BROOKHAVEN BULLETIN
Vol. 40 - No. 27 July 11, 1986
BROOKHAVEN NATIONAL LABORATORY

Neutral Beam Project Under Way

Construction began this week on the Neutral Beam Test Facility (NBTF), which is being built on Michelson Street, adjacent to the 200-MeV linac and the Radiation Effects Facility (REF). The new facility will use part of the linac's negatively charged hydrogen (H^-) beam in developing and testing H^- neutralizers, and neutral beam sensing and control devices.

This $12 million project, together with REF, is funded by the U.S. Air Force as part of the Strategic Defense Initiative. A neutralized particle beam is essential for space use because it would not be bent by the earth's magnetic field, as a charged beam would be. A beam of negatively charged hydrogen ions is said to be neutralized when the ions are each stripped of one electron and are left as a beam of neutral hydrogen atoms.

The H^- beam to be available at the NBTF will be variable in energy, with the range from about 100 to 200 million electron volts. The design calls for the beam current to be about 0.5 milliamps, with an angular divergence of two microradians in one plane.

As well as sharing the beam with the REF, the new project will share technicians and spare parts. While it will be possible to run the REF while people are working on the NBTF experimental floor, the converse will not be true due to the radiation produced.

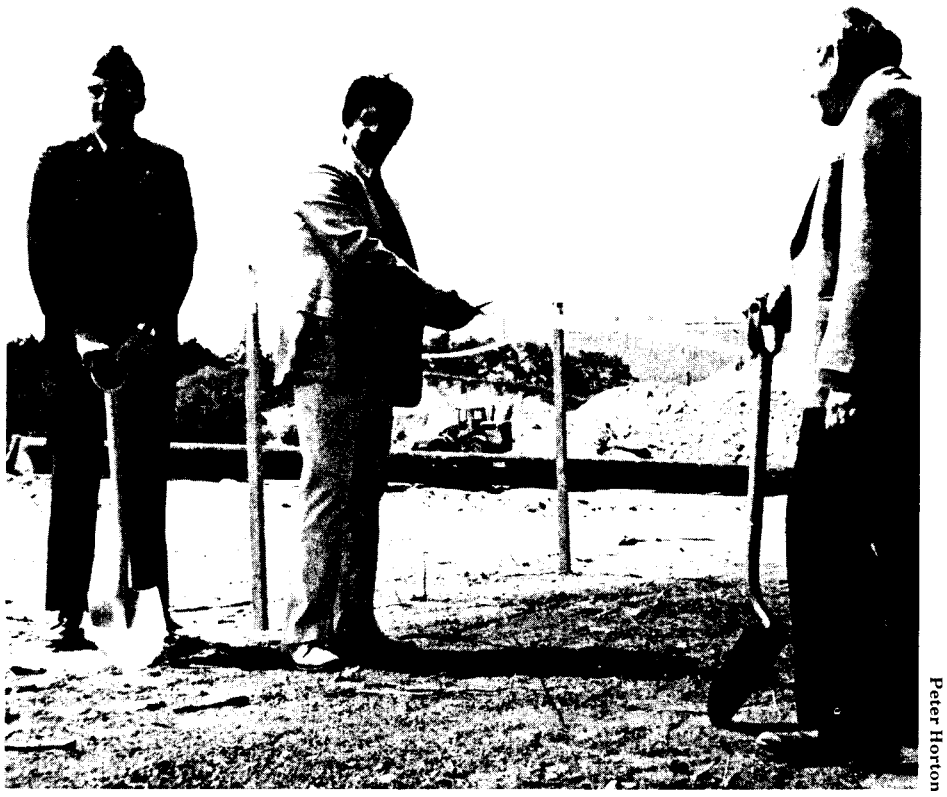
An H^- beam consists of protons each having two electrons. In attempting to neutralize the beam, if not just one electron per ion but both electrons are stripped off, an unwanted bare proton, or H^+ ion, results. "Therefore, we must neutralize the beam in a very controlled fashion," says Ray McKenzie-Wilson, NBTF project engineer.

A neutralizer, one called a pulsed-gas cell, will be built along with the facility. It works by having a long column of low-density gas in the path of the particle beam, which strips off electrons as the ions pass through it. About 60% of the particles that emerge will be neutralized, while the remaining 40% will emerge as either H^- or H^+ ions.

Other neutralizer methods are being examined by BNL and other institutions. These include devices using a short column of high-density gas, plasma, and carbon and aluminum foils.

