel, which helped to plan the Summer Institute.



Photos by Peter Horton

Veljko Radeka (front), head of BNL's Instrumentation Division, is among those being registered for the workshop by (left, front to back) Barbara Trojanowski, Patricia Tuttle, Colette Cadwell and Lori Bennett. Tuttle, overall coordinator, and Cadwell, Institute secretary, were deeply involved in many months of planning and coordination for the Institute. Bennett and Trojanowski provided the extra help needed during the hectic two-week workshop.

## Two New Beam Lines From One New Device

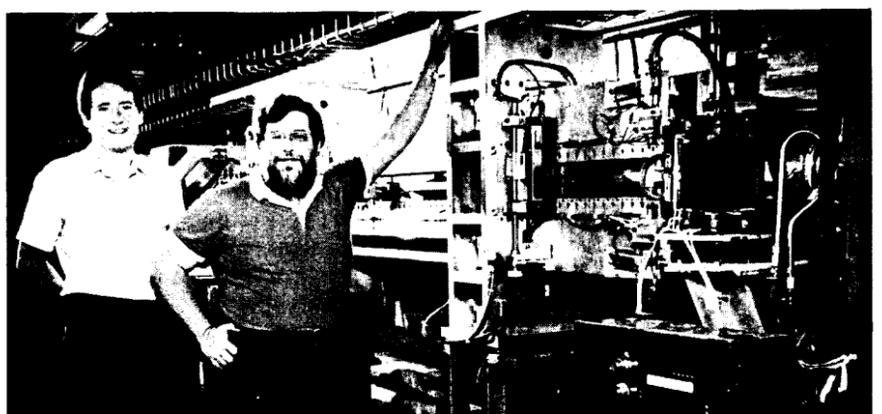
Using the light from the Soft X-Ray Undulator (SXU), two new beam lines are being built on the x-ray ring of the National Synchrotron Light Source (NSLS).

When fully commissioned this fall, the SXU will yield soft x-rays that are 10,000 times brighter than the soft x-rays created by the NSLS vacuum ultraviolet (VUV) ring and 1,000 times brighter than those generated by the x-ray ring.

This 70-pole magnetic device was inserted into the x-ray ring on June 27 and first gave light on July 10. It is the first of four insertion devices — one undulator and three wigglers — to be installed in the straight sections of the x-ray ring, as part of its Phase II upgrade, to be completed by the end of the year.

When commissioned, these devices will generate beams of photons more

(Continued on page 2)



Christopher Buckley (left) and Harvey Rarback standing by the Soft X-Ray Undulator.

Roger Stoutenburgh

## Technical Seminar: P-CAD Router

Howard Schutzmann, director of P-CAD's Boston R&D lab and project manager of the software engineering team that developed P-CAD router packages, will be speaking on "Printed Circuit Board Router Strategies, Philosophies and Applications," on Tuesday, July 26. He will also discuss P-CAD's use of expanded memory.

This technical training session, sponsored by Eberhard Engineering, will be held in the Physics Seminar Room from 10 a.m. to 4:30 p.m., and should be of interest to both experienced P-CAD users, as well as those who may use routers in the future. For more information, call Rich Carlsen, Ext. 4172.

## In Memoriam

It has been learned that **Ethel G. Skinner**, a former administrative assistant in the Reactor Division, died on June 21, at the age of 85.

Ethel Skinner had retired from BNL in June 1968, after a nearly 20-year career at the Lab that began in November 1948, as a clerk in Accounts Payable. She transferred to the Reactor in 1951, as a secretary.

She is survived by three daughters, Natalie Skinner of Darien, Connecticut; Suzanne Herold of Norwalk, Connecticut; and Mary Jane McCraney of Plant City, Florida; six grandchildren and one great-grandson. Donations may be made to the Alzheimer's Disease Association, 360 North Michigan Avenue, Chicago, Illinois 60601.

## Att: Bowlers

Applications for next season's bowling leagues are now available at the BERA Sales Office in Berkner Hall. Bowling starts on September 6 for Port Jeff and September 8 for Shirley. Substitutes are needed for all leagues, especially the mixed. If information is required, contact either Ed Sperry, Ext. 2697; Maria Apelskog, Ext. 3138; Maryann Reynolds, Ext. 5241; Fern Simes, Ext. 3969; or Charlie Bohnenblusch, Ext. 4758.

## New Device (cont'd)

intense than the synchrotron radiation produced by the x-ray ring's bending magnets.

As their name says, wigglers and undulators wiggle and undulate the electrons within the synchrotron ring. With each wiggle or undulation, electrons emit photons, and, as these photons are superimposed upon each other, the photon beam becomes more intense.

With energy ranging from 200 to 1,000 electron volts, the SXU's intense soft x-rays will be used for experiments at the end of two beam lines now under construction.

Beam line X1A will be divided into two stations, one for biological imaging and the other for photoemission microscopy experiments, the ideas for which came from Janos Kirz, State University of New York (SUNY) at Stony Brook. X1A is being built by the insertion device team headed by BNL's Associate Physicist Harvey Rarback and made up of scientists from BNL, IBM, Lawrence Berkeley Laboratory and SUNY at Stony Brook.

X1B, a spectroscopy beam line, is being developed by a team from BESSY, Exxon and the NSLS, and is led by Wolfgang Eberhardt, Exxon.

The SXU is what is called a hybrid magnet, because it is made of samarium-cobalt, a material with a naturally strong magnetic field, and because it has steel poles. It is a full-sized version of a 20-pole mini undulator that was temporarily installed in the x-ray ring before the Phase II shutdown began in March 1987. The mini undu-



Roger Stoutenburg

## Memories Of Camp Upton

Cataloging and restoring artifacts in the Camp Upton Collection at the Exhibit Center, has been the assignment for summer student Paul Frising.

