

Another Record For AGS Intensity

A record for beam intensity set at Brookhaven's Alternating Gradient Synchrotron (AGS) less than a year ago was smashed at around 6 p.m. on Sunday, June 5, when the AGS successfully accelerated a beam of 3×10^{13} protons per pulse (p/p), up from the 1993 record of 2.241×10^{13} p/p. The new Booster and the recently completed upgrade of the AGS radio frequency acceleration system helped AGS operators reach the record as a step toward their 1994 goal of 4×10^{13} p/p.

Last CRADA Call

If you have an idea for a multiyear collaborative research project with an industrial participant under a Cooperative Research and Development Agreement (CRADA) beginning in fiscal year 1995 (FY95), submit the proposal to the Office of Technology Transfer (OTT) by July 1. After that date, no further multiyear CRADAs for FY95 will be accepted.

The U.S. Department of Energy (DOE) has allocated approximately \$3 million to BNL for FY95 to support the first year of new one-to-three-year CRADA projects at \$100,000 to \$300,000 per year. BNL's nonfederal partners in CRADA projects are required to share the cost of the proposed research projects with contributions that equal or exceed the requested amount of DOE funding.

CRADA applicants may fax information to any of the following OTT contacts at Ext. 3729 or call: Margaret Bogosian, Ext. 7338, for CRADAs from the Biology, Chemistry or Medical Departments, or the Safety & Environmental Protection Division; Mike Furey, Ext. 2103, Departments of Advanced Technology or Applied Science, Computing & Communications or Reactor Divisions; David Langiulli, Ext. 5217, Alternating Gradient Synchrotron, National Synchrotron Light Source and Physics Departments; or RHIC Project or Instrumentation Division.

The diversity of ethnic backgrounds in BNL's employee and visitor population makes understanding cultural differences important. Toward that end, 75 department chairmen, division heads and equal opportunity representatives gathered recently to learn more about crosscultural and multiethnic issues and the philosophical aspects of cultural differences. Pausing during the May 2 training session were: (photo right, from left) Assistant to the Director for Equal Opportunity Glenn Jennings, who organized the program; session speaker Edwin Nichols, a clinical industrial psychologist from Nichols & Associates of Washington, D.C.; and Martin Blume, BNL Deputy Director.

BNL Lecture: Measuring CO₂ in the Oceans

Since the industrial revolution, worldwide use of fossil fuels has resulted in the release of carbon dioxide (CO₂) into the atmosphere at increasing rates. Yet only about 58 percent of this CO₂ accumulates in the atmosphere.

Most of the remaining CO₂ is believed to be taken up by the oceans. Since this situation may have important climatic implications, the U.S. Department of Energy (DOE) is sponsoring a global survey on inorganic carbon in the ocean, part of the international World Ocean Circulation Experiment.

Detecting changes in the oceans' CO₂ is complicated by a highly variable natural CO₂ background due to biological mobilization of CO₂ and calcium carbonate. Also, strong, varied currents at different depths make the oceans' CO₂ content very site specific, so no single research group can investigate this problem within a reasonable time. So, at present, six separate groups of scientists, including the team from BNL, are involved in different parts of the DOE survey, together with other groups around the world.

To explain BNL's role in this effort, Scientist Douglas Wallace of the Oceanographic & Atmospheric Science (OAS) Division of the Department of Applied Science (DAS) will deliver the 297th Brookhaven Lecture, "Detecting the Oceans' Uptake of Fossil-Fuel CO₂." Wallace, who is Technical Director for DOE's Global CO₂ Survey, will be introduced by DAS Scientist Creighton Wirick, OAS Division Head. The talk will begin at 4 p.m. on Wednesday, June 15, in Berkner Hall.

After a brief description of the processes to be considered in tracking the oceans' CO₂ uptake — for example, the exchange of surface and deep water — Wallace will define some of the approaches currently used. These include direct monitoring of CO₂ in the ocean and making comparative models calibrated with data from other, more readily traceable gases absorbed by the ocean.

As Wallace will relate, BNL uses both these approaches, collecting data at firsthand by taking research cruises such as a voyage on the *Meteor* in 1991 to survey carbon in the Atlantic — from Brazil to the Congo.

Using an instrument called the Coulometric Titration

Analyzer (CTA), the team measures the total amount of dissolved inorganic carbon in the seawater from samples at various depths taken every 30 nautical miles. The CTA, which was designed by DAS's Kenneth Johnson, has a remarkable accuracy of one part in 2,000, even at sea. These instruments are used by at least 21 other institutions.

Other instrumentation developed at BNL allows samples

to be measured for traces of Freons 11 and 12, and carbon tetrachloride. These relatively non-reactive and easily traced compounds give researchers a picture of ocean circulation over the past several decades — the more Freon in a sample, for example, the more recently that water was in contact with the atmosphere. From analyses of carbon tetrachloride, which has been added to the atmosphere since the early 1900s, ocean deep water off Brazil has been mapped backwards in time to nearer



Douglas Wallace

Photos on this page by Roger Stoutenburgh

the first appearance of fossil fuel CO₂ in the mid-1800s. Wallace will show that the increasing levels of these compounds can be modeled and compared to what is likely to be happening to CO₂.

Douglas Wallace received his B.Sc. in Environmental Science at the University of East Anglia, England, in 1978, and his Ph.D. in Chemical Oceanography at Dalhousie University, Canada, in 1985.

After a year on a Canadian government visiting postdoctoral fellowship at the Bedford Institute of Oceanography, Canada, in 1987, he joined DAS at BNL as an assistant scientist. In 1989, he became an associate scientist and received his present title of scientist in 1992. Also in 1992, he became an adjunct associate professor at the State University of New York at Stony Brook. Among his other experience, he has made 18 long voyages on research expeditions ranging through the Arctic, Pacific and Atlantic oceans.

After the lecture, all are invited to join the speaker for discussion and refreshments. To accompany him to a dinner at a restaurant off site, call Claire Lamberti, Ext. 3051.