According to McKenzie-Wilson, the foils have a big advantage because they are so thin and have the shortest neutralization path. "The earth's magnetic field is a problem for the NBTF, as well as in space," explains McKenzie-Wilson. The longer path length of the gas neutralizers results in more beam dispersion, among other things. The effects are predictable, but add complications in understanding experimental results.

A preliminary beam-sensing instrument will also be assembled to examine the neutralized beam. The first technique being considered is called laser-resonance fluorescence, but other concepts are being examined as well. "Sensing the beam and trying to understand it in a non-destructive way is very difficult because the beam has no charge," says McKenzie-Wilson, "But this task is the most interesting part of the program."


Peter Horton

At the Neutral Beam Test Facility ground-breaking ceremony on June 27: (from left) Lt. Col. Wayne Graybeal, Air Force Weapons Laboratory, program manager for neutral particle beam-sensing technology; Laboratory Director Nicholas Samios; and Department of Nuclear Energy Chairman Herbert Kouts.

If the construction goes as scheduled, the Neutral Beam Division of the Department of Nuclear Energy, which will operate the NBTF, will begin in May 1988. In addition to SDI research, the new facility may be used by BNL and university scientists in the medium energy, atomic and nuclear physics fields. "The NBTF beam, with its unique properties, will allow scientists to do a range of experiments that have not been possible before," adds McKenzie-Wilson.

— Marsha Belford

How to Get There From Here

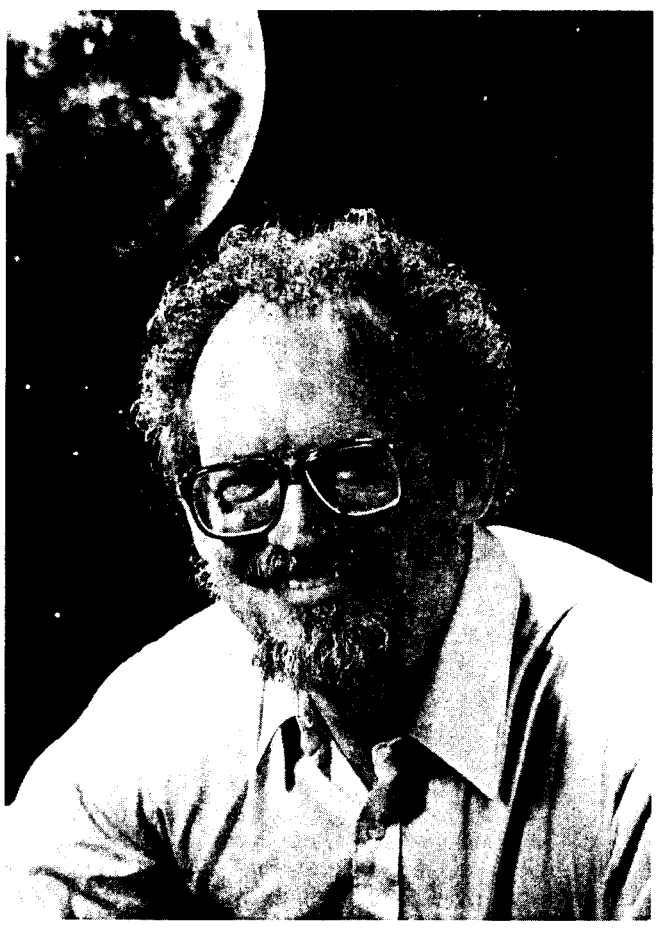
The single most important event in the history of humankind has not yet happened, according to James Powell, head of the Reactor Systems Division, DNE. That event will be our first contact with intelligent life from outer space.

How can we make that contact? That and other questions about space communication and travel were discussed in a symposium, at the recent annual convention of the American Association for the Advancement of Science, organized by Powell and a friend, Paleobiologist Charles Pelligrino of Hofstra University. Powell and Pelligrino have been collaborating in their spare time for 2½ years on the prospects for travel among the stars and are writing a book on the subject.

At the one-day symposium, they hosted such luminaries as Isaac Asimov, who spoke about society's attitudes toward space travel, and Robert Jastrow, who talked about the possibilities for other habitable planets.