A junior at Long Island University, Southampton College, Frising is majoring in history with a concentration in museum work. The Camp Upton Collection is his first curatorial charge, although he has worked on friends' collections and one of his own.

The Camp Upton Collection serves as a tribute to the men and women who came through the U.S. Army's Camp Upton, which occupied the BNL site during World Wars I and II.

Some 20,000 people each year visit the Collection, which thrives on donated memorabilia. Here, Frising is pictured holding a German ammunition pouch and trench shovel, donated by veterans who were at Camp Upton during World War II.

The Camp Upton Collection and the Exhibit Center can be seen during Laboratory tours, offered on Sundays through August 28, from 10 a.m. to 3 p.m. For more information call the Tour Program, Ext. 4049.

## Summer on Long Island

# Fire Island and the National Seashore

Between the Atlantic Ocean and Long Island's south shore lies the barrier beach known as Fire Island. It is named, some say, for the huge fires built there years ago to warn ships or lure them aground for looting, or for whalers to render blubber. Others recall a tax office clerk who mistakenly copied the original name of "Five Islands."

One of the most beautiful barrier beaches in the world, Fire Island is 32 miles long and ranges from one-half mile to less than 200 yards wide. Along this span, 17 separate communities have been created. Many of these are accessible by ferries, and some have public beaches. The Brookhaven Town beach at Davis Park, for example, can be reached by a ferry that leaves from Patchogue (call 475-1665 for information on schedules, fares and parking fees or permits).

A ferry from Patchogue (475-1665) can also take you to Watch Hill, which is part of the National Seashore, which accounts for about half of Fire Island's acreage. Watch Hill features a long stretch of guarded beach, a marina, a restaurant, snack and ice cream stands, a store, showers, campgrounds, picnic areas and nature trails.

Other special areas of the National Seashore include the Lighthouse Area, where the recently restored and reopened Fire Island Lighthouse stands, and Sailors Haven, which is accessible by ferry from Sayville. In addition to picnic areas, a marina, a store and food services, Sailors Haven

harbors the beginning of the self-guided trail through the magnificent Sunken Forest, so called because of its location behind the dunes.

In 1980, the seven-mile stretch of National Seashore from Smith Point West to Watch Hill was designated by Congress as wilderness, the only area in New York State to be so honored. With the exception of the boardwalk trail for the handicapped at Smith Point West, the wilderness is accessible only on foot, providing a view of the island as it must have looked to the Europeans who saw it first 400 years ago.

The Fire Island National Seashore (289-4810) also administers the William Floyd Estate in Mastic (399-2030), which was the home of this signer of the Declaration of Independence. You can take a free, guided tour of the 25-room house Wednesday through Sunday, 10 a.m. to 4 p.m. In that area, you can also visit the Manor of Saint George (475-0327), built about 1693, open Wednesday through Sunday, 9 a.m. to 5 p.m.

In that neighborhood too, you can take the Smith Point Bridge over to Fire Island to visit either the National Seashore's Smith Point West or Suffolk County's Smith Point Park, where parking costs \$3.50.

New York State also owns a piece of Fire Island, the westernmost section, Robert Moses State Park, accessible via the Robert Moses Causeway.

lator has been moved to the X13 straight section, to be used as a test bed for the NSLS Research & Development Group, headed by Jerome Hastings.

In addition to the SXU, three wigglers are to be inserted into the x-ray ring in 1988: a superconducting wiggler that will operate up to 5.5 teslas, for coronary angiography and materials science research; and two identical hybrid wigglers, which will be used for scattering studies.

The SXU is not the first undulator inserted into an NSLS ring. In the VUV ring, a 78-pole undulator, placed in the U5 straight section and commissioned in 1986, is used for spin-polarized photoemission experiments. Also, a 44-pole undulator, inserted in the U13 straight section in spring 1987, has been used as part of a transverse optical klystron experiment and will also be used as a high flux source of soft x-rays.

The idea for the SXU came from NSLS Deputy Chairman Samuel Krinsky. NSLS Associate Chairman

Hank Hsieh engineered the device, working with David Onsrud and John Scott.

Under NSLS Associate Chairman John Galayda, the magnetic measurements were performed by Lorraine Solomon, Edward McKenna and George Stenby. The software controlling the device was written by John Dabrowski, with NSLS Controls Group leader John Smith.

Beam line X1A was engineered by Rodolfo Alforque, Payman Mortazavi and Martin Woodle, with Adolph Almasy and Richard Wiseman. It was assembled by Anthony Lenhard and Gerard Van Derlaske. Roman Nawrocky designed its closed orbit feedback system. Christopher Buckley designed the beam line's monochrometer and is supervising the experiments to be performed. Meno Overhuizen is designing equipment for X1A experiments.

The components for the SXU and the beam lines were fabricated in the Central Shops Division.

— Marsha Belford

## Special Invitation To Summer Visitors

You're invited to enjoy a "New York City Experience," on Saturday, August 6. The modest cost of \$18 includes stops at three world-famous landmarks: the Statue of Liberty; South Street Seaport, for sightseeing and lunch; and the Intrepid Sea-Air-Space Museum, located on the converted aircraft carrier. Also included are transportation by luxury coach and a breakfast to be served on the bus. Lunch at the South Street Seaport will be at your own expense.

The bus will leave from the Brookhaven Center promptly at 7:30 a.m. You are advised to wear comfortable walking shoes and bring a sun hat or visor.

Bus seats are limited and will be allotted on a first-come, first-served basis. To reserve your seat, bring or mail your \$18 — cash only — to Renée Flack or Duane Hinds, Bldg. 185A, Ext. 3316.

## Scoop of the Week



The Scoop of the Week goes to Avril Woodhead, Technical Information, for her suggestion for the picture feature on Paul Frising and the Camp Upton Collection.