Dealing With Diversity



PRC Consul General Visits

The Consul General of the People's Republic of China (PRC), Zhang Weichao (foreground, center), visited BNL on May 11, accompanied by other officials from the consulate in New York City (shown here), and spoke with such researchers as Ilan Ben-Zvi (right), at the Accelerator Test Facility of the Center for Accelerator Physics. The visiting party also met with Lab Director Nicholas Samios, National Synchrotron Light Source Chairman Denis McWhan, and Relativistic Heavy Ion Collider Project Head Satoshi Ozaki, as part of their day of learning more about BNL.

Coming Up

R. Michael Blease, Chief of the Clinical Gene Therapy Branch of the National Center for Human Genome Research at the National Institutes of Health, will deliver a Van Slyke Lecture on Tuesday, June 14, at 4 p.m., in Berkner Hall. His talk on "Gene Therapy: Prospects and Progress" is being organized by the Medical Department. Initiated in 1987, this lecture series honors the late Donald Van Slyke, a prominent medical researcher and BNL's first Assistant Director for Biology and Medicine.

Brookhaven Women in Science will host its 15th Annual Cocktail Party on Monday, June 20, from 5:15 to 7 p.m., on the patio of the Brookhaven Center or the North Room, in the event of rain. Hot and cold hors d'oeuvres will be served, and there will be a cash bar.

If reserved in advance, tickets are \$3 for students with ID and \$5 for others. At the door, tickets are \$5 for students, \$7 for others. To reserve, call Lisa Tranquada, Ext. 7731, or Pam Mansfield, Ext. 7286, by Wednesday, June 15.



It's Not Too Late To Give Blood

There's still time to get your pledge card in for the Blood Drive, to be held in the Brookhaven Center, June 15-17, between 10 a.m. and 3 p.m. Since every pint is needed, Blood Drive Chair Susan Foster also encourages retirees and the friends and family members of BNL employees to join in and donate blood.

Summer students and visitors are also welcome to give — contact your department or division blood captain (see the Brookhaven Bulletin of May 27). Pledge cards should be returned to Foster, Bldg. 185, as soon as possible to aid in scheduling appointments.



at June brides —

Please start giving rice and staples

To The



P.S. Thanks for The 2200 lbs. in May

Softball

Standings as of June 3

League I		League II	
Blue Jays	4-0	Just-4-Fun	3-0
Phoubars	3-2	Goodtimers	3-0
Six Pax	3-3	Snakebites	2-1
Up & Atom	2-2	Stingrays	2-1
Magnuts	2-4	Parke Ave	1-2
Cocoon	2-4	Personnelities	1-2
Ravens	0-3	Strike Force	0-3
		Simply Awesome	0-3
League III		League IV	
Titans	5-0	Varmints	2-1
Hytec	5-0	Well Heads	2-0
Surefire	5-0	What's On Second	2-0
Older Butt Wiser	4-0	Lead Bottoms	2-2
Big Sticks	3-1	Service America	1-2
Scram	3-2	Stray Cats	1-2
Lunatechs	3-2	Tandooris	1-2
Lightsouts	2-3	Skeleton Crew	1-3
Medical	2-3		
Phase Out	1-4		
Out Of Control	1-4		
Bombers	0-5		
Hammerheads	0-5		
The Feds	0-4		

Reminder: If results are not sent in by the winning team, then the team will not be credited for the win.

Play It Safe

The BERA Softball Committee points out that, over the past few weeks, players have sustained several injuries due to overzealous play. The Committee asks players to please remember that, although winning is better than losing, this is a recreational league, in which everyone can enjoy each other's company and engage in friendly competition. By keeping it that way, all can enjoy the game.

Ticked Off About Lyme Disease?

In New York State, Suffolk is one of nine counties in which Lyme disease is endemic. This is due to the fact that, wherever deer and woodland mice frequent, the deer tick, which transmits the bacterium that causes Lyme disease, can be found.

So, because of BNL's woodland setting, BNL employees and visitors who take advantage of the great outdoors on site or off must take precautions against being bitten by deer ticks.

When in tick-infested areas, precautions include: dressing in light-colored long-sleeved shirts and long pants, with bottoms tucked into socks or boots; using insect and tick repellents containing the chemical DEET; and performing daily tick checks.

Caused by the bacterial spirochete *Borelia burgdorferi*, Lyme disease is an illness that can produce severe and chronic arthritic, cardiac and neurological symptoms in humans and other animals. While the symptoms and their severity vary, Lyme disease in its initial stage is often characterized by flu-like symptoms and a bull's eye-shaped rash.

While adult ticks are most active in April and May and then again from October to November, deer-tick nymphs, which occur from May through June, are considered to be the primary transmitter of the Lyme disease spirochete because they are so

small and, hence, so difficult to detect.

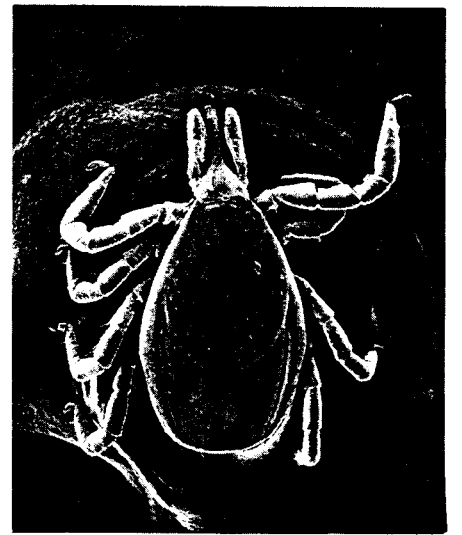
In the larval stage, deer ticks do not carry the spirochete until they take a blood meal from an infected host animal — such as a deer or woodland mouse. In the nymph stage, the tick is no bigger than a sesame seed and is black and red before feeding. After biting its victim and engorging itself with blood, the tick turns blue-black in color and grows to the size of a small pea. As adults, the females feed again.

Being bitten does not necessarily mean that a person is now infected, since it takes about 24 hours for a nymph and 36 hours for an adult tick to transmit the bacterium.

To remove a tick attached to the skin, the Cornell Cooperative Extension of Suffolk County recommends doing so immediately, by grasping the tick's mouth parts from the side with a fine-pointed tweezer. Avoid crushing the bloated abdomen of the tick because that could cause the tick to regurgitate and infect the host.

After the tick is removed, disinfect the wound with rubbing alcohol and place the tick in a small container of rubbing alcohol. Record the location of the bite and the date, if needed for future reference. The person should see a physician if the characteristic rash or other flu-like symptoms occur.