At present, space travel is limited by chemical propellants, the type of rocket fuel used. In his symposium lecture, Powell recommended switching to high-energy nuclear fuels, such as fusion and antimatter-annihilation propulsion, for journeying to other stars. Explains Powell, "It is an engineering impracticality to get a rocket going more than three times its exhaust velocity. Considering the size of a starship and the distance involved, it is impractical to use conventional chemical fuels for interstellar travel."

Within the next 200 years, Powell foresees interstellar travel at speeds up to 20% of the speed of light — using fusion pellets as the fuel. He suggests making the pellets from deuterium, an isotope of hydrogen abundant in the earth's oceans, and having the pellets ignited by a small amount of matter annihilating antimatter — which completely converts to energy.


Mort Rosen

James Powell

"The U.S. Air Force is interested in using antimatter in a more near-term application," says Powell. Because one milligram of antimatter is equivalent to 20 tons of hydrogen and oxygen fuel, the Air Force is exploring ways of producing antimatter for use in spacecraft propulsion.

While this may be physically feasible, Powell comments that it will be an engineering feat. "And it is still going to take a lot of money to turn electric power into condensed nuclear fuel," he adds. Electric energy would be used to create a beam of high-energy protons, which would hit a target, creating some anti-protons. After capturing and condensing the antiprotons, they must be suspended, using electric and magnetic fields, to prevent the fuel from being annihilated before use.

"The cost of doing all this probably would not be practical for interstellar travel, at least for the foreseeable future," concludes Powell. "It would be practical, however, to use a small amount of antimatter to trigger fusion pellets to produce the energy needed to fly a starship."

A manned spaceship carrying no rockets and fuel, chemical or nuclear, but instead relying on beamed-power propulsion was a suggestion made by another speaker, Rober Forward of Hughes Research. High-powered laser beams focused by large lenses would propel 600-mile-wide sails, a few microns thick, attached to a starship.

To get an interstellar satellite into space within the next 20 to 30 years, Forward suggested bouncing microwaves off a "starwisp," a fine mesh of wires one mile wide. Pulling its satellite, this wire sail would be accelerated to 20% of the speed of light and propelled to a nearby star, like Alpha Centauri. Once within that star system, the satellite would take pictures, which would be sent back to earth.

"For interstellar signaling, microwaves traditionally have been thought to be better than lasers," says Powell. However, laser light waves, having shorter wavelengths than microwaves, can transmit information much faster. The preference for microwaves is now being questioned because lasers have been made more powerful and their beams can be better directed.

NASA is planning to use microwaves for a systematic search for signals from intelligent life elsewhere in the universe. Powell believes that NASA should also search the optical, as well as the microwave, spectrum.

"Given the march of technology over the past 100 years, interstellar communication and travel is just a matter of time, and what seems like science fiction today will become a reality," Powell concludes.

— Marsha Belford

A Star-Spangled Banner Weekend

Don David, Physics, celebrated the 4th of July with true American spirit: he volunteered to work for the Liberty Weekend celebration. David, who had been to the top of the Statue of Liberty many times as a kid and with his children, and whose maternal grandparents passed through Ellis Island in the late 1800's, relates his volunteer experience.

"About a month ago, my wife Genie and I decided that we'd like to see the Liberty Weekend fireworks," says Don David. "While wondering how to avoid the huddled masses, yet yearning to see the cherry bombs bursting in air, I heard a piea on the evening news for volunteers to work during the ceremonies. So Genie, my daughter Mary, her boyfriend Kevin and I applied, and a week or so later, we were accepted after having passed a security check.

"The Friday before the 4th, we and several hundred other volunteers were oriented at the New York Colosseum. Four people were needed on Ellis Island on Thursday, the 3rd of July, so we volunteered. We also volunteered to work in Battery Park City on Friday the 4th.

"So Wednesday, my wife and I drove into the city, where we stayed overnight with my daughter at her East 34th Street apartment. Thursday, 8 a.m., we boarded a launch at the Battery, which took us over to Ellis Island. In a fenced-in area at one end of the island where Chief Justice of the Supreme Court Warren Burger was to swear in 265 new American citizens, I undertook my first assignment: garbage detail. Kevin and I were to clean up around the stage, while Genie and Mary answered phones in the command headquarters in a trailer.

"Security was very tight, but, after emptying a couple of trash bags into a dumpster outside the fence, I managed to duck into one of the immigration buildings under renovation. The construction crew was off that day. The building was mostly gutted, the stairways were being reconstructed and holes in the floors and ceilings were in the process of being patched.