During the summer, the Bulletin is trading scoops for hot tips on Lab news and features. To enter the Scoop of the Week contest, phone or send your ideas to the Brookhaven Bulletin, Ext. 5053 or Bldg. 134. If you scoop the Bulletin's informed sources and a story based on your idea is published, you'll win an official certificate for soft-serve, frozen yogurt, redeemable anytime at the Cafeteria.

## Golf Tournaments

The fifth BGA golf tournament will be held on Tuesday, August 2, at the Middle Island Country Club. Starting times can be obtained by contacting Bob Sabatini, Ext. 3509. Priority for the first hour will go to completed foursomes with at least three BGA members.

The greens fees are \$16.50, riding carts are \$22 each and pull-cart rental is \$2. Tee-times are reserved for 10:30 a.m. through 12:30 p.m., so sign up as soon as you can; deadline for sign up is July 29.

The results of the four-man scramble at Timber Point were:

- First Place, 10 under, 62 — John Usher, Chang Park, See-Meng Wong, Joe Carbonaro
- Second Place, 7 under, 65 — Tom Romano, Rick Murgatroyd, Randy Church, Jim Garrison
- Third Place, 6 under, 66 — Bob Mills, Steve Heald, Rick Jackimowicz, Jim Yerry

Congratulations to the winners, especially to the repeating champions, on their excellent scores.

## Arrivals & Departures

### Arrivals

Kerry W. Botts ..... Plant Eng.

### Departures

This list includes all employees who have terminated from the Laboratory, including retirees:  
 Matthew J. D'Azzo ..... AGS  
 Peter M. Leahy Jr. .... AGS  
 Olga Perez ..... DNE



After four days, all of the 26 Division teams participating in the Team Safety program are batting 1000 — no strikeouts! And there is no truth to the rumor that several near misses occurred while trying to read the writing on the Team Safety buttons.

The Central Shops Division's (CSD) scoreboards have two "errors of the week": The corrections have been noted to reflect that (1) all department staff shop personnel are on a single team and (2) Team 5 combines the Welding, Sheet Metal and Cutting Shops. Apologies to CSD.

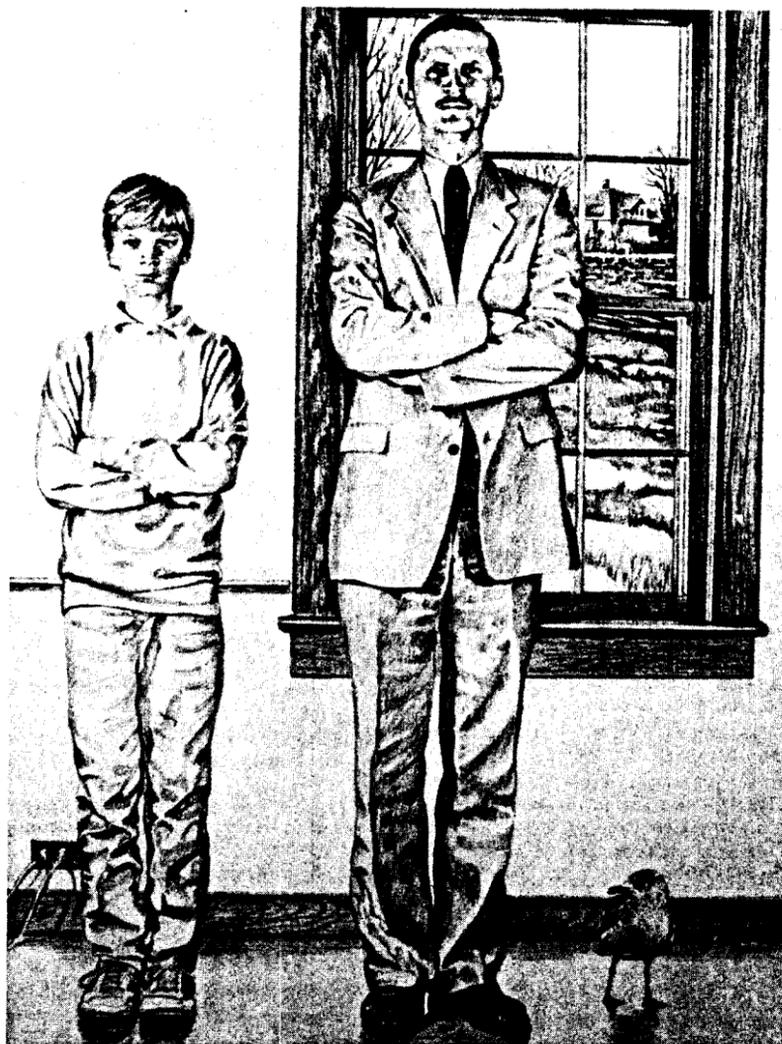
**Still Available:  
 Summer '88 T-Shirts  
 and Sweatshirts  
 Call Renée Flack, Ext. 3316**

## Cafeteria Menu

### Week of July 25

<b>Monday, July 25</b>	
Tomato rice soup	(cup) .75 (bowl) .95
Baby beef liver w/ sautéed onions & 1 veg.	2.95
Walnut chicken over rice	3.10
Baked fish Italian-style w/ 1 veg. (lite-weight)	2.95
Hot deli: French dip	(bread or roll) 2.85 (hero) 2.95
<b>Tuesday, July 26</b>	
Garden vegetable soup	(cup) .75 (bowl) .95
Beef, macaroni & tomatoes	2.90
Beef burgundy ragout over noodles	3.10
Chef's salad plate (lite-weight)	2.35
Hot deli: Monte Cristo	2.85
<b>Wednesday, July 27</b>	
Chicken mulligatawny	(cup) .75 (bowl) .95
Roast top round of beef w/ 1 veg.	3.10
Scalloped apples & sausage w/ 1 veg.	3.05
Fried seafood platter w/ french fries	3.10
Hot deli: Roast turkey	(bread or roll) 2.85 (hero) 2.95
<b>Thursday, July 28</b>	
Broccoli supreme soup	(cup) .75 (bowl) .95
Chicken patty Parmesan w/ spaghetti & 1 veg.	3.10
Spaghetti w/ meat sauce	2.90
Hot deli: BBQ pork sandwich	(hero) 2.95
<b>Friday, July 29</b>	
New England clam chowder	(cup) .75 (bowl) .95
Chopped beef steak w/ gravy & 1 veg.	3.10
Turkey vegetable Oriental over rice	2.95
Fillet of fish Florentine w/ 1 veg. (lite-weight)	2.95
Hot deli: Fried fish sandwich on a bun	2.85