For a \$5 fee, the Cornell Cooperative Extension of Suffolk County will



Magnified 60 times, an adult tick of the species *Ixodes dammini*, which is responsible for transmitting Lyme disease.

identify any ticks brought to its Riverhead location. For information on this service, call 727-4216.

For more information about Lyme disease, call Cooperative Extension's Tele-CUE hotline, 369-2100 in Eastern Suffolk, and ask for message number 1084.

To receive three leaflets: *Lyme Disease, Integrated Pest Management for the Deer Tick*, and *Lyme Disease: A Health Problem on Long Island*, send a check or money order for \$1.75 to Cornell Cooperative Extension, attention: Deer Tick, 246 Griffing Avenue, Riverhead, NY 11901-3086.

Inside Info

Derek Lowenstein has been appointed to a third five-year term as Chairman of the Alternating Gradient Synchrotron (AGS) Department, effective this coming October 1.

In announcing the reappointment, Laboratory Director Nicholas Samios noted, "During Derek Lowenstein's tenure, the AGS Department has undertaken major tasks to maintain its leadership as one of the principal research facilities in this country. We are still facing rather difficult times, and Derek has assembled a talented staff to respond to these challenges. The successes of the Booster commissioning and the new intensity records at the AGS are true precursors for its vital role both in particle physics and as the injector for the Relativistic Heavy Ion Collider."

Derek Lowenstein joined the staff in 1973 as an assistant physicist with

the Experimental Planning and Support Division of what was then the Accelerator Department. He was promoted to Assistant Physicist in 1975 and to Physicist in 1977. That year as well, he became Head of his division. After receiving tenure in 1979, Lowenstein was made Deputy Chairman of his department in 1981, while still serving as division head.

He was named Senior Physicist in 1983 and accepted his first five-year appointment as AGS Department Chairman in 1984.

Physicist **John Millener**, Physics Department, was elected a Fellow of the American Physical Society (APS) at the November 1993 meeting of the society's council.

Millener was cited: "For significant contributions to understanding the structure of light nuclei, particularly non-normal parity states, and to

hypernuclear spectroscopy and the application of SU(3) symmetries."

Founded in 1899, the APS has approximately 44,000 members, of which 4,312 have been elected Fellows based on their contributions to the advancement of physics by their independent, original, published research or by some other special service to the cause of physics.

John Millener came to BNL in March 1976, as an assistant physicist. He was promoted to Associate Physicist and then to Physicist, in October 1978 and 1980, respectively, before receiving tenure in April 1982.

Toward developing a better theoretical understanding of the structure of the atomic nucleus, Millener worked with experimenters at BNL's Tandem Van de Graaff accelerator, before it became an injector for heavy ions into the Alternating Gradient Synchrotron, on studies of weak and electromagnetic interactions in nuclei. He collaborates with groups involved in inelastic scattering studies with nucleons, pions and electrons elsewhere. In his studies of hypernuclei, which are nuclei consisting of protons, neutrons and one or more strange particles, Millener collaborates with experimenters using intermediate-energy pion and kaon beams at the AGS and KEK in Japan.

Healthline Lecture

Preventing and Reversing Heart Disease

Heart disease is the leading cause of illness and death in the industrialized world, and conventional wisdom once was that if you were diagnosed with heart disease, then your fate was sealed. That is no longer true: Not only can much heart disease be prevented, but also it often can be reversed.

"Preventing and Reversing Heart Disease" will be discussed by physician Bryce Breitenstein, Head of BNL's Occupational Medicine Clinic (OMC), at the next Healthline lecture. Sponsored by the Health Promotion Program (HPP) of the OMC, the talk will take place on Tuesday, June 14, from noon to 1 p.m. in Berkner Hall. All are invited, and an audiotape and videotape of the lecture will be available in the Research Library afterwards.

After defining heart disease and reviewing its risk factors, Breitenstein will discuss the positive effect of certain habit changes, such as exercising regularly, eating less fat and reducing stress. He will then talk about some of the more radical, popular programs for reducing heart disease, such as those advocated by Nathan Pritikin and Dean Ornish, versus the more traditional, physician-directed approaches.

In addition to his BNL position, Bryce Breitenstein Jr., M.D., M.P.H., is a professor of clinical preventive medicine at the State University of New York at Stony Brook. He is certified by the American Board of Preventive Medicine in occupational medicine, the American Board of Internal Medicine, and the American Board of Medical Management.

To register for this lecture, complete and return the bottom portion of the Healthline flyer recently mailed to all employees to Health Promotion Specialist Mary Wood, Ext. 5923, by Monday, June 13.

Last Call for Disney

This is the last call for all BNLers who want to go to Disney World in Florida, September 28-October 4, on the BERA-sponsored group trip. A \$100 deposit will reserve seven days and six nights of fun within the Magic Kingdom, Epcot Center, Disney-MGM Studios and more, and includes USAir fare and accommodations at Disney's Dixie Landings Resort. For more information and the discounted, per-person rates, contact Kay Dellimore, Ext. 2873, or Andrea Dehler, Ext. 3347.

Note to Employees:

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

Raynis Scores First 800 Series in BNL Bowling History

What is five times harder to achieve in bowling than a perfect 300 game? Bowling what is called an 800 series, which is made up of the scores of three consecutive games of bowling.

Has anyone at the Lab ever bowled an 800 series?

For almost 47 years, the answer has been no. Bowling history began at BNL on November 3, 1947, when the Lab opened the 16 lanes in then Bldg. 476 that were left over from the site's days as the U.S. Army's Camp Upton. When that building was incorporated into Bldg. 902, and the lanes were closed, BNL bowlers took to the lanes in Patchogue, Port Jeff and Shirley.

It was at Port Jeff Bowl on April 5, 1994, that Lab bowling history was made, when Ray Raynis, a senior technical specialist in the Physics Department, bowled BNL's first recorded 800 series: In three consecutive games, he bowled a 289, 266 and a 258 — for an 813 scratch series.

"As they say in bowling, I was 'brain dead at the line,' which meant I had nothing else in my mind except that frame," he explains. Raynis, however, wishes he could have forgotten his own first name.

