

## Tandem Facility Certified for Defense Testing

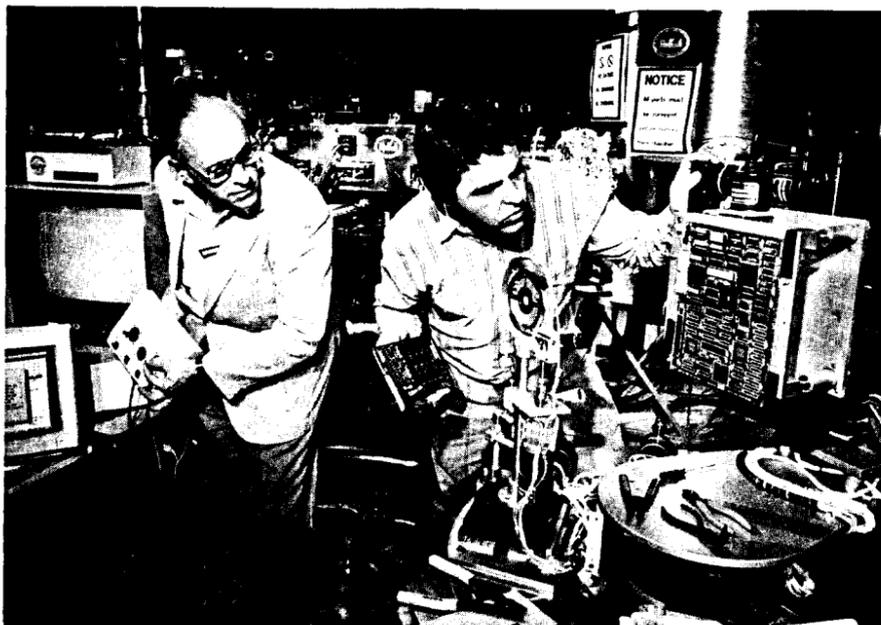
The Single Event Upset Test Facility (SEUTF) at BNL's Tandem Van de Graaff accelerator has become the first facility in the nation to be certified for testing the effects of cosmic rays on microcircuits used for defense applications. This distinction comes as a result of the facility's successfully passing an audit by the Defense Electronic Supply Center, a U.S. Department of Defense agency.

SEUTF was planned and built by a consortium of government agencies working with BNL, including the National Aeronautics and Space Administration, the Naval Research Laboratory, the National Security Agency and the U.S. Army Strategic Defense Command. Beginning operations in 1988, SEUTF has been used by government agencies and private companies for both defense and non-defense testing of microcircuits. The facility was designed to achieve high efficiency in testing and to be user friendly.

"It has been a frequently used facility, since there is only one other of its type in the nation, at Lawrence Berkeley Laboratory," said Peter Thieberger, Group Leader of SEUTF. "The audit served to verify that our ions had the correct beam purity, energy and mass, and that we keep accurate records. Now, with this certification, we expect to get even more users."

He added, "The dedicated efforts of Tandem Operations Supervisor Chuck Carlson and all the Tandem operators have been crucial in this endeavor."

Thieberger explained that when naturally occurring, high-energy,



Roger Stoutenburgh

At the Single Event Upset Test Facility at BNL's Tandem Van de Graaff accelerator, Peter Thieberger (left) and Vladimir Zajic check the motions of the computer-controlled goniometer stage used to position the microcircuits in the path of the ion beam. When operating, this mechanism is installed in the cylindrical vacuum chamber seen in the background at right.

charged particles in space — cosmic rays — hit a computer chip, they can upset its functioning. "Just a single particle hitting a microcircuit can cause an upset, or momentary malfunction," he said. "The result is a data error but usually no permanent damage." Similarly, the radiation emitted from nuclear explosions could induce these data errors in computer chips.

The facility uses the Tandem to simulate the effects of cosmic rays by creating a beam of energetic, low-flux

charged ions. The beam bombards a microcircuit, and single upsets are detected by a computer connected to the microcircuit while it is being irradiated.

"All branches of the armed services have certain radiation-hardness standards for microcircuits, and they also have laboratory suitability standards for testing them," said Carlson. "As our certification attests, our facility meets their requirements."

— Diane Greenberg

## Coming Up

A conference on "Safety and Health and the Working Women," sponsored by the U.S. Department of Labor's Occupational Safety & Health Administration (OSHA) in cooperation with BNL, will be held on Saturday, October 19, from 8 a.m. to 1:15 p.m., at the Cold Spring Harbor Laboratory. Admission is free, but advance registration is required. Contact Virginia Brown, Women's Program Coordinator, Bldg. 185, Ext. 2874.

The inaugural lecture in a new Science Education Seminar series sponsored by the Office of Educational Programs will be given by Johnnie Mae Jones, a professor at Hampton University. She will speak on Wednesday, October 23, at noon in Room B, Berkner Hall; bring your lunch.

Eugene Premuzic, Deputy Division Head of the Biosystems and Process Sciences Division (BPSD) in the Department of Applied Science (DAS), will deliver the 272nd Brookhaven Lecture on Thursday, October 24. His talk on "Biotechnology Without Genetic Engineering: the Use of Microbial Processes," will begin at 4 p.m., in Berkner Hall.

## Labwide Lecture Power Beaming as an Energy Option

How to meet the world's increasing demand for energy in the future is a yet-to-be answered question. As a result, there is a quest for realistic solutions based on futuristic scenarios.

One futuristic solution — solar powered satellites (SPSs) — was proposed in 1968, and its inventor — Peter Glaser, a vice president of Arthur D. Little, Inc. — will discuss its development in conjunction with power beaming in a lecture of Labwide interest.

Sponsored jointly by BNL's Departments of Applied Science and Nuclear Energy, "Power Beaming: An Emerging Option for Global Energy Supplies" will be presented on Monday, October 14, at 11 a.m. in Berkner Hall. The Lab community is invited to attend. Glaser will be introduced by BNL's Associate Director for Applied Programs, Sy Baron.

Power beaming is transmitting electric power through the atmosphere using lasers or microwaves. According to Glaser's scenario, power would be beamed from an earthbound power plant to a distant electricity user on another continent or in space via an earth-orbiting SPS.

As Glaser will relate, the development of an SPS is now being explored in the U.S., Japan and Europe. Since technology to build an SPS is available and must only be applied, the speaker believes that the challenge is not building such a satellite but creating a market for beamed power.

During his talk, Glaser will discuss proposed power-beaming demonstration projects involving the space shuttle or a space station. Once these have been proven, the inventor will contend, then any health, environment and safety issues must be assessed, and legal and regulatory



Peter Glaser

matters must be addressed next.

If power beaming is developed in such an orderly fashion, Glaser will conclude, then not only will investment capital become readily available for more down-to-earth projects, but also the general public who are to be the ultimate users of beamed

power will become accepting of the technology.