## Soho Coming to BNL



This drawing — *Father, Son and Bird* by Carol Unger — is done in graphite on paper. It is one of almost 40 two- and three-dimensional artworks that will be displayed in "Soho Comes to BNL," an exhibit from the Pindar Gallery in Manhattan that the BERA Art Committee will bring to Berkner Hall the first week in August. The exhibit will open with a wine and cheese reception in Room B, on Monday, August 1, from 5 to 7 p.m. The show will continue August 2-5, from 11:30 a.m. to 1:30 p.m.

## Note to Diners

Beginning about 3 p.m. today, some portions of the Cafeteria will be unavailable for seating and service, while new carpeting is being laid in the entire dining and service areas. While this work continues through next week, only two cashier stations will be open.

Your cooperation is necessary. To avoid the noon to 12:30 p.m. rush, it is suggested that you eat earlier or later than usual, if possible.

## Camera Club

The upcoming Photo Exhibit will be the main topic at the next meeting of the Camera Club, to be held at the Recreation Building, on Thursday, July 28, at 5:30 p.m. Members are asked to bring in photos, snapshots and slides for photo clinic discussion. Non-members are also invited to attend.

For more information, contact Lew Jacobson, Ext. 5193, or Ripp Bowman, Ext. 4672.

## Classified Advertisements

### Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement

information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

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

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

**LABORATORY RECRUITMENT** - Opportunities for Laboratory employees only.

2900. ADMINISTRATIVE POSITION - Requires AAS or equivalent experience, extensive knowledge of Laboratory policies and procedures, demonstrated organizational abilities and experience in administrative functions. Under minimum supervision, will provide administrative support to various OSP programs. Excellent oral and written communication skills as well as familiarity with word processing/pc required. Office of Scientific Personnel.

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

2891. PROGRAMMING/ANALYST POSITION - Requires BS/MS in computer science, knowledge of VMS and preferably RSX operating systems, DEC hardware, DECNET and FORTRAN. Duties will involve interfacing custom data acquisition hardware to VAX and PDP computers. Some digital electronic design and maintenance will be required. Will manage VAX computers and develop code for Structural Biology Group. Biology Department.

2892. ENGINEERING POSITION - Requires BSME and experience in the application of nuclear codes and standards. Responsibilities include

specification preparation and procurement; installation and testing of reactor system modifications and repairs. Ability to obtain DOE "C" clearance necessary. Reactor Division.

2893. TECHNICAL POSITION - Requires AAS in mechanical technology or equivalent experience. Must have ability to read complex blueprints and assemble precision components. Knowledge of UHV procedures and practices desirable. (Reposting of Job #2682.) National Synchrotron Light Source Department.

2894. ASSISTANT AUDITING POSITION - Requires BS in accounting or business administration and a minimum of 1 years' relevant experience in public accounting or corporate audit. Will assist in the completion of financial, subcontract and management systems audits. Excellent analytical, written and oral communication skills are required. Associated Universities Incorporated.

2895. HEATING SERVICES SUPERVISOR - Requires BS in engineering and significant experience in a steam-generating facility. Prior supervisory experience is desirable. Will direct employees; including assignment, training, scheduling and grievance handling. Coordinates all work to assure continuous operation of facility. Maintains records and reporting documents. Supplies technical assistance as required. Plant Engineering Division.

### Motor Vehicles & Supplies

87 TRAVELMASTER MOTOR HOME - 24', fully contained, sleeps 6, rear bed, swivel chairs, extras, \$26,000. 929-8772.

86 MITSUBISHI 4x4 TRUCK - cap, camper insert, am/fm, fully equipped. Jack, Ext. 5565 or 399-3899.

86 MONTE CARLO SS - black w/gray int., every option incl., T-top, alarm, 5 yr. warr., immaculate, \$11,900. 758-4919.

85 DODGE COLT E - 4-spd., a/c, fm stereo cass., very clean, \$2,900. 878-6431, leave message.

85 TOYOTA COROLLA - hatchback, 4-dr., a/c, excel. cond., \$6,300. 286-0614.

84 MONTE CARLO - V-8, all power, cruise, tilt wheel, am/fm cass., a/c, mint. 289-4902.

84 OLDS CUTLASS - 8k mi., p/b, p/s, a/c, blue, 4-dr., garaged, rust-proofed, spoked wheels, like new, \$8,000. Frank, Ext. 3531 or 281-7578.

84 RENAULT ENCORE - a/t, new brakes, 70k mi., very good cond., \$2,700. Ana, Ext. 3110.

84 MONTE CARLO - a/c, p/b, p/s, excel. cond., asking \$5,500. John, Ext. 4446 or 467-8744.

84 NISSAN SENTRA DLX - a/t, a/c, p/s, am/fm cass., velour, 22k mi., front left end damaged, make offer. Ext. 2679 or 472-6922.