In his first game, Raynis, who that evening was bowling as captain of the Sparks team in the men's Red/Green league, rolled his teal Pro Rhino ball to ten strikes in a row before "lady luck" in the form of a woman behind the bowling lane's counter intervened

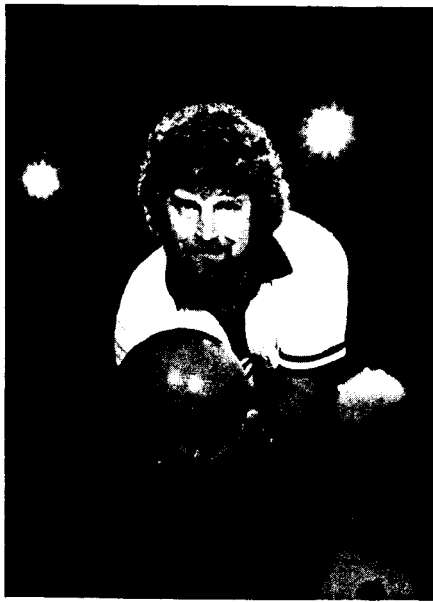
in his achieving a perfect 300.

Recalls Raynis, "The tenth frame is called the bonus frame: If you roll a strike the first time, then you get two extra balls. I had my second ball, which I was delivering when a woman made an announcement over the microphone: 'Will Ray please return to the front desk; Ray, please return to the front desk.' Announcements go on all the time at bowling alleys, and that never bothered me before. But, hearing my name at such a crucial moment, I lost my concentration as I released the ball, so it went Jersey."

The Ray being summoned over the microphone was the owner of the bowling alley, who apologized profusely after the fact for not keeping distractions to a minimum. The Ray on the lane managed to save the frame with the next best thing to knocking down all the pins at once with his first try, or a strike — by knocking the pins that remained standing with his second try, or a spare.

In the second game, Raynis bowled four strikes in a row, two spares and six more strikes for the 266. In the final game of the scratch series, Raynis rolled a strike, a spare, three strikes, a spare, five strikes and a nine, for the 258.

Not only has Raynis set a benchmark for himself and BNL bowling, but he has become one of the approximately 30,000 bowlers recognized since 1963 by the American Bowling



Ray Raynis

Congress (ABC) for bowling an 800 series — achieving ABC's most difficult challenge. For bowling the 800 series, he gets an ABC gold signet ring; for being 100 pins over his average, he earned a Century award watch.

"What a night — I couldn't believe it then, and I am just now comprehending what I did," says Raynis, who, before then, had an average of 181 and a high game of 279.

Raynis made bowling his primary sport only three years ago, after suffering a shoulder injury in hockey that made playing softball, his first love,

impossible. The former second baseman explains, "I couldn't throw the ball above my head any more, and I needed an exercise that stretches my shoulder out by weighing my arm down — so bowling was perfect."

In 1991, Raynis committed himself to the sport by bowling with the men on Tuesday nights and with the Lucky Strikes in BNL's Purple mixed league at Shirley on Thursday evenings.

As a result of bowling with the guys, Raynis met his two bowling mentors: Richard Larsen, now his Sunday morning practice partner, and Kenneth Asselta, Raynis's pre-game practice partner.

A long-time BNL bowler, "Rich is the best bowler at the Lab," says Raynis, "and I have found his instruction and pep talks invaluable. And Ken is very observant, so his comments on my technique are always very helpful."

With BNL's bowling season officially concluding tonight with the league's awards dinner, Raynis will continue to roll the ball, working on his concentration until September, when the season starts up again. One of his goals is a perfect 300 game, which was only recorded one time in BNL bowling history: On April 18, 1968, the late BNL retiree Mike Iarocci, who was the father of Michael Iarocci, a 200-average bowler in the RHIC Project, rolled BNL's first and so-far only 300. — Marsha Belford



The Pinheads needled their way to the top of the Red & Green League: (clockwise from top left) Bart Giuliano, Bob MacKinnon, Oscar Mirjah and Eric Larsen. Missing from picture is Jim Goode.

Photos on this page by Roger Stoutenburgh

Bowling Champions



The Bowling Stones rocked and rolled up to first place in the White League: (clockwise from top left) Bob Geib, Sue Cataldo, Kevin Carney and Diana Fisher.



The Lucky Strikes struck the right notes to shatter the competition in the Purple League: (from left) Ray Raynis, Paula Pozzoli, Maria Yanez and Tom Fleming.

Tennis Anyone?

Tennis Fun Evening

The BNL Tennis Committee will sponsor an evening of tennis fun on Thursday, June 16, starting at 5 p.m. (rain date, Friday, June 17). All those interested in playing tennis for the fun of it are invited to come down to the tennis courts after work that evening.

Players will be randomly matched

with different partners all evening. Soft drinks will be available courtside, so just bring your racket and a can of new tennis balls, and have fun.

To register, call Joe Carbonaro, Ext. 5139, or E-mail carbona1@bnl.gov, by 3 p.m., Wednesday, June 15. Given the success of previous tennis fun events, sign up as soon as possible. Registration may be accepted courtside before the event, if possible.

Tennis Tournament

Sign up now at the BERA Sales Office, Berkner Hall, for the 1994 annual tennis tournament, which will take place between July 16 and August 12. All Lab employees, their families, guests and summer visitors are invited to play. The cost is \$3 per person, and all those who want to compete must sign up before noon on Monday, July 11.

Tournament rules will be available at the Sales Office during the signup. The draw will be posted by Tuesday, July 12, at the Sales Office and by the courts. For more information, call Rudy Alforque, Ext. 4733; Steve Shapiro, Ext. 3822; or Om Singh, Ext. 5332.

Mountain & Canoe Club

The BNL Mountain and Canoe Club will canoe the Housatonic River in Connecticut, June 17-19. The eight-mile trip includes some light whitewater. Camping is available. For information, contact Sheryl Carey, Ext. 7716, or Al Kuehner, Ext. 4226.

Microcomputer Club

At the next meeting of the Microcomputer Club, on Thursday, June 16, at noon, in the Synder Seminar Room, Bldg. 911, Theresa Lockard of Apple Computers and Paul Cyr Falcon Microsystems will demonstrate the new Power Macintosh.