"When Kevin tried to visit the building a bit later, he was escorted back to the compound by an FBI agent.

"About 10 a.m., a SWAT team, with high-powered weapons, from Atlantic City took positions on the building rooftops. I finished wiping off the 300 chairs in front of the stage around 11 a.m., after which two FBI agents went through the rows with their bomb-sniffing dogs. Another FBI duo rowed around the island in a dingy, searching for bombs in the sea wall cracks. In the meantime, TV crews were setting up their equipment and rehearsing.

"Though we worked hard handling all the garbage, we still had time to watch the goings on in the New York harbor. The Coast Guard and New York City police launches spent most of the day trying to keep a channel to Ellis Island open through the flotilla of 20,000 small boats. The Presidential helicopter flew over us, as did the Air Force precision-flying team.

"Around 6 p.m., the dignitaries started arriving: Chief Justice Burger and his wife, Attorney General Edwin Meese and his wife, and entourages of Secret Servicemen. After that, actor Robert DeNiro and his son, dancer Mikhail Baryshnikov, and their bodyguards and entourages came on the island. The Chief Justice and the movie stars each had a motor home into which they disappeared. The two New York Senators, Daniel Patrick Moynihan and Alfonse D'Amato, arrived around 7 p.m., followed by the people to be sworn in and their families. We served them apple pie and Coke.

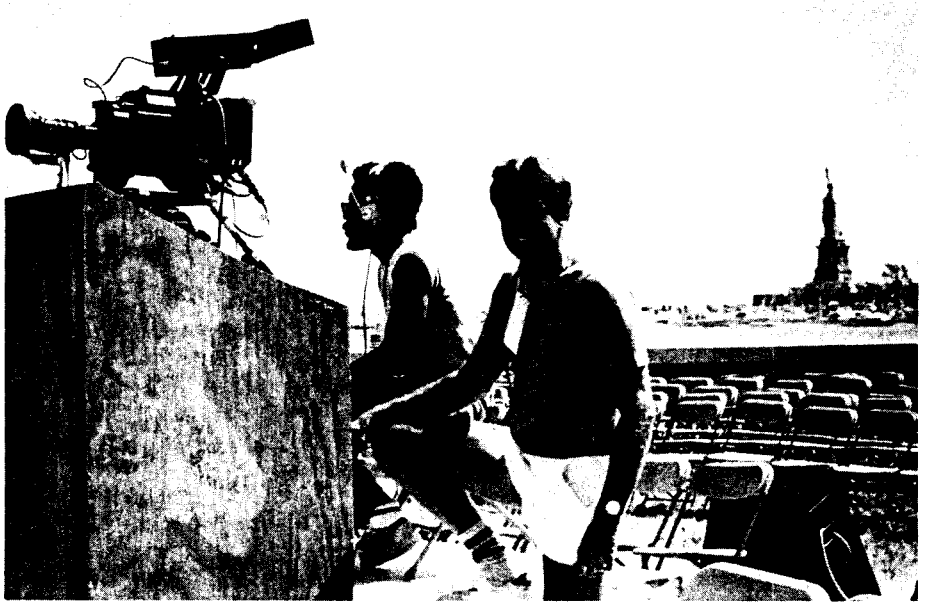
"We stood behind the TV cameras, as the speeches and swearing-in took place. The view of lower Manhattan was beautiful during the day and even more spectacular in the evening. Just as we had hoped, we had a great view of the relighting of the Statue of Liberty and all the fireworks.

"Friday morning, since our train wasn't running, we had to drive downtown. But there was hardly any traffic, and we easily found a parking space. After milling about the World Trade Center, we headed over to Battery Park to watch Operation Sail. Since we had official ID badges, we got through the police barricades and entrance gates, and into the bleachers. I found the procession of tall ships boring after an hour or so. Because they were so far away, we couldn't see much.

"Reporting for duty at 4 p.m., we were issued T-shirts, visors, meal tickets and our assignments. More garbage. When the crowds started arriving around 7 p.m., we were reassigned as ushers. After seating several thousand people, we sat down ourselves and enjoyed the breathtaking fireworks display.

"When it was over, we walked uptown through a sea of people to the car, and my wife and I headed home. We could have volunteered for the Central Park concert Saturday and at the Meadowland's show on Sunday, but we were too exhausted from our two-day stint. We wanted to get back to a Long Island beach to recuperate.