84 RX-7 GS - new Eagle GT +4 tires, summer only car, garaged, clean, moving, must sell. Ext. 4142 or 345-3915.

84 NISSAN STANZA - 4-dr., fully loaded body, good cond. mechanically, perfect, \$5,000. Allan, 694-7005 eves.

83 DODGE VAN - 6 cyl., 4-spd., p/s, mint cond., \$6,500. Ext. 3084 or 727-3830.

83 NISSAN PICKUP - 5-spd., new tires/brakes/shocks, runs well, \$2,400 firm. Chris, 472-0706 eves.

83 TOYOTA COROLLA - r/w drive, 6 cyl., a/t, 4-dr. sedan, p/b, a/c, 48k mi., excel. cond., \$4,000. Ext. 2944.

82 VW RABBIT - many new parts, good transportation, asking \$950 neg. 475-1608.

81 PONTIAC T-1000 - hatchback, a/c, a/t, am/fm, 72k mi., good cond., \$1,300. Don, Ext. 3511.

81 LINCOLN MARK VI SIGNATURE SERIES - black/gray, 2-dr., all options incl., moonroof & cb radio, \$5,900. Fred, Ext. 3259 or 473-8622.

80 CHEVY CITATION - all new tires, new muffler system, good cond., \$1,200. Ext. 4960 or 288-5576.

# BROOKHAVEN BULLETIN

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

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80 MERCEDES BENZ 240D - excel. cond., \$7,500. Ext. 4112 or 727-1782.

80 YAMAHA 850 MOTORCYCLE — full fairing, trunk, 6k mi., excel. cond., \$875. Ext. 2674 or 878-0175.

79 DODGE TROPHY MOTOR HOME - 23', low mileage, extras, good cond. 475-1836.

79 COUGAR XR-7 - fully loaded, \$1,000, must sell, make offer. Tony, 698-9274 after 6 p.m.

79 BUICK LE SABRE LTD - 4-dr., V-8, a/c, p/s, p/b, am/fm stereo, vinyl roof, \$1,250. Charlie, Ext. 2107.

78 DATSUN B210 GX - 5-spd., new tires, am/fm cass., good cond., \$695. Jim, Ext. 2432.

78 HONDA EXPRESS MODEL NC50 - easy riding, new batt., good cond., extras, \$140. Frank, Ext. 4584 or 277-0464.

78 HORIZON - new battery, generator, tires, etc., cheap. \$295. Ext. 3152.

77 CHEVY CAMARO - blue, a/t, p/s, a/c, am/fm cass., new trans., rebuilt 350 eng., 56k mi., many new parts, asking \$1,800, make offer. Ext. 5141.

76 MERCURY COUGER - body bashed, mechanically excel., 95k mi., \$550 firm. Scott, Ext. 5626.

75 PLYMOUTH VALIANT - many new parts, runs well. Susanna, Ext. 3959.

74 NOVA - 4-dr., 114k mi., good for its age, \$415. 286-0384.

72 OLDS CUTLASS SUPREME - new tires, good running cond. Wick, Ext. 7868 or 758-6773.

72 GREMLIN - needs work, runs; 1976 Toyota, needs work, runs, best offer. Paul, Ext. 4212.

71 FORD TORINO - 2-dr., a/t, p/s, p/b, 70k mi., \$500. Pete, Ext. 2498.

70 CHEVELLE - 6 cyl., p/s, 75k orig. mi., very reliable, \$900. Ext. 7686 or 878-0897.

64 DODGE DART GT - V-8, good for parts or restoration, best offer. 499-7912.

CAMPER - light-weight, sleeps 6, sink, stove, heater, cooler, extras, very good cond. 727-7741.

HONDA EXPRESS MOPED MODEL NC50 - easy riding, new batt., good cond., extras, \$130. Frank, Ext. 4584 or 277-0464.

TRUCK CAP - GMC, short bed, good cond., \$300. Rich, Ext. 4688.

TIRE - new, 721 Firestone 235/75R15, Eldo rim, \$75 neg. Ernie, 588-4987.

TIRES - 2, Dunlop Gold Seal Belted, P215/75B15, \$30, 2, Volvo rims, 15", \$20. Bill, 929-6442 after 6 p.m.

TIRE - Trail sport Y620, for Yamaha motorcycle, #318, 4-ply, brand-new, \$15. 924-3082.

TIRES - 4, 205/70-SR14, on Duster rims, less than 2k mi., \$150/all. Ext. 4695 or 744-1917.