With Arthur D. Little in Cambridge, Massachusetts since 1955, Peter Glaser is now the Vice President of Space Operations of this large, high-tech research organization.

After patenting his SPS idea in 1973, he directed technical and economic assessments of this concept for NASA and the U.S. Department of Energy from 1972 to 1982. In addition, he has managed numerous space-related projects, including the development of superinsulations for use in space cryogenics, thermal protection for a space vehicle, and methods the thermal properties of lunar materials.

Peter Glaser received his M.S. and Ph.D. in mechanical engineering from Columbia University, in 1951 and 1955, respectively. In 1974, Columbia awarded him the Carl F. Kayan Medal for his contributions to engineering. In 1983 he received the Farrington Daniels Award from the International Solar Energy Society.

## Inside Info

Around the Laboratory, a number of important organizational changes became effective October 1.

Robert Palmer, one of the founders of BNL's Center for Accelerator Physics (CAP), has returned to the Lab to head CAP once again. William Willis, who has been head of CAP for the last year, is



Robert Palmer

development of a second large detector for the national Superconducting Super Collider (SSC), as well as continuing his involvement with detectors for BNL's Relativistic Heavy Ion Collider (RHIC).



William Willis

Explained BNL Director Nicholas Samios, "Bill's talents are being called upon to help in an important area. I would like to thank him for the leadership he has provided for us at CAP."

In addition, said Samios, "We are all happy to welcome back Bob to Brookhaven. Over a year ago, Bob was asked to go to the SSC Laboratory to help solve the magnet problem. As we all know here at BNL, among Bob's many talents, he is one of the world's experts in superconducting magnets. It is gratifying to note that Bob has succeeded and that the 5-

centimeter magnets are in good shape. He can now return to his major interest in advanced accelerator concepts."

Assisting Palmer as Deputy Head of CAP will be Ilan Ben-Zvi, who, said Samios, "will also continue to be in charge of the Accelerator Test Facility, for which he has done such an excellent job."



Ilan Ben-Zvi

(continued on page 2)

## Call for Suggestions For ERC Candidates

They are now four men and four women. They represent eight different departments and divisions, eight different positions and several job categories. They are the eight BNLers who were appointed by Laboratory Director Nicholas Samios to form this year's Employee Relations Committee (ERC).

Since January, these eight ERC members have been working as a team to help non-bargaining, non-scientific employees solve work-related problems that they were unable to resolve with their supervisors. But at the end of this year, three of the current ERC members will have completed their three-year terms, and three new members will join the team to continue this important work.

Anyone who would like to suggest a candidate for the ERC is encouraged to contact their department chairman or division head. Employee Relations Counselor Susan Foster, an ex officio member of the ERC, explained, "It can be difficult for employees to go to others with job-related problems. But, when committee members have been suggested by their peers, employees may naturally be more comfortable sharing their concerns."

Good ERC candidates will be people who are able to hear all sides of an issue objectively and maintain the complete confidentiality under which the ERC operates. Suggestions for new ERC members must be made before October 18.

Any employee who wishes to bring a problem to the ERC's attention may call its special number, Ext. 4005, or contact one of the current members: Michelle Cummings, Management Information Systems Division, Bldg. 459, Ext. 2077; Richard Eggert, Contracts & Procurement Division, Bldg. 355, Ext. 4834; Veronica Evans, Computing & Communications Division, Bldg. 515, Ext. 2851; June Herbert, Alternating Gradient Synchrotron Department, Bldg. 911B, Ext. 4692; Chairman William Kollmer Jr., Accelerator Development Department, Bldg. 902A, Ext. 4005 or 4479; Marguerite Marsch, Department of Applied Science, Bldg. 426, Ext. 3275; Michael Schaeffer, Plant Engineering Division, Bldg. 134C, Ext. 7941; and Richard Seebeck, Chemistry Department, Bldg. 555B, Ext. 4313.

## Inside Info

(cont'd)

Michael J. Murtagh has accepted the position of Associate Chairman of the Physics Department and will oversee its high energy program. He replaces Samuel H. Aronson, who has been



Michael Murtagh asked to form a collaboration for a second large experiment at RHIC.

Of these changes, Physics Chairman Peter D. Bond observed, "It is with mixed feelings that I see Sam leave the front office and



Samuel Aronson take on this new responsibility. He has done an outstanding job in overseeing the high energy program, and he has provided invaluable counsel on all Department matters. At the same time, he is the right choice to put together the very important second detector collaboration for RHIC.

"I am pleased," Bond continued, "that Michael Murtagh has accepted the position. Mike has been the Deputy Group Leader in the Omega Group and has played a major role in the neutrino physics program and, more recently, has been working on proposals for experiments at SSC and RHIC. It is fortunate that we have someone of his ability to take over this position, and I look forward to working with him."

Sharon L. Smith has been named Head of the Oceanographic & Atmospheric Sciences Division (OASD) in the Department of Applied Science (DAS). Since 1990, she has served as Deputy



Sharon Smith

Division Head, a position that has now been assumed by Creighton Wirick.

Smith replaces Paul Falkowski, who, explained DAS Chairman Leon Petrakis, "will step down ... in order to



Creighton Wirick



Paul Falkowski

devote his efforts exclusively to his research. Paul has served with distinction as Division Head for four years, with many significant accomplishments within OASD, but also in the inter-divisional Global Change Program of the Department. He made these contributions at a time that his research program also was particularly successful."

Petrakis added, "We are very pleased that Dr. Sharon Smith has agreed to accept the position of leadership for OASD, and we are confident that she will continue the record of achievement."

Smith, who joined the DAS staff in 1978, is an oceanographer involved with ecology of zooplankton and their role in carbon cycling in the Middle Atlantic Bight, Greenland Sea, California Current and Arabian Sea. On leave from the Lab in 1988-89, she spent one year with the National Science Foundation in Washington, D.C., serving as an associate program director in the Ocean Sciences Division of the Geosciences Directorate.

Edward T. Murphy has been selected to become Deputy Manager of the Plant Engineering Division. This position has been unfilled since July, when J. Bruce Medaris was promoted to Manager of that division.



Edward Murphy

Announcing Murphy's appointment, Medaris said, "Ed brings to

## Army Award is Workshop Highlight



Roger Stoutenburg

Soldiers who took part in Operation Desert Storm enjoyed hot meals on the battlefield — thanks to the heating units for army rations developed by the U.S. Army Natick Research, Development and Evaluation Center (NRDEC) of Natick, Massachusetts.

The Combustion Equipment Technology Program (CETP) in BNL's Department of Applied Science (DAS), which does research to increase efficiency and to advance technology for the oil-fired heating sector, did the initial testing of the new concept oil-burner technology before it was successfully field-tested by the U.S. Army under actual combat conditions in the Middle East.