"Volunteering was a wonderful way to see and participate in the Liberty Weekend. I wish I could invent some new superlatives to describe this once-in-a-lifetime, historic 4th of July," concludes David. — Marsha Belford



Don David pauses after dusting off the seats on Ellis Island to have his picture taken with the Statue of Liberty.

Equipment Demo

AMP Special Industries, Marketing Division of AMP Inc., will be presenting electronic connectors used in communications, local area networks, test equipment and fiber optics applications on July 17. The demonstration will be given in their connector caravan, which will be parked outside of Berkner Hall from 12-1 pm.

Cafeteria Menu

Week of July 14

Monday, July 14

Chicken noodle soup	(cup)	.65
	(bowl)	.85
Sauteed beef tips w/butter noodles		2.45
Roast fresh ham w/one veg.		2.45
Egg salad & cottage cheese plate (lite weight)		2.25
Hot Deli: Garden ham club		2.35

Tuesday, July 15

Southern beef vegetable soup	(cup)	.65
	(bowl)	.85
Swiss steak jardinière w/one veg.		2.45
Stuffed peppers w/one vegetable		2.45
Quiche Lorraine w/one vegetable (lite weight)		2.45
Hot Deli: Roast beef	(bread)	2.30
	(roll)	2.45

Wednesday, July 16

Minestrone soup	(cup)	.65
	(bowl)	.85
Spaghetti w/meat sauce & French bread (All you can eat)		3.35
Braised liver & onions w/one vegetable (lite weight)		2.45
Hot Deli: Italian meatball hero		2.35

Thursday, July 17

Beef barley soup	(cup)	.65
	(bowl)	.85
Chicken breast teriyaki w/one vegetable		2.55
Meat loaf w/mushroom gravy w/one vegetable		2.45
Tuna, cole slaw & potato salad		2.25
Hot Deli: Smoked turkey	(bread)	2.35
	(roll)	2.50

Friday, July 18

New England clam chowder	(cup)	.65
	(bowl)	.85
Fried seafood plate		2.55
Turkey à la king w/biscuits		2.45
Rice chicken salad plate (lite weight)		2.25
Hot Deli: Italian sausage sandwich		2.35
Kielbasa sandwich		2.35

Arrivals & Departures

Arrivals

Henry G. Raimondo .... Sfgrds & Sec.
David A. Rathjen ..... Chemistry
Neil A. Schaknowski ..... Instr.

Departures

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

Norman R. Carlson ..... Accel.
Albert J. Cimmino ..... Accel.
John F. Damone ..... NSLS
Arthur C. Dick ..... Accel.
John R. Engle ..... Medical
Arthur Forman ..... Medical
Abbie G. Freeman ..... Biology
Abe Friedman ..... Accel.
John J. Fuhrmann ..... Physics
Ralph J. Giallorenzo ..... Accel.
Lawrence V. Hankes ..... Medical
Jenuk Kabua ..... Medical
Robert I. Louttit ..... Accel.
Richard P. McKenzie .... Sfgrds & Sec
Keith L. Monson ..... Biology
Robert C. Murphy ..... Sfgrds & Sec.
Devon A. Plows ..... Accel.
Michael Seul ..... Physics
Amelio G. Sanchez ..... Plant Eng.
Edward B. Smith ..... NSLS
James D. Smith ..... S&EP
John P. Stone ..... Medical
Howard Vetter ..... Accel.
Gaylord N. Wall ..... S&EP
Thomas Weldon ..... Medical

Note to Diners

The Cafeteria will be closed on Saturday, July 12. On that day, snack bar service will be available from 9:00 a.m. to 2:00 p.m. at the Brookhaven Center.

In Memoriam

John J. Agostine Jr., Design Engineer at the Accelerator Development Department, died suddenly on July 5. He was 60 years old. Agostine joined the Laboratory in March 1962. He is survived by his wife, Nettie; and two daughters, Lorraine Miller and Doretta Tucker. He was a resident of Holbrook.

Liberty List on Hand

The Research Library (Bldg. 477) and the Public Relations Office (Bldg. 134) have copies, yours for the asking, of a five-page bibliography on the history and restoration of the Statue of Liberty and Ellis Island. This annotated list of books is reprinted from the Library of Congress Information Bulletin.

Caring for the Old

A common misperception is that we do not take care of our elderly family members. According to the Cooperative Extension Association of Suffolk Country, however, five million Americans help aged parents so that they can live independently. Family members provide an estimated 80-90% of the essential services that their older relatives need.