87 NISSAN XE - Sport Coupe, p/s, p/b, a/t, stereo, 4 cyl., 28k mi., mint cond., \$8,700. 727-7015 after 5 p.m.

86 NISSAN PICKUP - 4WD, 5-spd., Blaupunkt stereo equalizer, alum. wheels, 286-1715 after 5 p.m.

86 BUICK SOMERSET - custom, 4 cyl., a/c, p/s, p/b, am/fm cass., best offer. Ginger, 472-6613 after 4 p.m.

86 KAWASAKI KLR 600 - on/off road, black/white, 1,400 mi., elec. start, extras, excel. cond., \$2,000. Bob, 874-2131.

85 CUTLASS SUPREME - V6, a/t, a/c, stereo, 2 dr., \$6,500. 289-8182.

85 SENTRA - a/t, p/s, new p/b, 54k mi., \$3,500. Lou Ann, 447-2259.

84 CHEVY PICKUP - 3/4-ton, 8' bed, a/c, a/t, H/D towing package. Bob, Ext. 4672/4904 or 929-4753.

84 HONDA ACCORD - a/c, 5-spd., m/t, 33k mi., garaged, mint, \$6,000. 289-0259.

84 CAMARO - V6, grey, full power, am/fm, a/c, louvers, excel., \$6,300. 696-2748.

84 LeSHARO WINNEBAGO MOTORHOME - 19', fully equipped, sleeps 4. 475-0509.

83 BUICK REGAL - a/c, p/s, p/w, am/fm, beige landau top, excel. cond., \$5,000 neg. Ext. 7238.

83 HONDA MINI BIKE - Urban Express, low miles, helmet, \$300 firm. 328-9868.

82 PLYMOUTH CHAMP - 80k mi., \$1,800; 81 Camaro, a/c, 81k mi., \$3,000. Ext. 2434 or 395-1387 eves.

82 MALIBU CLASSIC WAGON - p/s, p/b, a/c, a/t, am/fm, 66k mi., excel. cond., \$3,500. Ext. 4695 or 744-1917.

81 HONDA 750SS - 14k mi., 2 full-face helmets w/shields, mint, \$1,000 firm. 399-1671.

81 MAZDA GLC SPORT - 5-spd., moon roof, 2 dr., a/c, excel. cond., 90k mi., \$1,900. 399-3381.

81 EL CAMINO - sun roof, cover, a/c, am/fm cass., 59k mi., excel., must see, \$4,100. 924-3783.

80 FORD FAIRMONT - a/t, 4 cyl., 2 dr., p/s, am/fm stereo, good cond. in/out, \$825. Ext. 3164 or 744-5954.

80 CHEVETTE - 4 cyl., 4-spd., 70k mi., mint cond., \$1,000. 689-7963.

80 HONDA XR80 DIRT BIKE - good cond., \$200. 399-0534 eves.

80 JIMMY 350 - V8, p/s, p/b, p/w, sliding side windows, a/t, 4WD, 70k mi., \$5,500. Ext. 4030 or 878-2484.

80 HONDA CB900 MOTORCYCLE - custom, excel. cond., must see. Vinny, 395-1228 after 7 p.m.

79 CHEVETTE BUMPER - front & rear, good cond., \$50/pair. Joe, 929-8321.

79 OLDS DELTA - p/s, all new brakes, runs well, \$1,850. 924-2726.

79 CHEVY MONZA - V6, a/t, am/fm stereo, runs well. \$350. 467-7556.

78 AMC CJ-5 JEEP - good cond. mechanically, needs body work. Rich, Ext. 2043 or 435-4316.

78 CAMARO - 8 cyl., 305 eng., a/t, p/s, am/fm cass., excel. cond., \$2,700. 369-9329 after 5 p.m.

77 CADILLAC SEDAN DeVILLE - red vinyl roof, red leather int., all options, new tires, good cond., \$1,900. Jim, Ext. 4040 or 289-0876.

77 PEUGEOT 604 - needs some work, 83k mi., extras, must sell, \$1,250. Dave, 878-8541.

76 VOLVO 264 DL - new tires, muffler, brakes, runs well, 70k mi., asking \$1,200. Dave, Ext. 4396 or 288-6507.

76 WILDERNESS TRAVEL TRAILER - 18', fully self-contained, excel. cond., \$3,200. 588-8268 after 3 p.m.

75 BMW R-90 MOTORCYCLE - 900cc, good cond., \$1,700. Roger, Ext. 7518 or 878-8847.

74 CADILLAC COUPE DeVILLE - clean, runs well, a/t, a/c, p/s, p/b, 77k mi., \$900. 265-0117 eves.

71 MINI MOTOR HOME - Chevy 350 V8, a/t, p/s, cruise, sleeps 6, good cond. in/out, asking \$4,500. Ron, Ext. 2467 or 924-8644.

70 BARRACUDA - \$800; 4-spd. transmission, rear-end, window shell. 924-0960 after 5 p.m.

65 DODGE DART - slant-6 engine in good cond. Frank, Ext. 2314 or 567-5131.

56 VW MOTOR - reworked & running before storage, complete, \$125. John, Ext. 4761.

32 BUICK 50 SERIES - 4 dr., 8 cyl., tan & black, fenders, asking \$7,500. 472-2642.

TIRES - 2 regular, 1 snow, 78-13, low miles, \$50. 821-0794.

TIRES - 4, P235, General all-terrain, on Ford 15" rims, like new, \$260. Ken, Ext. 2350 or 588-2389.

OFF-ROAD LIGHTS - Baja Lasers, Dick Cepek 12V, 150 watts, sealed beam, black, 8 1/2", \$60/pair. Ext. 3803.

SLIDE-ON CAMPER - 9', newly remodeled, sink, stove, icebox, sleeps 4-6, \$1,000 neg. 447-1398, leave message.

### Boats & Marine Supplies

35' PACEMAKER - wood, in water, mint, twin 350 Chevy F.W., cooled, extras, \$11,000 neg. Dennis, Ext. 4028 or 298-8196.

27' BRISTOL SLOOP - inboard, diesel, 5 good sails, needs very little work, must sell. Kuper, 941-9423.

24' SEASKIFF - wood, inboard, full keel, set for offshore fishing, outriggers, cb. Al, Ext. 2419 or 281-3613.

21' ANGLER - cuddy cabin, w/1987 Mariners 135 h.p., new canvas, steering, compass, battery, excel. cond., \$8,500. 796-5661.

17' SPORT CRAFT - fiberglass, Mercury outboard, 115 h.p., 1981, trailer, good cond., asking \$2,400. 698-5701.

7' ENSIGN DINGY - fiberglass w/motor mount. Bill, 822-5144.

JOHNSON MOTOR - 35 h.p., old but runs, pull start, w/control box, \$30. Bob, Ext. 4672 or 929-4753.

MORSE TWIN ENGINE - single lever control & cables, \$65 neg. Ernie, 588-4987.

76 MERCURY ELECTRIC START - w/controls & cables, 50 h.p., \$600; Mercury 50 h.p., 1975, parts, \$125. 281-4337.

31' OWENS - 1956 mahogany double-plank hull, twin Flagship 136 h.p., sleeps 6, enclosed head, more, \$8,000 neg. Sue, Ext. 4931.