In recognition of this advancement of oil-combustion technology, BNL, the U.S. Department of Energy (DOE) and the Petroleum Marketers Association of America (PMAA) presented an award to the U.S. Army's NRDEC at the 1991 Oil Heat Technology Conference held at BNL September 30 and October 1.

Shown here accepting the award for NRDEC is Gerold Hertweck (center). The presenters were: (from left) Roger McDonald, Senior Project Manager, CETP; DAS Chairman Leon Petrakis; Esher Kweiller, DOE's CETP Program Manager; and John Huber, Heating Fuels Counsel, PMAA.

Over 165 representatives from the oil heat industry attended the 1991 Oil Heat Technology Conference at BNL to review recent advances in oil heat technology resulting from research done in CETP, and in the private sector in the U.S. and Canada.

this position his very successful experience in the design and installation or construction of many large, complex and highly sensitive projects, together with comprehensive management experience, as well as full familiarity with the operating facilities of the physical plant and experience in the modernization of those facilities.

"His extensive knowledge of the environmental compliance and permit issues facing the Laboratory will aid him in addressing many of the most pressing current issues we face," continued Medaris. "In addition, Ed's education, consisting of a B.S. in engineering technology and a master's degree in energy management, gives him the broad technical knowledge to cope with our most complex technical problems. Ed is a licensed professional engineer as well."

## Attn: Retirees

Next month, the Bulletin will publish the annual Special Edition updating retirees' names and addresses, just in time for the holiday season.

We'd also like to include some "Retirement Notes" — your messages, stories or reminiscences that are of interest to the entire BNL community.

To share your "Retirement Note," send it to the Brookhaven Bulletin, Bldg. 134, Brookhaven National Laboratory, Upton, NY 11973. To be considered for publication, your note must be received by Friday, November 8. Submittals may be edited and will be published as space permits.

## PSI Meeting

At the next monthly meeting of the Upton Chapter of Professional Secretaries International (PSI), attendees will evaluate their secretarial styles and chart their professional futures.

As always, guests are welcome to attend the meeting, which will be held on Tuesday, October 15, at 6 p.m., in the south dining room of the Brookhaven Center.

For more information, contact Patricia Durcan, Ext. 3807, or Nancy Griffin, Ext. 4177.

## Credit Union Closed Monday

Although the Laboratory will be open, the Teachers Federal Credit Union will be closed Monday, October 14, in observance of Columbus Day. As usual, the automatic teller machine in the foyer of Berkner Hall will be in operation throughout the day, and the credit union will reopen on Tuesday at 9 a.m.

## Another Bachelor

In congratulating employees who received their bachelor's degrees last spring under BNL's Tuition Refund program, there was one graduate's name omitted: Thomas Russo, Alternating Gradient Synchrotron, who earned a bachelor's degree in engineering from the State University of New York at Stony Brook.



## Runners' Corner

The BNL Roadrunners recently fielded successful teams in two large corporate races: the 1991 Manufacturers Hanover Corporate Challenge and the Ocean-to-Sound 52-mile Relay Race.

### Manny Hanny

The Roadrunners placed eighth among the 121 male teams, twelfth among 62 coed teams, and fifteenth among 83 female teams over the 3.5-mile course at the annual Corporate Challenge on July 30.

As a result of the men's strong finish in this regional qualifier, they became the first BNL's men's team to qualify for the national championships. Unfortunately, due to schedule conflicts, the team will not be able to participate.

BNL Roadrunners on the three teams included:

Men's Team	Time	Pace
Don MacKay	19:13	5:29
Dave Arnett	19:46	5:38
Russ Tonkyn	20:47	5:56
Jerry Hastings	21:08	6:02
Peter Lane	21:47	6:13
Rich Thorp	22:43	6:29

Coed Team	Time	Pace
Charlie Edwards	23:35	6:44
Wen-Shi Yu	23:46	6:47
George Meinken	24:24	6:58
Sharol Busby	26:27	7:33
Pinaki Mukherji	28:28	8:07

Women's Team	Time	Pace
Joan Congemi	28:30	8:08
Swapna Mukherji	30:04	8:35
Ann Hassig	30:09	8:36
Traci Johnston	32:01	9:08

### Ocean-to-Sound

One of the Roadrunner's two 8-member teams placed second in the corporate category at the Ocean-to-Sound 52-mile Relay, on September 22. The event — 52 miles long but divided into eight legs of varying lengths and difficulties — started at Wantagh Park, headed north to Cold Spring Harbor, and moved west to the finish in Mitchel Park.

The second-place team's total time of 5 hours 16 minutes and 59 seconds was only three minutes behind the winning team's time. Captained by Paul Geiger, the second-place Roadrunners team included:

	Miles	Time	Pace
John Brodowski	7.0	43:40	6:14
Peter Lane	5.4	32:24	6:00
Mel Cowgill	5.6	33:36	6:00
Paul Geiger	7.7	44:50	5:49
Ed Gallagher	5.1	31:52	6:14
Jerry Hastings	7.6	47:53	6:18
Don McKay	8.4	47:00	5:35
Ed Meier	5.6	35:45	6:23

Another Roadrunners team, composed mainly of members of BNL's Safeguards & Security Division, finished in 6 hours 4 minutes and 58 seconds. Captained by Rich Thorp and running under the name Armed & Dangerous, this team and their approximate times and paces were:

	Miles	Time	Pace
Charlie Edwards	7.0	49:00	7:00
John Pagano	5.4	40:14	7:26
Sharol Busby	5.6	40:00	7:08
Matt Harrington	7.7	52:00	6:45
George Meinken	5.1	35:00	6:52
Helmut Thiel	7.6	52:00	6:51
Rich Thorp	8.4	53:00	6:19
Matt Harrington	5.6	38:00	6:47

## Arrivals & Departures

### Arrivals

Laura M. Bagnoli.....NSLS  
Marilynn B. Harned.....Tech. Info.  
Zeev Olami.....Physics  
Shobhana Norasimhan.....Physics

### Departures

None

# BROOKHAVEN BULLETIN

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## Hospitality News

### Women's Forum

The Women's Forum, formerly the Women's Support Group, will be conducted by Marion Davis-Parzen on Tuesday, October 15, from 10 a.m. to noon, in the lounge of the Recreation Building in the apartment area.

The group meets every third Tuesday of the month to discuss women's issues and to share experiences and concerns. Wives of Lab employees and guests are welcome. Come and bring the children.

## Bus Trip to Art, Antiques and Leaves

A few tickets remain for the BERA Art Society bus trip on Saturday, October 19, up the scenic Hudson to the Federal period Boscobel house and gardens, attractive antique Cold Spring village and Storm King outdoor sculpture park. Bus and entry fees cost \$26. To sign up call Liz Seubert, Ext. 2346.