Helping an elderly relative can become an overwhelming task if the person primarily responsible does not receive help and support from other family members. You do a better job if you and your family follow a few simple suggestions.

First, you should allow and encourage the older person to remain as independent as possible. You should not take on an overprotective or "parenting" role. You should also search for resources in the community that can help you do a better job of providing services. The Office of Aging may be a good place to start.

Defining what responsiblities you will have for an elderly parent or relative is very important. Once that decision is made, you should also try to involve as many members of the family as are willing to help.

Cooperative Extension will be providing a series of informal workshops this fall on "Caring for Elderly Relatives." For more information, contact Nancy Olsen-Harbich at the Cooperative Extension Office, 727-7850.

Reports Available

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call the designated contact at the extension listed.

NUREG/CR-3091
BNL-NUREG-51630
Vol. 7
Contact: A. Spira, 2352
Review of Waste Package Verification Tests. Semiannual Report Covering the Period April 1985 - Sept. 1985. Prepared by P. Soo.

NUREG/CR-3444
BNL-NUREG-51699
Vol. 3
Contact: N. Yerry, 2335
The Impact of LWR Decontaminations on Solidification, Waste Disposal and Associated Occupational Exposure. Annual Report Fiscal Year 1985. P.L. Piciulo, et al.

BNL-51889
Contact: A. Vanslyke, 2387
Effects of Acid Deposition on Agricultural Production. P.D. Moskowitz, et al.

NUREG/CR-4293
BNL-NUREG-51900
Contact: D. Votruba, 2746
Reliability Analysis of Shear Wall Structures. P.C. Wang, et al.

NUREG/CR-4328
BNL-NUREG-51905
Contact: D. Votruba, 2746
Probability Based Load Combination Criteria for Design of Shear Wall Structures. H. Hwang, et al.

NUREG/CR-4366
BNL-NUREG-51913
Contact: D. Votruba, 2746
Reliability Assessment of Containment Tangential Shear Failure. S. Pepper, et al.

BNL-51941
Contact: S. Smith, 2835
Biomass, Growth, and Development of Populations of Herbivorous Zooplankton in the Southeastern Bering Sea During Spring. J. Vidal, et al.

Golf

The fourth tournament of the BGA season will be held on Monday, July 21, at the Indian Island Suffolk County Golf Course, Riverhead. Tee times will begin at 11 a.m. and may be obtained by contacting Joe Mayeski, Ext. 2575, Bldg. 911A.

There will be a $1 entry fee for BGA members and a $2 entry fee for non-members. Deadline for signing up is Thursday, July 17. Greens fees are $8, $4, and $14 for Suffolk County residents, senior citizens and non-residents respectively. The tournament will be stroke play with gross and net winners by flight.

A record 71 golfers teed up for the bogey competition at Swan Lake Golf Club. Winners for most gross points were John Elzinga (11), Mike Zguris (0), Bob Schuman (-2), and Rick Jackimowicz (-10) in flights A, B, C and D, respectively. Winners for most net points were Arthur Dick (14) in A, Robert Meier and Dan Van Rooyen (12) in B, Joe Bauernfeind (12) in C, and Ron Weider (10) in D. Joe DePace's ball was the closest to the pin at both holes #7 and #13. John Millener and Ralph Brown had the longest drives on #7 and #18.

Swim Club

At the Queens College Masters Swim Meet on Saturday, 28 June, seven BNL Swim Team members swam times that qualified them for 23 events in their respective age categories for the upcoming 1986 Empire State Games. As well as breaking personal and BNL swim team records in all the events in which he swam, Peter Heotis placed second overall in the 100-yard butterfly. Toshi Sugama finished second overall in the 200-yard breaststroke and third overall in the 50 and 100-yard breaststroke.