27' TARTAN - 9 sails, VHF-FM dt/rdf, autohelm compass, refinished top side, many extras. 669-9202 after 6 p.m.

24' BAYLINER - fly bridge, cabin, extras, mint, \$10,500. 289-0883.

21' CHARGER - 1987, w/cuddy, 200 h.p. I/O Mer-cruiser, 20 hours, \$13,000. Joe, Ext. 2836 or 475-8650.

18' COBIA BOWRIDER - fiberglass, 1980 75 h.p. Johnson, full canvas, trailer, winch, c.b., extras, \$3,500 neg. 475-7092.

15' OCEAN YACHT - 40 h.p. Johnson w/electric start, Teleflex steering, \$1,200 firm. Rob, 878-2702 eves.

RUBBER RAFT - 2-person, paddles, new, \$15; 5 antique outboard motors, 1940's. 924-3082.

SUNFISH SAILBOAT - very good cond., \$500. Carl, 286-0271.

OUTBOARD MOTOR - 7 1/2 h.p. Sears Gamefisher, excel., used once, \$250. 878-6637.

### Miscellaneous

KITCHEN TABLE - 42" round, butcher block, for-mica, 18" leaf, excel. cond. Pat, 744-8512 eves.

CEILING FIXTURE - w/3 lamps, \$25. Wick, Ext. 7868 or 758-6773.

INSULATED DOOR - 32"x79", like new. \$50. 727-3830.

DESK - secretarial, woodtone & black, excel. cond., exec. chairs, \$100. Ext. 7108.

COMPUTER — Macintosh SE, 20 mega internal hard drive, lots of software, Imagewriter II printer included. Ext. 4142 or 345-3915 eves.

HOME BAR - 7'x18" top, 42" high, fine for rec/fam-ily rm. 281-8685.

REFRIGERATOR - Admiral, 15 cu. ft., excel. cond., \$125; water pump, Sears, 1 h.p., 2 yr. old, \$100; bike helmet, child's, \$20; more. 878-4128.

MOVING SALE - contents of an apt. Greg, Ext. 4010.

COMPACT DISC PLAYER - Yamaha CD-30, new, never used, digital filter, programmable remote, \$160. Fung, Ext. 4504.

DINING ROOM TABLE - cherry; antique, round, oak table; pair club chairs; more, very reasonable. 475-3838.

WATERBED - queen size, wood & brass, orig. \$550, excel. cond., \$125. 395-3320 after 5 p.m.

REFRIGERATOR - G.E., excel. cond., \$200 or best offer. JoAnn, Ext. 4120 or 689-7963.

DISHWASHER - Kenmore Power Miser, multi-cycle, w/sanitizer, \$40; maple dining table, w/leaf, good cond., \$15. Ext. 2679 or 472-6922.

COMPUTER - TRS-80 Model II, Veritas CPM board, external drive, cables, lots of software, \$350. Jim, Ext. 7669.

MIMEOGRAPH MACHINE - electric, like new, w/fluid, cabinet, cover, mounting tray. Frank, Ext. 3120.

FISH TANKS - 30 gal., 20 gal., 10 gal., w/pumps, filters, 2 stands, \$125. Ext. 2214.

APPLIANCES/FURNITURE - large GE refrigerator, GE stove/microwave, sofa, 4 vanities w/sinks, water heaters, etc. Tom, Ext. 4084 or 878-1060.

LAWN MOWERS - 2, Briggs & Stratton, 18" cut, \$35; 20" cut, \$30. 878-2239.

BEDROOM SET - pine, triple dresser w/hutch, queen-sized bed, armoire, 2 night tables, orig. \$2,000, sell for \$950. 924-7677.

SOFA - 3-piece sectional, \$45; formica table w/4 chairs, \$35; porcelain table w/2 chairs, \$35, much more. 281-8943.

MIKE CONTROL - Audiovox MCB 5000, sell or trade for hand-held CB. Hank, 286-9659.

MATTRESS & BOX SPRING SETS - queen, \$80; full, \$70. Ext. 4985 or 331-8459.

TICKETS - Neil Young, Jones Beach, 8/27, 12th row-center, \$50/pair. Toni, Ext. 5257.

POOL LADDER - over-the-wall type, 1-year-old, \$40; 28' pool cover, \$75. George, 924-9656.

MITER SAW - \$50; shampooer-polisher, \$35. 289-0883.

FANS - 20" box-fan, 3 spd., \$10; 22" rev. thermo control, 3 spd. window fan, \$35. Ernie, 588-4987.

OAK HUTCH - \$395; Schwinn men's bicycle, \$75; 1920 antique tea table, \$75; oval parlor lamp table, mahogany, \$250. 924-3082.

MUSICAL EQUIPMENT - basses, amp, Portastudio, microphone, all excel. cond. 758-4919.

CEMENT MIXER - elec. motor, \$50; redwood tete-a-tete w/green plaid tectron cushions; Huffly Delux #7000 rowing machine. \$40. 298-4172.

COMPUTER - IBM PC Jr., 128 KB, w/color & soft-ware, \$250. 286-0031 eves.

MICROWAVE OVEN - w/full size storage cart, 1.5 cu. ft., digital display, auto & manual modes, like new, \$250. Jim, Ext. 7669.

REFRIGERATOR/FREEZER - GE, electric, 11.8 cu. ft., harvest gold, excel. cond., \$100. 289-2084.

LAWN MOWERS - Honda, 21", rear bagger, self-propelled, \$200; Scott 20" spreader, \$20. 589-3608.

PING PONG TABLE - heavy duty, good cond., best offer; Uniden portable phone, never used, best offer. Ext. 4120 or 689-7963.

SOFA BED - 2 cushions, gold, \$125; Wards micro-wave oven, cream, \$25. John, Ext. 4761.