## Golf

Under ideal playing conditions, 48 golfers competed in the recent tournament at the Rock Hill Country Club. Winners in each category were:

	Low Gross	Low Net
<b>Flight A:</b>	Joe DePace (78)	Joe Klemish (70)
<b>Flight B:</b>	Curt Bergh (95) Bob Mills Ed Smith	Robert Eich (74) Larry Musso
<b>Flight C:</b>	See-Meng Wong (95)	Dennis Malloy (69)
<b>Flight D:</b>	Dick Schonberg (97)	Joe DeLong (69)

**Closest to the pin:** Mike Clancy and See-Meng Wong

**Longest Drive:** Dennis Malloy

Going into the final tournament of the season, the standings in the Tournament Player of the Year competitions are:

Gross Score	Net Score
1. John Usher 36.45	1. Bill Cahill 22.30
2. Peter Bond 25.46	2. Don Gates 17.33
3. Les Lawrence 21.63	3. Tom Dilgen 16.98
4. John Millener 19.82	4. See-Meng Wong 14.96
5. Steve Heald 19.24	5. John Usher 14.47

## Adult Swim Lessons

Adult swim lessons will be given at the BNL swimming pool for eight weeks beginning Thursday, October 17. There will be beginner and intermediate classes, each costing \$25 for eight weeks of lessons on Thursdays, from 6:30 to 7:30 p.m. Register at the pool during open pool hours or on the night lessons begin.

## 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.

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

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

**POSTDOCTORAL RESEARCH ASSOCIATE** — Position available for recent Ph.D. with a background in organometallic or coordination chemistry, to work on a project involving the

### Parent-Toddler Group

The Parent-Toddler Group meets every Wednesday morning from 9:30 to 11:30 a.m., at the Recreation Building. Everyone is welcome, especially those with young children.

### Welcome Get-Togethers

The Hospitality Committee holds informal get-togethers on the second and fourth Tuesdays of every month, from 10 a.m. to noon, in the lounge of the Recreation Building, to let newcomers to the Lab meet other on-site residents. Please come for coffee and conversation, and bring the children.

## P-CAD Training

The Computing & Communications Division will again offer training in electronic design using the P-CAD design system. The course includes schematic capture through printed circuit board layout. Class size is limited, so reservations are required. For more information, call Pam Mansfield, Ext. 7286.

## Cafeteria Menu

### Luncheons

Monday, October 14	
Soup: Navy bean	.75/.95
Entree: Pork chop w/stuffing & 1 veg.	3.10
Entree: Chef's choice	3.10
Fitness: Beef stroganoff w/baked potato	3.10
Carvery: Hot pastrami sandwich	2.85
Grill: Grilled turkey & provolone w/fries	2.85

Tuesday, October 15	
Soup: Country vegetable	.75/.95
Entree: Baked glazed chicken	3.10
Entree: Stir-fry beef & pepper over rice	3.10
Fitness: Chef's choice	3.10
Carvery: Hot roast beef sandwich	2.85
Grill: Italian sausage & pepper grinder	2.85

Wednesday, October 16	
Soup: Tomato rice	.75/.95
Entree: Chef's choice	3.10
Fitness: Chicken Parmesan, 1 veg.	3.10
Entree: Turkey & dressing w/1 veg.	3.10
Carvery: Hot Black Forest ham sandwich	2.85
Grill: Tuna melt w/French fries	2.85

Thursday, October 17	
Soup: Cream of chicken	.75/.95
Entree: Tortellini Alfredo	3.10
Entree: Beef fajitas over rice	3.10
Fitness: Baked fish w/mushroom wine sauce & 1 veg.	3.10
Carvery: Hot corned beef sandwich	2.85
Grill: Chicken breast teriyaki on a bun	2.85

Friday, October 18	
Soup: Seafood bisque	.75/.95
Entree: Fried fish w/1 veg.	3.10
Entree: Chef's choice	3.10
Fitness: Baked herb chicken w/1 veg.	3.10
Carvery: Hot turkey sandwich	2.85
Grill: Bacon cheeseburger w/fries, pickle	2.85

**Breakfast Specials Served w/coffee & small juice, 7:30 - 10:30 a.m.** 2.65

**Mon.:** 2 eggs, bacon, one pancake, home fries  
**Tue.:** Western omelet, home fries, toast  
**Wed.:** Spanish omelet, home fries, toast  
**Thu.:** 2 eggs, bacon, cheese on croissant, fries  
**Fri.:** French toast, 2 eggs, bacon, home fries

## Cooking Exchange

The first meeting of the Cooking Exchange's new season will be Wednesday, October 23, at 12:15 p.m., in the Recreation Building in the apartment area. Cooking Exchange members prepare a variety of menus from different parts of the world and exchange the recipes. All are welcome especially newcomers to BNL.

A donation of \$2 per adult is requested to cover expenses for the ingredients and a light lunch. For additional information, call Andrea Aeppli, Ext. 3090; Megumi Akiba, Ext. 3015; Yfke Boosman, 736-2880; or Weiyi Yin, Ext. 3035.

## Bowling

### Red/Green League

R. Eggert bowled a 214/203, A. Warkentien 211/201, R. Wells 209, S. Dimaiuta 206, K. Asselta 204/203, W. Powell 203, N. Parrinello 200.

### White League

Dick Adams bowled consistently well for a 212/214/625, Joe Mayeski had a great 257, Sharon Smith 199, Pat Oster 192, Elaine Zukowski 182.

### Purple League

Super games were rolled by Lee Grimes with a 241 and Maryann Reynolds with a 232. Pat Manzella bowled 199/197, Caryl MacDougall 199/188, Betty Jellett 196, Renée Flack 196, Jeanne Penoyer 188, Debbie Keating 182, and Kevin Carney converted the 6/7 split.

## Volleyball

Volleyball League fees will be \$100 per team this season, and fees are due by noon on Monday, October 21.

Upcoming activities include:

• **Open League Captains' Meeting** — Monday, October 14, noon, Room D, Berkner Hall, to discuss playoffs and League structure; captains or team representatives must attend.

• **League II Captains' Meeting** — Tuesday, October 15, at noon, Room D, Berkner Hall, to discuss playoffs and League structure; captains or team representatives must attend.

• **Referee Clinic** — Monday, October 14, from 5:30 to 7 p.m., in the gym; each team must have a representative attend.

• **Volleyball Clinic** — Wednesday, October 16, from 5:30 to 7 p.m., in the gym, given by Jean Spears; all are welcome.

### Note to Employees:

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

development and evaluation of Cu-67, Sm-153 and Au-199 labeled monoclonal antibodies for radiotherapy. Leonard Mausner, Medical Department.