50-yard Freestyle		
Peter Heotis	25.18	1st men 35-39
Wlodek Guryn	27.50	4th men 35-39
Paul Michael	30.88	2nd men 54-59
Marsha Belford	35.94	1st women 30-34
Carrie Miles	40.43	2nd women 40-44
100-yard Freestyle		
Peter Heotis	56.20	1st men 35-39
Wlodek Guryn	1:03.64	2nd men 35-39
Paul Michael	1:16.13	2nd men 54-59
Marsha Belford	1:18.12	1st women 30-34
200-yard Freestyle		
Marsha Belford	2:50.28	1st women 30-34
Paul Michael	3:03.48	2nd men 54-59
Carrie Miles	3:48.83	2nd women 40-44
50-yard Butterfly		
Peter Heotis	27.80	2nd men 35-39
Wlodek Guryn	30.68	4th men 35-39
100-yard Butterfly		
Peter Heotis	1:02.53	1st men 35-39
50-yard Backstroke		
Ron Wittlock	32.77	1st men 50-54
Wlodek Guryn	35.04	1st men 35-39
100-yard Backstroke		
Ron Wittlock	1:16.75	1st men 50-54
200-yard Backstroke		
Ron Wittlock	2:44.57	1st men 50-54
50-yard Breaststroke		
Toshi Sugama	33.14	1st men 35-39
Carrie Miles	56.60	1st women 40-44
100-yard Breaststroke		
Toshi Sugama	1:12.91	1st men 35-39
200-yard Breaststroke		
Toshi Sugama	2:48.00	2nd men 35-39
200-yard Individual Medley		
Toshi Sugama	2:54.75	3rd men 35-39
Marsha Belford	3:09.86	1st women 30-34

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Mort Rosen

Rubin cleans up his act

. . . And the Livin' Is Easy?

The large manila envelope was stuffed in my mail box. It was from Brookhaven National Laboratory. About the summer program, probably. But it was in a LARGE ENVELOPE! My heart began pounding rapidly as I fumbled to open it.

My parents were thrilled when I told them the good news. They were relieved that I was going to be on Long Island for the summer, writing for the Bulletin. My alternate plan was to tag turtles in Costa Rica. Unfortunately, my parents do not share my affection for 300-pound sea turtles.

Brookhaven National Laboratory. Just how far out on Long Island is it? That far? Exit 68 on the Long Island Expressway. What's out there? Beaches, shopping malls, strawberry farms, trees. "You'll have a great time. What a fantastic experience," Mom said.

Two months later, my parents drove me out to Brookhaven from Brooklyn. The car was laden with clothes, books and food. We toted a large fan with us — the dorm rooms were not air conditioned. As we drove toward Compton house, Mom remarked, "I've never seen so many trees. Where are you going to eat?"

Berkner Hall, of course. I decided at the beginning of the summer that I was not going to cook. Too hot, too much work. The solution was a large lunch and those cafeteria specials.

Dinner is another story. While I rough it with yogurt and raw carrots for dinner, my friends are testing the various permutations of spaghetti and meat sauce, meat sauce and spaghetti. Their culinary creations are always "delicious and hardy." They have told me that I must learn to cook.

Shopping is always an adventure. Since there are no on-site supermarkets, we have to go back into the real world in search of sustenance. The shopping algorithm is simple. Find a kind generous soul, who just happens to have a car. Load as many people into the car as possible. Reach the local Pathmark without getting into an accident. Load up the shopping cart with generic (graduate-student) food. Return to home base before all the food spoils.

In the absence of cars, I've gone on suicide bike rides to the Middle Island Shopping Area for food. On my last food run, the casualties were three green bananas.

Learning my way around Brookhaven was another rite of passage. I still have not figured out how the building numbers work. I want to know where buildings 1 through 49 are and who was the logician that assigned the numbers to the other buildings. It disturbs my sensibilities that Building 134 is across the street from Building 460.

Getting my ID-card almost turned into a comedy of building errors. Security, aka police headquarters, is located in Building 50, but is map number 12. Map number 50 is the Energy Storage and Conversion. Reversing map and building numbers, I almost ended up getting myself stored and converted instead of photographed.

The ID-card mishap was nothing compared to the Laundry Odyssey. Doing the laundry had been one of my least favorite activities in college, but getting to the BNL Laundry Building and back is an even larger headache. With two weeks worth of dirty clothes in a backpack and duffel bag, I tottered on my bicycle from Compton House down Yale Avenue. Doing the wash was easy compared to the two trips I needed to get all the clothes back to the dorm, and, even then, half of my clothes were crushed. It was then I remembered that an iron was something I had forgotten to bring with me.

Compton House, named after the Compton of Compton Effect fame, is situated on scenic Mitchell Lane somewhere behind the Brookhaven Center. I usually don't need a compass to find my friends' rooms because corridors are classified according to their direction relative to the magnetic north pole. The TV area, located at the center of the north, east and south corridors, is the social center of Compton. Whether people are talking, eating or just watching TV, it's the place to be.