This new generation of Macintosh computers is based on the M601 RISC microprocessor produced by Motorola, IBM and Apple. During the demonstration, the new Mac's ability to run both current Mac-based programs, as well as DOS and Windows applications, will be evaluated. These new Macs can also run UNIX operating systems.

All are welcome. Bring your lunch and questions. For further details, call Irving Montanez, Ext. 2540.

Software Demo

Tim Babiak of SDRC will demonstrate the IDEAS Master Series Designer, in the CCD Seminar Room, Bldg. 515, on Tuesday, June 14, at 9:30 a.m. IDEAS is a 3-D modeling and analysis design tool, and Babiak will also show pre- and post-processing to ANSYS. For further information, call Chris Neuberger, Ext. 4160.

PSI Dinner

The Upton Chapter of Professional Secretaries International (PSI) invites all to its installation buffet dinner at 6 p.m. on Thursday, June 16, poolside at the Inn at Medford, Route 112. In addition to witnessing the installation of the Upton Chapter's officers for 1994-95, all are invited to socialize and network with PSI members.

The cost is \$15 for PSI members, \$25 for nonmembers. Reserve by sending your check, payable to Upton Chapter, PSI, to Susan Carlsen, Bldg. 197C, by June 10.

Cafeteria Menu

Monday, June 13	
Soup: Beef barley	.80/1.10
A la Carte: Kielbasa w/potato salad	3.65
Fitness: Vegetarian lasagna	3.35
Deli: Pastrami	2.95
Grill: Philly cheesesteak	2.95
Tuesday, June 14	
Soup: Chicken noodle	.80/1.10
A la Carte: Sausage & peppers calzone	3.35
Fitness: Macaroni & cheese	3.45
Deli: Virginia ham	2.95
Grill: Denver omelet	2.95
Wednesday, June 15	
Soup: Sausage & tortellini minestrone	.80/1.10
A la Carte: Cantonese spare ribs	4.25
Fitness: Spinach & feta quiche	3.45
Deli: Roast beef	2.95
Grill: Reuben	2.95
Thursday, June 16	
Soup: Senate bean	.80/1.10
A la Carte: Bonnie's chicken	3.65
Fitness: Eggplant parmesan	3.65
Deli: Corned beef	2.95
Grill: Ham & cheese	2.95
Friday, June 17	
Soup: New England clam chowder	.80/1.10
Display Cooking: Grilled Caesar chicken	4.65
Fitness: Pasta primavera	3.45
Deli: Roast turkey	2.95
Grill: Tuna melt	2.95

BROOKHAVEN BULLETIN

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Arrivals & Departures

Arrivals

David J. Burr Adv. Tech.
Jacek Capala Medical
Tanbir Haque RHIC

Departures

None

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.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

NS 2778. **ENGINEERING POSITION** - Requires a bachelor's degree in architecture or engineering, experience in the design, construction and management of large projects, demonstrated leadership qualities, knowledge of Laboratory policies and procedures, and excellent communication skills. PE license is preferred. Responsibilities include planning and coordinating major building and utility construction projects, acting as liaison with contract A/E firms, and directing the activities of a group of architects and engineers within the Division. Plant Engineering Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD 2875. **DESIGN POSITION** - Requires an AAS or equivalent experience and extensive experience in the drafting and/or design of mechanical/structural equipment. Knowledge of engineering fundamentals, machining and fabrication procedures, familiarity with ANSI Y14.5-1982 (R-1988) and AutoCAD Release 12 proficiency is also required; nuclear experience highly desirable. Reactor Division.

DD 2748. **TECHNICAL POSITION** - (term appointment) Requires a bachelor's degree or equivalent experience and a thorough knowledge of application engineering, programming, installation and start-up of the Barber-Colman Network 8000 control system, including GCMs, LCMs and Microflos. Responsibilities will include generating drawings for all Barber-Colman NW8000 programs using AutoBlock, including IBM PC set up, installation and troubleshooting. Plant Engineering Division.

NS 2767. **CARPENTER** - (temporary) Requires substantial commercial/industrial experience. Under minimum supervision will lay out, construct, modify and maintain buildings and component parts from construction drawings, rough sketches or verbal instructions. Will work with wood, wood substitutes and combination materials and flooring, roofing and wall materials. Plant Engineering Division.

Motor Vehicles & Supplies

93 HONDA SONATA - black, V-6, anti-lock brakes, p/sunroof, anti-theft stereo, tinted windows, 4 yrs. left on ext. warr. Ext. 2459 or 287-3262 after 5 p.m.

90 TOYOTA TERCEL EZ - 4-spd., am/fm cass., 107k mi., \$1,800. Mike, Ext. 7410.

88 ISUZU TROOPER - 4wd, 4-dr., ac, 5-spd., tinted windows, am/fm cass., low mi., mint cond., \$6,500. 722-3905.

88 PONTIAC GRAND AM - charcoal gray, 4-cyl., 110k mi., \$3,500; '86 Olds Custom Cruiser wagon, 4-cyl., 7-pass., extras, 90k mi., \$2,200. George, Ext. 2296.

87 CHRYSLER LE BARON - 4-dr., a/t, 86k mi., p/s, p/b, ac, cruise, am/fm stereo, new tires, excel. cond., \$2,900. Takao, 341-1012.

87 TOYOTA SUPRA - loaded, excel. cond., best offer. Ext. 3695, leave message.

86 CHEVY MONTE CARLO - Super Sport, T-top, new brakes & tires, asking \$3,900. Pete, Ext. 5105 or 737-9614 after 6 p.m.

85 CHRYSLER LASER - strip for parts, new windshield, 4 good tires, best offer. 289-9193.

85 HONDA PRELUDE - 5-spd., orig. owner, runs well, \$2,600. Sue, Ext. 2888 or 286-1474 after 6 p.m.

84 BUICK ELECTRA ESTATE WAGON - full power, clean in & out, well maint., \$2,399. John, 924-9071.

83 CAMARO Z28 - V-8, a/t, Z28 alum. rims, needs carb. & body work, light rear hit, have parts to fix, \$650. 924-8213.

83 TOYOTA COROLLA WAGON - red/tan, 93k mi., 5-spd., ac, am/fm cass., roof rack, new exhaust, \$1,595 neg. Ext. 7014 or 281-8274.