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

**NS 0983. ENGINEERING POSITION** - Requires BSME, MSME preferred, and ten years' experience. Experience in system integration, cost estimating and schedule analysis necessary; cryogenics, vacuum and magnet experience desirable. Work will involve design, specification and construction of large-scale particle detector systems for RHIC. RHIC Project, Accelerator Development Department.

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

**DD 6115. DESIGNER POSITION** (term position) Requires AAS or equivalent experience and a thorough knowledge of engineering fundamentals and standard handbook formulas in machine and structural design, strength of materials, mechanics and fluid flow. Will develop designs for major components of muon g-2 magnet. Will be responsible for full implementation of basic plan including material selection and follow-up. Alternating Gradient Synchrotron Department.

**NS 0984. TECHNICAL POSITION** - Requires AAS degree in electrical technology or equivalent experience and the ability to work from electrical schematics to assemble and troubleshoot complex equipment. Familiarity with sputter-ion and titanium sublimation pump power supplies and ancillary equipment necessary. RHIC Project, Accelerator Development Department.

**NS 0985. DESIGNER POSITION** - Requires minimum of ten years' experience designing complex mechanical structures in vacuum or related aerospace industries. Working knowledge of engineering fundamentals, machine design, shop practices and welding necessary. Familiarity with ANSI Y14.5-1982 and minimum of one year's

experience with AUTOCAD release 9 or later is required. RHIC Project, Accelerator Development Department.

### Motor Vehicles & Supplies

87 YAMAHA YZ125 DIRT BIKE - new rear tire, chain & sprockets, \$1,000; '80 GMC Jimmy 4x4, loaded, \$2,800. Danny, Ext. 4988 or 286-8541.

86 CHRYSLER LEBARON GTS - 5-spd., silver, 61k mi., p/b, p/s, p/w, am/fm, ac, new tires & shocks, \$3,500. Keijo, Ext. 7496.

81 OLDSMOBILE CUTLASS CRUISER WAGON - p/s, p/b, am/fm, ac, V-8, cruise, good cond., \$1,400. Mark, 924-0848.

89 FORD CROWN VICTORIA - 4-dr., p/w, p/l, p/m, cruise, ac, 47k mi., balance of 6/60 warr., \$8,350. Ext. 7271.

89 HYUNDAI EXCEL GLS - 4-dr. sedan, a/t, 32k mi., sunroof, more, \$5,000; '86 Lincoln Continental, 40k mi., more, \$7,900. Lloyd, Ext. 5225.

88 PONTIAC GRAND PRIX SE - white, gray leather int., fully loaded, 2.8L, V-6, ext. warr., 33k mi., \$10,500. 369-2716.

88 DODGE DAYTON - 5-spd., 4-cyl., 75k mi., \$4,200. Jim, Ext. 2152/7608.

85 CADILLAC ELDORADO - Landau roof, navy, must see, excel. cond., Ext. 4963.

85 CAMARO - fully loaded, \$3,000. 727-0082 after 6 p.m.

84 PONTIAC PHOENIX - 2-dr., V-6, a/t, ac, p/s, p/b, am/fm cass., new tires, excel. cond., \$1,250. 473-7667.

84 HONDA ACCORD LX - 2-dr. h/b, new clutch, water pump, timing belt, burgundy, \$2,950. Ext. 3844 or 475-8252.

83 VOLVO DL - 4-dr., high hgwy. mi., well maint., good cond., \$2,500. Ext. 4238 or 286-3509.

83 FIREBIRD SE - a/t, o.d., V-6, ac, am/fm cass., black, mint cond., \$3,500. Mike, Ext. 7594.

(continued on page 4)

83 PONTIAC 6000 LE - a/t, 6-cyl., fully loaded, moonroof, mint, asking, \$3,000 689-9234.

82 NISSAN STANZA - 4-dr., h/b, a/t, ac, tilt, cruise, new batt. & belts, good tires, 105k mi., good cond., \$1,350. Ext. 2679 or 472-6922.

82 YAMAHA XS400HS STREET MOTORCYCLE - 6k mi., many accessories, \$800 neg. 878-2702 after 6:30 p.m.

81 DODGE ARIES - m/t, new tires & battery, high mileage, runs well, \$750 neg. Randy, Ext. 5464.

81 DATSUN MAXIMA - a/t, 4-dr., ac, new brake system, \$2,000 neg. Maria, Ext. 5196.

81 SUBARU - 4-dr. s/w, am/fm cass., good running cond., \$300. Mark, Ext. 4289.

81 FIREBIRD - black, a/t, ac, p/s, p/b, new tires & brakes, runs well, ask. \$1,800. Barbara, 758-6892.

80 VW RABBIT - needs electrical work, make an offer. Shelley, Ext. 3372 or 281-1716.

80 CORVETTE - white, red leather int., Eagle GTs, 70k mi., must see, \$9,000 neg. 654-5607.

80 MUSTANG - parting out, call for your needs. Rich, Ext. 3354 or 589-9103.

80 DODGE VAN - ½-ton, p/s, a/t, 6-cyl., 30k mi., paid \$900, ask. \$1,082 or best offer, repl. starter & batt. w/new parts, runs well. Bob, Ext. 7041.

79 TOYOTA COROLLA - 95k mi., new tires, runs well, good cond., \$850. Mario, 736-1286.

79 CHEVY PICKUP - 4wd, w/cap, needs minor work, \$1,000 or best offer. Jim, Ext. 5319.

78 DODGE ASPEN - 4-dr., 103k mi., runs well, asking \$300; '73 AMB s/w, 73k orig. mi., body good, runs well. 289-0687.

78 PURITAN CAMPER - 19', sleeps 4, last chance, \$750. 467-5827.

78 CHEVY CHEVETTE - 4-dr., 4-cyl., 4-spd., good station car, \$450. 924-8213.

74 VW SUPER BEETLE - 4-spd., stereo, ask. \$1,000; 71 VW Super Beetle conv., sport rims, tires, more, ask. \$2,500. Teri, Ext. 5800 or David, 586-8399.

69 CAMARO - classic car, \$3,000. Jim, Ext. 3372 or 821-0250.

ROOFTOP CARRIER - Sears, large, used 3 times, \$75; Tuff box carryall for pickup, 2 compartments, used 6 mo., \$80. Ray, Ext. 4428 or 467-8297.

TIRES - like new, steel-belted radials, two Firestone Snowbiters, two B.F. Goodrich Trail-makers, P195/75 R14 M/S. Annamarie, Ext. 2352.

CHEVY STATION WAGON - ugly, runs well, \$800. Arnim, Ext. 5240.

TIRES - steel-belted, 185/70R14, \$10 ea.; Toyota rims, 4-lug, \$10 ea. Ext. 3372.