UHF OUTDOOR ANTENNA - 7', aluminum, never used, \$15. Heather, Ext. 7793.

BIKE - 12", w/training wheels, like new, \$15. Jag, Ext. 5080.

POOL - 28', pump, filter, excel. cond., you take down. George, 924-9656.

WATERBED - queen-size, semi-waveless, new heater, best offer over \$150. 447-1398, leave message.

BEDROOM FURNITURE - 7-piece, Mediterranean, 2 mirrors, 2 end tables, triple dresser, chest, \$400. 744-0960.

IRRIGATION PIPE - 3"x540" w/sprinklers and fittings. 325-0193.

LOUNGE CHAIR & OTTOMAN - brown, \$75; upright Eureka vacuum w/attachments, \$40. Ellie, Ext. 3395 or 325-1537.

WINDOWS - 8'x4", casement, used, good cond., \$100; 46"x37" aluminum double hung, used, \$20. Brian, Ext. 5265 or 234-9487.

CENTER TABLE - glass top, decorative, \$50. Ramesh, Ext. 4805 or 924-8113.

POOL COVER - for 18' round pool, asking \$25. Bob, Ext. 7238.

IRRIGATION SYSTEM - 2 h.p., 220 volt, 180', 2" pipe, 6 headers, \$150. Walt, 298-8601.

WORD PROCESSOR - Brother, 1-year-old, w/3 1/2" disks, \$600. 286-0969 after 6:30 p.m., leave message.

GIRL'S BICYCLE - 20", blue, w/basket & bell, excel. cond. \$20. Cindy, 924-8557.

SOFA & CHAIR - good cond., sell together or separately. 475-0509.

BABY ITEMS - crib, mattress sheets, high chair, Hedstrom carriage, stroller, car seat, excel. cond., \$165/all. 744-3069.

WALL UNIT - for dining room, formal. 928-0466 or 689-6659 eves.

HUTCH - cherry wood, excel. cond., \$50; 9-piece formal dining room set. 924-0960.

ANTIQUE TV - RCA, collector's item, 45 & 78 separate turntables, storage, beautiful cabinetry, best offer. Ext. 4039.

GREENHOUSE - poly type, 100"x22", galv. steel frame, furnace, fan, sprinkler & hang. plant watering systems. Jim, Ext. 4040 or 289-0876.

DECO BUREAU - & chiffonobe, 1920's, \$100. 878-6637.

PLAYER PIANO - electrified artique w/2-day rolls, \$1,000; Optigon organ w/discs, \$100. 475-7974.

REDWOOD LOUNGE SET - w/cushions, 1 lounge, 2 chairs, 2 end tables, 1 coffee table, \$115. 727-0499.

### Free

OLD ENGLISH SHEEP DOG - 1-year-old, pedigree, needs large yard. 758-4150, leave message.

KITTENS - 3 black, 3 tiger color. Ext. 4120 or 689-7963.

### Lost & Found

LOST - Peugeot bike, 12-speed, light blue, white/silver handle bar tape, last seen at Berkner Hall, 7/14, reward. Ext. 4041.

FOUND - 2 pairs of sunglasses in cases, in NSLS control room. Lynette, Ext. 5136.

### Car Pools

BOHEMIA/OAKDALE - need 2 drivers for car pool. Frank, Ext. 2314.

PATCHOGUE - van pool, seat open. Ext. 4669, leave name & number.

PLAINVIEW - 4th driver needed. Elliott, Ext. 2495.

### 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

BAYPORT - large upstairs studio, furn., carpet, priv. ent., single non-smoker, no pets, refs., req. \$495/mo. incl. util., 1 mo. sec., ready July 15. 472-1734, 10 a.m.-8 p.m.

BAYSHORE - 2 rooms to rent, \$110 & \$85 per week, utilities incl., use of house & option to buy. 665-7782 after 6 p.m.

BELLPORT - 3 bdrm. contemporary, 2 baths, l/r, eik, den, fp, w/w, 7 skylights, garage, fence, beach rights, bike to village, no pets, non-smokers, \$1,050/mo. 286-2005 or 698-0576 after 12 p.m.

CALVERTON - mobile home w/option to buy, waterfront on Peconic River, adult park, 55 & over, 2 bdrms., 1 1/2 baths, must see, \$500. 369-2838.

HUNTINGTON - 1 bdrm., l/r, eik, bath, 2nd floor, priv., suitable couple, no pets, \$450/mo. + util. Walt, Ext. 2907/2913 or 698-0576.

MASTIC - 2 bdrm. house, furnished, monthly + util. 281-7230.

PORT JEFFERSON - Harbor Hills, 3 bdrm. house, 3 baths, a/c, beaches, spacious yard, fully furn., good schools, Sept.-Oct. for 1 year, \$950/mo. + util. 473-2297.

RIDGE - 4 bdrm. house to share, quiet neighbor-hood, priv. bath w/room, avail. July 11, \$365/mo. + 1/4 util. Jeff, Ext. 4407 or 924-2865.

SHIRLEY - 1 bdrm. apt., new, l/r, eik, full bath, w/w, priv. ent., working person or couple, \$575/mo. incl. util. 281-1840 eves.

SHOREHAM - 1 bdrm. apt., clean, large, kitchen, l/r, full bath, priv. ent., working person, avail. August 1, \$550/mo. all. 744-8659.

SHOREHAM - old estate on 2 landscaped acres, in-ground pool, fully furn., 5 bdrms., 2 baths, screened porch, avail. Sept. '88-June '89, \$900/mo. 747-0988 eves. 744-2275 wknds.

STONY BROOK - 3 bdrm., 1 1/2 bath Cape, large l/r w/tp, eik, screened porch, bsmt., 1-car gar., walk to RR & SUNY, avail. July 1