82 NISSAN SENTRA - 4-dr., high mi., runs well, \$700. Al, 929-0351.

81 AUDI - runs well, very tight motor, must see & drive, asking \$1,850; '86 Nissan Stanza motor, will pick up. Chas, Ext. 5462 or 288-2080.

80 MERCURY ZEPHYR - good tires, radio cass., runs well, \$700. Claudia, Ext. 3082.

69 MUSTANG - convertible, 6-cyl., 3-spd., recent top, clutch, tires, brakes, paint & int., am/fm cass., 84k orig. mi., \$6,400. Tirre, Ext. 3288 or 281-0360 after 6 p.m.

50 PLYMOUTH SUPER DELUXE - 2-dr., m/t, 6-cyl., good cond., spare trans., prime for restoration, \$1,000. Ernie, Ext. 4095.

DASH PAD - for Ford van, new, in box, red, \$25. Bart, 924-6761.

PARTS - for BMW 318i, air filters, plugs, oxygen sensor, air filters fit other E-303-series models. Steve, Ext. 4211.

RIMS - Ford pickup truck, alum., '69 Mustang rear seats, like new, truck & Mustang parts cheap. Wayne, Ext. 7238.

TIRES - 2, P225x75R14, excel., \$35 ea. 698-9274.

Boats & Marine Supplies

25' CHRIS CRAFT - full galley, 10' beam, brand-new rebuilt eng., single screw, full canvas, fish finder, sleeps 4, VHF, Phil, Ext. 2238 or 821-2940 after 6 p.m.

19 1/2' SEA SPRITE - 1989, cuddy cabin, low hr., 130-h.p. Merc. i/o, Shoreline trailer, DF, SS radio, excel. cond., \$8,000. Phil, Ext. 4030 or 732-8124.

19' CHAPARRAL 198XL - 1988, 165-h.p. i/o Merc., 1993 EZ-Load Rite trailer w/powerwinch, am/fm stereo, mint cond. Ext. 3376.

18 1/2' MARIAH 1850 Z - w/trailer & canvasses, 50 hr. on engine, \$10,000 firm. Tony, Ext. 3194.

16' STARCRAFT - w/35-h.p. Evinrude & Cox galvanized trailer. 325-0447 after 6 p.m.

15' BOAT - w/center console, good cond., 1993 galv. trailer, no motor, \$1,300; prop, OMC SST, 13x19, \$75; 4-h.p. Merc., long shaft, \$325. Bart, 924-6761.

JET SKI - 1987, 300, excel. cond., \$1,100. 878-1178.

Furnishings & Appliances

AIR CONDITIONER - Amana Super-thrust, 13,300 Btu, 9.5 EER, slide-in chassis, excel. cond., \$300. 473-6546.

BED - double-sized mattress & box springs, \$45. Orest, Ext. 7990.

BED - brass, king, head, foot, box spring frame, \$900; washer/dryer, Fridgidaire, 20-gal., stack, 6 mos. old, \$800. 821-1042.

BEDROOM SET - 3 pieces, maple, twin bed, dresser desk, \$50. 325-8116 eves.

BEDROOM SET - 5 pieces, lt. gray Formica w/King waterbed, \$700; kitchen table w/4 cloth covered chairs /wheels, \$80. Donna, Ext. 2716.

CHANDELIER - brass, \$50; swag light w/large globe, \$25; dk. wood end table, \$30; Farberware, 8-pc. set, \$50; Farberware double boiler \$20. Rich, 698-2521.

DESK FAN - 12", \$10; torchiere floor lamp, black, \$10; whistling tea kettle, white, new, \$10. 924-5181.

DINETTE SET - charcoal gray wood-grain Formica, oval table, ext. & 4 chairs, \$40. Louise, 744-5867.

DINING ROOM - Italian Provincial, cabinet, table w/3 leaves, 6 chairs, light color, \$600; contemporary l/r, sofa bed, love seat, chair, \$450. 744-1706.

DINING ROOM SET - octagon table w/2 leaves, 6 chairs, breakfronts, glass & wood. Anna, 874-3905.

FANS - Tatung, 12" rotator, 2' high, never used, orig. \$47, now \$35; Sherwood, 5' pedestal, light beige, never used, orig. \$40, now \$25. Gene, Ext. 7113.

FLOOR SHAMPOO-POLISHER - \$15; VCR, needs adjustment, \$20. Judy, 924-7077.

FUTON - queen-size, good cond., no frame, \$75 or best offer. 474-8715.

LIVING ROOM SET - 11 pieces, Colonial style, good shape, \$200. Beth, Ext. 4120.

RANGE - 30", Whirlpool, \$50; refrig. w/top freezer, 16 cu. ft., \$25. Ralph, Ext. 2591.

REFRIGERATOR - apt.-size, copper-tone, v.g. cond., \$75. 475-3612 after 5 p.m.

REFRIGERATOR - GE, side-by-side, 18 cu. ft., gold, frost-free, excel., \$200; Sears, apt.-size washer & dryer, like new, \$400. 265-6542.

SINK/STOVE/REFRIGERATOR - \$300; Singer sewing machine, \$75; captain's bed, single, \$50; Snapper lawn mower, \$50. 589-3020.

SOFA - Castro, queen-size, multi-colored peach seafoam, 1 yr. old, \$500 neg. 541-6587 after 8 p.m.

TABLE - oak, round, 42" w/18" leaf, 4 matching chairs, like new cond., \$300. 286-8374.

TABLE - pine trestle, 2 leaves, laminated top, 60"x36" w/o leaves, good cond., \$100; chairs, 4 caned seat, bentwood oak, antique, \$125. Nancy, Ext. 5744.

TETE-A-TETE - redwood, needs cushions & chairs, \$20. Sue, Ext. 7235.

TRASH COMPACTOR - Sears, like new, orig. \$200, now \$50. Bob, Ext. 3509 or 289-9533.

WASHER/DRYER - Kenmore, stackable, excel. cond., \$600 neg. F. McKenna, 281-6469.

WICKER - white, loveseat, 2 chairs w/cushions, table, orig. \$600, now \$250; mirror, white wicker, orig. \$150, now \$85. Alice, Ext. 2274 or 744-4835.