HELMET - Bieffe, full-face, black, X-large, \$30; 4 tires, Goodyear F-Metric, for VW Bug, 2k mi., comp. mounted & bal., \$125. Chan, Ext. 3867.

LIFT KIT - for Chevy truck, 2". Wayne, Ext. 2284.

ROOF RACK - gutter-mount, clamshell-type, sturdy, waterproofed, w/locks, asking \$20. Bill, Ext. 4175.

WHEEL COVERS - for '91 Dodge Caravan, never used, \$25. Walter, 938-8353.

### Boats & Marine Supplies

23' SLOOP - sleeps 4, new 6-h.p. Evin., 3 sails, v.g. cond., 4' draft, relocating, min. value \$3,500, will take best offer. Dona, 938-8353.

21' SAN JUAN SAILBOAT - w/trailer, good cond., \$2,500. Mark, 924-0848.

20' CHRIS CRAFT 205 LTD - 1988, Bowrider, 6-cyl. i/o, 8' beam, am/fm radio, Shore trailer, many extras, \$15,500. Bill, 732-8793.

16' WINNER - 50-h.p. Evin., elec. start, canvas, extras, marina maintained, \$1,100. Ellie, Ext. 3395 or Ken, 325-1537.

16' BOWRIDER - fiberglass, 65-h.p. Evin., trailer w/power winch, speedometer, \$1,700. Jim, Ext. 3372 or 821-0250.

14' BLUE JAY SAILBOAT - w/trailer, ready to sail, \$250. Mark, Ext. 4289.

14' HOBIE CATAMARAN - roller reefing jib, trailer, v.g. cond., \$1,400 or best offer; kayak, Klepper double, f/g, \$500. Ext. 7657 or 298-9560.

### Furnishings & Appliances

ANTIQUÉ DRESSER - oak, Princess, \$395; nat. wood chest of drawers, \$30; 30" shower door, \$45. Henry, Ext. 4547 or 727-7227.

BEDROOM SET - dresser, nightstand, mirror, \$150; 7½' Christmas tree, \$25; man's ice skates, size 10, \$10. Lou, 928-7042.

COUCH - living room or family room, full-size, excel. cond., best offer. Ext. 2610 or 924-5272.

COUCH - Ethan Allen, 7", excel. cond. 325-0447.

DINING ROOM - country oak, 48" round pedestal table w/leaf, 6 carved back chairs, hutch w/etched glass, mint, 3 yr. young, \$1,800. Bonnie, Ext. 2875.

DINING ROOM TABLE - pecan, 42"x66", w/two 18" leaves, excel. cond., asking \$350. Ext. 5079 or 928-0387.

FIREPLACE - freestanding, globe shape, burnt orange enameled top, flat black bottom & stove pipe, like new, \$150. 473-7667.

FREEZER - Admiral, upright, works well, 60"Lx25"Wx25"D, \$75. Toni, Ext. 5257.

FREEZER - small, chest-type, 8 cu. ft., 4 yrs. old, excel. cond., \$45. H. Sauter, Ext. 3783.

HEADBOARD - king-size, w/lights & mirror, storage drawers, dark pine, \$175. 874-2789.

MATTRESS - & boxspring, full size, v.g. cond., \$70. Shen, Ext. 3748.

MATTRESS - Futon, new, twin, \$50. Ext. 2683.

MICROWAVE - full-size, Sanyo, excel. cond., \$100. 821-5266.

PEDESTAL TABLE - oak, excel. cond., \$100. Sue, Ext. 2888.

RECLINER - Lazy Boy, desk lamp, small table, etc. Ext. 3125 after 6 p.m. or wknds.

REFRIGERATOR/STOVE/SINK UNIT - 3 in 1, excel. for apt., great cond., \$450. Marie, 589-3020.

REFRIGERATOR - 19 cu. ft., \$75; G.E. dual oven & elec. range, \$50; sofa bed, 751-4539 or 282-2475.

SOFA BED - v.g. cond., \$250; 2 exercise mats, new \$5 ea. Yannis, Ext. 5324.

BEDROOM - dresser, mirror, chest, dark pine, double bed, stained dark, \$300/neg.; shower base, 38", new, \$100. Sue, Ext. 3492 or 289-6844.

COUCH - Basset, tan w/pattern, wide light oak trim, good cond., will deliver, \$100. 369-2838 or 744-9802.

DINING ROOM - contemp., dk. wood table, 1 leaf, 6 chairs, china closet, buffet, 5-light chandelier, \$350/firm. E. Grahn, Ext. 4792 or 265-3731.

DINING ROOM - country dark pine table, chairs, hutch, \$450. John, Ext. 3675 or 924-3528.

DINING ROOM - Ethan Allen, dark pine, 42" round table w/12" leaf, 4 chairs, \$250. 473-6546.

GARBAGE DISPOSAL - Fox 1600, commercial size, \$200. Beth, Ext. 4120.

MICROWAVE - Emerson, turntable, defrost, 10 power levels, like new, \$60; microwave cart, \$30. Mario, 736-1286.

RANGE - hood, Nautilus, harvest gold, brand-new, 36", \$30. Cora, Ext. 7681.

STOVE - 30", 19 cu. ft. refrigerator/freezer, yellow, 8 yr. old, never plugged in, must sell, best offer. Walter, 928-8353.

### Tools, House & Garden

CHAIN SAW - Remington, electric, 8" bar, \$10. Joe, pager 0925 or Ext. 2898.

COAL-BURNING STOVE - Wellington, cast-iron, v.g. cond., make offer. Gary, 758-5592.

EXHAUST FAN - explosion-proof, 16" dia., w/louvers, \$50. Dan, Ext. 2075.

LAWN MOWER - John Deere, gas, needs engine work, otherwise fine, \$35. 473-6546.

SHRUBS - evergreens, ready to transplant, good sizes, excel. prices. 878-4825.

SNOW PLOW - Meyers, fully hydraulic, 2.5 meters, \$500. Dave, Ext. 3199.

TABLE SAW - Sears, good cond., \$155; fiberglass laundry sink, large, w/legs, \$20. Frank D., Ext. 2022.

THERMOSTAT - Hunter, energy monitor, heat & cool, programmable, many functions, new, never used, \$35. John, Ext. 4601.

WATER PUMP - deep well, tank, Micromet filter, assembly, filter & valves, 2 yr. old, \$100/all. Pete, Ext. 4581 or 399-2813 after 5 p.m.

WINDOW - bay, 7'4" x 4'4", w/storms, \$125. John, Ext. 3675 or 924-3528.

WINDOWS - 3, double hung, 36"x43", \$25/ea., \$65/three. 744-4386.

### Sports, Hobbies & Pets

BICYCLE - BMX, 20" free wheel rims, hand brakes, needs tires, \$30. Joe, 929-5911.

CAMERA - Nikon F3 HP MD4 motor drive, SB16, dedicated flash, 35-200 zoom lens, Tokina, mint cond., make offer. Irv Meyer, 929-4326.

CAMERA - Olympus Supertrip, auto., 35mm, like new, orig. \$195, asking \$85. Mario, 736-1286.

CAMERA - Minolta Freedom 101, 35mm/4.5 lens., fully automatic, case, box, warranty card, like new, \$60. Mike, Ext. 7434.

FLUTE - Artyl, 18-0, needs tune-up, \$75; Minolta Easy Flash, F-1.7 lens, \$50. Janet, Ext. 2345 or 929-3910.

GOLDEN RETRIEVER PUPPIES - born 9/17, AKC reg., sire from Bermuda, excel. hips. 477-2451.

SIBERIAN HUSKY - female, spayed, 4 yr. old, owner moving. Pam, Ext. 4082.

LIFETIME MEMBERSHIP - Jack LaLanne, gold card, \$500. Penny, Ext. 2625 or 467-8297.

PING PONG TABLE - w/net, good cond., \$50. Ext. 2679 or 472-6922.

SKIS - K2, 165cm, poles, 280 Tyrolia bindings, 9-9½, Caber boots, \$125. Mike, Ext. 7941.

UNIVERSAL WEIGHT STATION - Marcy I, orig. \$1,500, asking \$1,000. 345-2634 after 5:30 p.m.

### Audio, Video & Computers

COMPUTER - Commodore 64, color monitor, disk, tape, Koala pad, printer interface, software, \$250 or best offer. Alan, Ext. 2928 or 929-0461.

GUITAR AMPLIFIER - 2 channel, foot switchable, clean, \$75. 981-9351.

KEYBOARD - 1 yr. old, Yamaha, many features, paid \$375, sell \$255. Nikki, Ext. 3316.

LP RECORDS - Franklin Mint Collection, limited edition, classical, never played, excel. recordings, plus others. Janet, Ext. 2345 or 929-3910.

SPEAKERS - Cerwin Vega #D3, 3-way, 10" woofer, handles 125 watts channel, new, \$265 pr.; Akai belt turntable, \$75 firm. 474-3799 afternoon.

TELEPHONE - cellular mobile, Novatel, carrying case & battery pack incl. \$125. Fred, 369-9720.

TV - 25" Zenith, wood console, excel. cond., make offer. Joe, Ext. 2975.

WORKSTATION - UNIX Sun 2/120, 5mb RAM, 144MB SCSI disk, 19" b&w display, mouse, Ethernet, SCSI ½" cart. tape, \$1,600. Jim, Ext. 3768.

RADIO - Sony, cassette recorder, portable, like new, \$45. Bill, Ext. 2354.

HAM RADIO - ICOM IC U2AT w/extras, battery, like new, \$110; AH-2A, brand-new, \$220; rotor, T²X, brand-new, \$195, more. 929-6646.

SOFTWARE - IBM, orig. packages, utilities, learning, simulators, games, for list. Phil, Ext. 7934 or 728-0273 eves.

RADIO CONTROL TRANSMITTER - Futaba, 5-channel, K&B 40 engine, Sig Kidet plane, needs repair, \$125. Mark, Ext. 4289.

TV - Zenith, 26", electronic color tuning, console, used. Janet, Ext. 2345 or 929-3910.

TV - 21", console, cable-ready, v.g. cond., \$150. Marcia, Ext. 7796.

### Miscellaneous

ART COLLAGE - & 2 twin sculptures, asking \$500. Aharon, Ext. 5028.

CLOTHING - dresses, blouses, cashmere sweaters, designer suits, skirts, size 10-12, Gucci shoes, 7½M. Mary, 928-5185.

DESIGNER FRAGRANCES - for women & men, Obsession, Guess, Drakkar, Eternity, more; 3.3 oz./\$25. Lou Pergola, Ext. 3499 or 732-1028.

HANDMADE ITEMS - s/s jewelry, T-shirts, sweatshirts, hand-painted. Gatz, Ext. 5196.

LETTERING TEMPLATES - Leroy, full sets of Greek & English, many extras, best offer. Ext. 3492 or 289-6844 after 6 p.m.

OPERA TICKETS - Met, *Don Giovanni*, Sat., Oct. 19, matinee, orchestra center row, Levine conductor. Ext. 3922.

OPERA TICKETS - 2, Met, Mon., Oct. 14, *Aida*, balcony, \$29/ea. Arnie, Ext. 2606.

NECKLACE - sterling duck, \$25; Victorian necklace, \$20; cuckoo clock, \$20; fireplace grate, \$5; electric heater, \$20. Kathy, 744-2203.

TICKETS - Alexander Nevsky, *The Movie and the Music*, Avery Fisher Hall, Fri., Oct. 25, right orchestra, \$35/ea. Sateesh, Ext. 4105.

### Free

KITTENS - furry, adorable, 7 weeks old, assorted colors, pictures avail. Jim, Ext. 3170 or 475-4947.

### Yard & Garage Sales

BAITING HOLLOW - 10/11, 10 a.m.-4 p.m., community sale, Sound Ave., Oak Hills.

CENTEREACH - 10/12-13, 10 a.m.-4 p.m., household, children's items, more, 60 Hammond Lane, off Middle Country Rd.

HUNTINGTON STATION - 10/5-6, 3 Mohegan Place.

PATCHOGUE - antique estate auction, 10/12, 11 a.m., 85 Buckley Road, antiques & collectibles from 3 generations.

SMITHTOWN - 10/12-13, 10 a.m.-4 p.m., camping equip., clothes, crocheted items, books, 3 Steven Place.

WADING RIVER - 10/12, 9 a.m.-4 p.m., furn., antiques, bric-a-brac, N. Wading River Rd.

YAPHANK - multifamily sale, 10/12, 9 a.m.-4 p.m., Mill Road, main ent. to German-American Settlement League.

### Car Pools

FROM BAYSIDE TO HICKSVILLE - will meet anywhere & share car and driving. Henry, Ext. 3817.

### 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

MATTITUCK - 2-bdrm. ranch, l/r, d/r, fam. rm., w/d, full bsmt., gar., \$750/mo. + sec. & util. Dave, Ext. 5460.

MILLER PLACE - 1-bdrm. apt., brand-new, l/r, eik, full bath, patio, microwave, no pets, immed. occup., \$750/all. 928-3604.

OLD MASTIC - 2-bdrm. house on private wildlife setting, near bay, 2 wooded acres, sep. studio & workshop, 2 fp, all appl., historic dist., 20 min. from Lab., \$950/mo. + util. Hans, Ext. 3737.