Tools, House & Garden

BLINDS - 1 pr., vertical, beige, vinyl, 9 prs. IKEA aluminum minis, dark green, \$5 ea.; mini grandfather clocks. Sue, Ext. 7235.

CABINETS - kitchen, 20 yrs. old, need refinishing, \$50. Ralph, Ext. 2591.

CABINETS - oak, bathroom w/clam shell sink and faucet like new. 289-8105.

GARAGE DOORS - 9'x7', wood w/1 row of windows, all hardware incl., good cond., \$75/ea. Ken, Ext. 5110.

LANDSCAPER TOOLS - gas-powered, Sears edger, Craftsman blower, Ryan line trimmer, needs overhaul, all for \$100, deliver on site. Bob, Ext. 4707.

LAWN MOWER - 3.5-h.p. Briggs & Stratton eng., needs tune-up, \$25. Nancy, Ext. 5744.

Sports, Hobbies & Pets

BIKE - woman's Atala, 10-spd., 27", \$30. Ray, Ext. 4561.

BIKE - 20" girl's mountain, \$15; BBQ propane tank, \$25. Bob, 689-9234.

BIKES - Schwinn 10-spd., yellow, good cond., \$100 for both, will not split up. 727-3608.

BICYCLE - 2 girl's, 10-spd., good cond., best offer. 289-9193.

CAR TOP LIGHTS - Whelan responder and set of wig-wag w/built-in flasher. Joe, 924-7476.

DIE-CAST MODELS - Franklin Mint, Peterbilt 1:32 scale 379; Harley Davidson Heritage Softail Classic,

1:10 scale, brand-new in the box. 277-2112.

DOG - Samoyed, looking for good family, needs children, attention, TLC, all papers, champion bloodline, 4 1/2 yrs., trained, playful male. Donna, 281-4866.

EXERCISE MACHINE - similar to NordicTrack, BMI-Aero Ski, new \$50. Joan, 744-9594.

FISH TANKS - 70-gal., \$225; 30-gal., \$85, both fully equipped w/pumps and filters. 588-9325.

GOLF CLUBS - 7-piece beginner set, \$75; golf bag, small, \$20. Linda, Ext. 2733 or 878-8491.

GYM SET - outdoor, in ground, Sears Armadillo 15, slide, 2 swings, rail, trapeze, rings, \$70; boy's bike, 20" Huffly, \$25. Steve, Ext. 2187 or 331-5738.

ROWING MACHINE - Tunturi, in good cond., ask. \$50. Pete, Ext. 7955.

ROWING MACHINE - WestBerd 5100, great exercises, excel. cond., \$40. 924-5181.

SCUBA WET SUIT - hood, gloves, boots, weight belt, weights, molds, \$100. Charlie, Ext. 2407.

TENNIS BALLS - like new, \$3/box. Ext. 7505.

WEIGHT BENCH - heavy-duty, leg attachment, 2 bars, \$50. 722-3905.

WET SUIT - full, med. size, like new, \$100. 289-8105.

Audio, Video & Computers

AMPLIFIER - Peavy, 5150 E.V.H., 2 heads, 2 bottoms, will sell whole or half stack. Robb, Ext. 4424.

CAMCORDER - 8 mm, low light, 6 to 1 zoom, 2 batteries, recharger and hard carrying case incl., make offer. Bob, Ext. 3509 or 289-9533.

COMPUTER - Commodore 128, 1541 II disk drive, MPS 1000 printer, Thomson color monitor, manuals, josticks and more than 75 programs. Rich, Ext. 7013.

DIGITAL PIANO - Roland, made in Japan, 61 keys, 5 instrument, tones w/recorder, almost new, orig., \$500, now \$150. Takao, 341-1012.

Miscellaneous

CAR SEAT - infant, \$15; child's car seat, \$15; baby carrier, \$15; metal closet, 42wx20dx64h, baby bottles, sterilizer. 878-4285.

TICKETS - the Eagles concert at Giant Stadium, Aug 24, 4 tickets, \$55 ea. Glenn, Ext. 4612.

PATIO UMBRELLA - \$20; 1950s bar, \$50; canister vacuum, \$25; chest of drawers, \$30, roller blades skates, \$25. Kathy, 744-2203.

VIDEOTAPE - "Tai Chi for Seniors", \$32; long form, \$30. Xue, Ext. 4379.

Free

AIR CONDITIONER - GE, 18,000 BTU, window unit, 220V, worked when last used. Steve, Ext. 2187.

BAMBOO - bring shovel & remove. Joanne, 244-7284.

DOG - Benji look-alike, female, very loving, playful, terrific w/kids, needs a good home. Pam, 475-2541.

POP-UP CAMPER - works, you haul away, needs new canvas, registered. 924-8558 after 5 p.m.

Yard & Garage Sales

BROOKHAVEN HAMLET - 6/10-11, 9 a.m.-3 p.m., raindate 6/12, antique "junque," 183 Old Stump Rd.

SHOREHAM - 6/11 9 a.m.-3 p.m., baby items, children's clothes, furniture, housewares, more, rain date 6/18, 15 Reynolds Road.

WADING RIVER - Sat. 6/11, 10-4 p.m., furn., household items, toys, more, W/R-Manor Rd. north to Sound Rd. to 47 Hill St.

Lost & Found

FOUND - keys, near gym, p.m. on 6/16. Barbara, Ext. 7643.

Car Pools

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

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

MILLER PLACE - furn. basement studio apt., \$500/mo. all. Barbara, 821-4432.

MONTAUK - Gurney's Inn, 1 bdrm. w/lr, refrig., TV, VCR, 1 full week, spa, pool, ocean, July 8-15. Mike, 735-2249.

N. SHIRLEY - studio, 14'x32' bdrm/lr, bath, w/w, phone, cable, share kit., 1/2 acre fenced, pool, parking, single nonsmoker pref., 7 mins. to Lab, \$450/mo. incl. all, refs. + sec. avail. 7/1. Ext. 3413 or 399-6947.

PATCHOGUE - own room, share house w/mature gentleman, 2 bdrm., bath, l/r, priv. ent., \$80/wk. 1 mo. sec. 286-3508.

PATCHOGUE VILLAGE - sunny, 1-bdrm. apt., full kit. & bath, walk to town, 15 min. from Lab, avail. 7/1, furn. or unfurn. 289-8105.