RIDGE - furnished studio apt., private, fenced-in yard, 5 min. from Lab., avail. end of Oct. \$500/mo. 744-8632.

ROCKY POINT - cozy, 1-bdrm. house, f/p, bsmt., low util., near beach, \$625/mo. Kevin, Ext. 2948 or 744-0871.

SHIRLEY - 2½-rm. apt., \$450/all, employed, mature person, nonsmoker preferred, priv. driveway & ent., quiet surroundings, 10 min. to Lab, 1 block off Wm. Floyd Pkwy. 281-6263.

SHOREHAM - 2nd floor, 2-bdrm. apt., l/r, kit., bath, pvt. ent., mature couple or single, no pets, \$650/mo. + elec. Eileen, Ext. 3827.

SOUND BEACH - 2-bdrm. contemp., close to sound & shopping, N. of N. Country Rd., \$775/mo. + util. avail. Nov. Erik, Ext. 4603.

S. JAMESPORT - 1-bdrm. cottage, l/r, eik, porch, bath, part. furn., suit. couple, walk to beach, 20 mi. to Lab, no children/pets, \$450/mo. + util. Walt, Ext. 2907/2241 or 698-0576 eves.

WADING RIVER - 3-bdrm. house, 15 acres of woodland, kit., d/r, lg. l/r w/fp, 2 full baths, full bsmt., gar., large yard, very secluded, \$1,100/mo. Charlie, 878-0093.

PALM HARBOR, FL - 3-bdrm. townhouse, 2½ baths, carpet, 5 appl., cac, screened patio, lake view, gar., pool use, no pets, lease. Henry, Ext. 3558.

SINGER ISLAND, FL - 2-bdrm. apt., 2 baths, furn., on ocean, pool, sauna, game room, 30 min. from W. Palm Beach airport, 1 mo. min., 2-3 mo. preferred. Joyce or Paul, 289-5770 after 6 p.m.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, tennis, beach, golf nearby, Oct.-Dec., \$350/wk. Guy, Ext. 3147 or 689-5378.

BROMLEY, VT - 3-bdrm. condo, 2½ baths, l/r w/fp, TV/stereo, completely furn., \$8,000/Nov.-Apr.. 518-747-7821.

### For Sale

BELLPORT VILLAGE - 2-bdrm. house w/sleeping loft, 2 baths, secluded, near golf & tennis, Fr. doors & decks, outdoor hot tub, \$248,000 or rent \$1,200/mo. + util. Susan, Ext. 2888 or 286-0422.

CALVERTON - 1-acre wooded bldg. lot, residential neighborhood, cul-de-sac, all permits to build acquired, \$49,500. Lori, Ext. 3046 or 874-8839 after 6 p.m.

CALVERTON - 2-bdrm. mobile home, 12'x55', 1 bath, adult park, quiet area, 10'x12' shed, \$19,000 neg. 929-4312 or 744-7549.

CENTER MORICHES - Main St., comm. property, 3 rental income, all rented, good location, good opportunity, will hold mortgage. 878-1178.

CENTER MORICHES - 4-bdrm. Col., lg. l/r w/fp, d/r, eik, TV rm., laundry rm., 1½ baths, full bsmt., deck, gar., walk RR, shops, 10 min. to Lab, 1 mi. to bay, 100'x150', \$189,000. Marilyn, Ext. 2259.

CORAM - Strathmore East, 4-bdrm. ranch, 2 baths, cathedral l/r, 2-car gar., gas heat, fenced corner lot, \$120,000. Ext. 3791 or 928-7154.

EAST MARION - 1-acre bldg. lot adjacent to Greenbelt, walk to Sound. 325-0447.

EASTPORT, SOUTHAMPTON - 100-yr.-old Victorian, 90% renovated, 4-car heated gar., 1.6 acres, \$198,000, also seven 1-acre wooded lots, \$75,000-\$90,000. 325-1998, leave message.

HOLBROOK - 4-bdrm. ranch, l/r, d/r, eik, full unfin. basement, w/w, deck, fenced yard, ¼ acre, \$124,900. Ext. 3809 or 588-9019 eves.

MANORVILLE - 1 acre, 5-bdrm. ranch, eik, l/r, pantry, foyer, laundry, igp, vinyl siding, bsmt., 1½ baths, low taxes, screened patio, wood or coal stove, conv. location, \$140,000. 472-2414.

MIDDLE ISLAND - 3-bdrm. ranch, eik, den, d/r, l/r w/bay window, 1½ baths, screened porch, patio, full bsmt., wooded ½ acre, cul-de-sac, \$128,900 neg. 924-6051.

MIDDLE ISLAND - 3-bdrm. Cape Cod, l/r, d/r, kit., bath, patio, lot 100'x107', fin. rm. bsmt., new OHWH, roof, \$99,500. 924-3082.

PATCHOGUE - 4-bdrm. Victorian, mint, parlor, l/r, d/r, eik, sunroom, 1½ baths, fp, new roof, new cesspools, updated elec., plumb., heat., beautiful woodwork, ½ acre, \$189,900. Tom, Ext. 4030.

PORT JEFFERSON STATION - ½ acre, fenced backyard, igs, prof. landscaped, alarm system all appl., 1-car gar., attic fan, desirable neighborhood, \$131,900.

RIDGE - 3-bdrm. townhouse, 1½ baths, cac, w/w, all appl., newly redecorated/carpeted, enc. red-wood patio, storage rm., attic, low monthly maint., 5 min. to BNL, \$80,000. Mary, 924-4328.

RIVERHEAD - modular home, adult park, perfect for retirement, 3 bdrm., 2 baths, eik, laundry, l/r, w/w, cac, 5 min. drive to golf, ask. \$46,900. Green, 369-8452 eves.

RIVERHEAD - 12'x65' mobile home, 2 bdrm., new kit., bath, HWH, wood siding, Andersen windows, lg l/r, d/r, 8'x10' shed, cooperative park, w/d, \$35,000 neg. Beth, Ext. 4986 or 369-4295.

SHIRLEY - 3-bdrm. ranch, designer bath w/skylights, full bsmt w/laundry room, all oak floors, d/r, l/r, security lights, fully fenced on 100'x100', \$110,000. Ext. 3531 or 281-7578.

SHOREHAM - 4-bdrm. Cape, attach. 2-car gar., 2 fp, 1½ baths, d/r, 1-acre treed lot, new appl., extras, estate, must sell. Vi, Ext. 5169 or 744-6043.

SHOREHAM - 3-bdrm. brick Cape, eik, playroom, gar., full bsmt., 1½ baths, remodeled, conven. loc., SWR SD, \$135,000. Janet, Ext. 2345 or 929-3910.

SHOREHAM - 3-bdrm. ranch, ½ acre, SWR SD, low taxes, 2 baths, large eik, d/r, l/r, den,