RONKONKOMA - bsmt. studio apt., lg. kit., priv. ent., cable, walk to lake, 20 min. to Lab, single, nonsmoker only, no pets, \$475/mo. incl. all. 467-3676 after 7 p.m.

SHOREHAM VILLAGE - 4-bdrm. summer rental, swimming tennis, boating, avail. July & August by week or month. 744-3480.

WADING RIVER - large 1-bdrm. apt., sep. ent., garden area, 10 min. to Lab, avail. 7/1. 929-0407.

KEY WEST, FL - 1-bdrm. oceanfront timeshare, Coconut Beach Resort, sleeps 4, full kit., ac, TV deck, pool, Jacuzzi, fish, swim, nightlie, \$1,050/wk. of July 23-30. Pat, Ext. 2539 or 929-3586.

KEY WEST, FL - oceanfront studio timeshare, Coconut Beach Resort, sleeps 2, refrig., microwave, ac, TV, deck, pool, Jacuzzi, fish, swim, night lie, \$700/wk. of July 23-30. Ralph, Ext. 2539 or 929-3586.

MT. DESERT ISLAND, MAINE - lakefront, full furn. 1 rm. cottage w/sleeping loft, kitchenette, bath, fp, deck on Echo Lake, Acadia Nat. Park, 6/25-10/15, \$450/wk. Bob, Ext. 2514.

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

For Sale

BAITING HOLLOW - 3-bdrm. ranch, 1/2 acre, bsmt., 1 1/2 baths, eik, 1-car gar., assum. ARM 4%, sec. system, \$135,000. Ext. 2683 or 369-5506 eves/wknds.

BLUE POINT - organic homestead, 1.4 acres, lg. irrig. veg. garden, solar panels, fruit trees + office, \$210,000. 363-7032.

BROOKHAVEN HAMLET - 9-rm. ranch, oak floors, skylights, cac, f/p, woodstove, solar hot water, 20'x40' gunite pool, alarm system, 3 1/2 acres, fenced, woods, fields, barn, sheds, must see. Marty, 286-0478.

CALVERTON - 2-bdrm. condo, 5 appliances, patio, upper deck, ac. Ext. 7595.

CENTER MORICHES - 4-bdrm. Cape, 2 park-like acres, 2 baths, full bsmt., d/r, lgp, cabana, shed, etc., \$199,900. 878-1529.

CENTER MORICHES - 4-bdrm. Colonial, l/r w/fp, d/r, eik, full bsmt., TV/laundry rm., 1.5 baths, oil heat, att. gar., town water, near all, 10 mi. to Lab, \$165,000. Marilyn, Ext. 2259 or 878-0939.

HAMPTON BAYS - 2-level, 4-bdrm., 2 baths, l/r, d/r, eik, fam. & rec. rms., deck, \$169,000. Mike, Ext. 7410.

MASTIC - 120'x100' cleared bldg. lot, all variances & permits, asking \$30,000. Patti, Ext. 3145.

MEDFORD - Blue Ridge Country Club, 2-bdrm. condo, 1 1/2 baths, incl. golf, tennis, billiards, in/out pools, whirlpool, sauna, clubhouse, restaurant, 15 min. to Lab, \$79,990. 736-8742.

MEDFORD - 3-bdrm. center hall Col., 1 1/2 baths, eik, den, l/r, d/r, gar., 0.4 fenced acre, \$117,000. 286-1571.

MIDDLE ISLAND - 2-bdrm. condo, mint cond., 1 1/2 baths, cac, upgrades, all GE appl., pool, clubhouse, 5 min. to Lab, will rent also. Mark, 369-7476.

PORT JEFFERSON VILLAGE - 5 bdrm.. wooded 0.5+ acre, cac, 2-car gar., beach, country club, walk to village & harbor, \$255,000. avail. 7/1, will rent. 331-3846 eves.

PORT JEFFERSON VILLAGE - custom-built, quiet, wooded, 2 1/2 baths, 2-car gar., fin. bsmt. w/sep. ent., bath & full windows, beach, golf, tennis. 331-4768.

QUOGUE - 3-bdrm. house, 1 1/2 baths, beach rights, under \$200,000. Tom, 653-4079.

RIDGE - 3-bdrm. high ranch, 2 baths, l/r, d/r, eik, sunroom, 1+ acres, fenced yard, wooded, secluded, many extras, 5 min. BNL, \$120,000. Judy, 924-7077.

RIDGE - 3-bdrm. townhouse, 1 1/2 baths, lg. l/r, 5 min. to Lab, \$69,900. 924-4734.

RIDGE - 3-bdrm. townhouse, 1.5 baths, cac, w/w, all appl., new w/d, HW heater, attic, patio, storage rm., 5 min. to BNL, move-in cond., \$63,000. Mary, 924-4328.

RIDGE - 5-yr.-old, high ranch; upstairs: 4 bdrm., 2 baths, l/r, d/r, sliding door to deck, kit., downstairs: large 1-bdrm. apt., Euro kit., full bath, priv. ent., 1-car gar., 5 min. to Lab, \$125,000. Ext. 5076 or 744-4615.

SHIRLEY - 3-bdrm. Calif. ranch, architect-designed, cath. ceilings, 3-sided fieldstone fp, 2 baths, 2-car gar., deck, fenced, landscaped, established area, near beach, \$99,900. Keith, 924-5062.

SHOREHAM - north of 25A, 4-bdrm. Colonial, 2 1/2 baths, l/r, d/r, lg. kit., fr/fp, w/w, fin. bsmt., igs, 1/2 acre, a/c, \$194,900. Ext. 5076 or 744-4615.

SHOREHAM VILLAGE - 3+ bdrm., 2 1/2 baths, cath. ceiling, Jacuzzi steam bath, decks, fin. bsmt., attic, gar., igs, walk to priv. beach, tennis, & country club, SWR SD, \$269,000. 744-9718.

SHOREHAM N. - 4-bdrm. Cape, wooded setting, beach rights, oak floors, f/p, 2 new baths, SWR schools, ask. \$170,000. Harvey, 821-1726.

SPEONK - 2-story, 2-bdrm. condo, 1 1/2 baths, all appl., pool, very sunny, Southampton town beaches, \$74,000. 325-8116