Shocking as it may seem, summer students do more than just watch TV, do their chores and do research. It would take another article to describe the people in BNL's summer program for college students. And indeed it shall. I really do plan to write another article after I shop, do my laundry and find my way back to the word processor in Building 134.

— Howard Rubin

Softball

League I
Standings as of July 1

	Won	Lost
Division I:		
Cool 'n Gang	4	2
Ravens	3	3
Moles	2	4
SMF	1	5
Division II:		
Blue Jays	5	1
Phoubars	4	2
Six Pax	4	3
A-Team	3	3
Dirty Sox	2	4

League II
Standings as of June 25

Magnuts	6	1
Binary Bombers	5	1
Scram	5	1
AMD	4	2
Titans	3	3
Medical	2	4
Lights Out	1	5
Phase II	1	5
Cutting Edge	1	6

League III
Standings as of June 26

Snakebites	7	0
Survivors	6	1
Septembers	5	1
Kidz-R-Us	5	3
Farm Team	4	3
Source	2	5
Turkeys	2	6
Mole-esters	2	6
Who Cares	0	8

League IV
Standings as of June 26

Foul-Ups	7	0
No Feedback	4	2
Who's on First	4	4
Hit 'N Run	4	4
Sandboxers	3	3
Underalls	3	4
Simply Awesome	3	4
Mudville Sluggers	3	5
Spacekadets	1	6

Summer Special

Great Adventure: Leave 7 a.m., Saturday, August 9. Cost $35 (cash only), includes transportation, admission (six hours of fun, amusement park and safari) and breakfast, lunch, snacks and beverages. Limited seats. Money due on or before July 15.

For further information and reservations, contact Renee Flack, Ext. 3315, Bldg. 460.

Bravissimo BNL!

BNL employees put on a great show at the recent blood drive. They donated 559 pints of blood, a 22% increase over the amount given last June. Although 82 of the 641 people who came to the gym were turned away, those people who had temporary health problems can donate elsewhere when their problems clear up. Any blood they give will be credited to BNL's total.

Tennis Anyone?

Only a small number of players have signed up for the annual tennis tournament. Rather than cancel the tournament forthwith, we have extended the deadline to July 16. So we are giving you one more chance. Run, do not walk, to the BERA Sales Office at Berkner Hall to sign up. If there is sufficient response, five events will be held: men's and women's singles, men's and women's doubles, and mixed doubles.

Motorcycle Club

The club will meet on Monday, July 7, at 5:00 p.m. at the Recreation Building. A ride to Rhinebeck Airdrome and a camp out will be discussed.

Did you know? BNL phone numbers have undergone several changes. For example, the Lab's original number was Patchogue 2600. In 1952, the number was modified to PAtchogue 3-2600. By June 1956, the phone number was YAphank 4-6262. And in 1967, the new number was 924-6262. In June 1972, the Lab went on a direct dialing system and the number changed to 345-2123. When GTE became BNL's telephone service, in 1981, the Laboratory phone number became 282-2123.

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

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

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

THE VACANCY LISTED BELOW HAVE BEEN EXEMPTED BY THE DIRECTOR'S OFFICE FROM THE CURRENT FREEZE ON OPEN REQUISITIONS.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2454. ENGINEERING POSITION - Requires a BS in mechanical or structural engineering or its equivalent and a minimum of 10 years' experience in the design of mechanisms and machines. Responsibilities include the preparation of design and manufacturing drawings and aspects of manufacture installation and testing. Must have computer-aided drafting equipment experience. Will assist in the development of designs for beam lines, beam-line components, beam-sensing equipment and related systems. Department of Nuclear Energy.

Autos & Auto Supplies

78 PINTO - 4 spd, excel. cond., sunroof, new brakes, exhaust, tires, am/fm stereo cass., $1,250. 924-6918.

74 MG - $400, Ext. 7633.

78 DATSUN 510 - station wagon, good running cond., a/c, 4 spd., $1,000. Lew, Ext. 5193 or 928-4863.

79 PLYMOUTH VOLARE - wagon, 72k mi., p/s, p/s, brand-new a/t, roof rack, extras, excel. Asking $1,895. Ext. 7505 or 689-8605.

76 FORD VAN - V8, 351, a/t, p/s, p/b, customized mag wheels, sunroof, velvet bed, refrig., toilet, captain seats, snows, excel. cond. in-out. Make offer. Ray, Ext. 3536 or 289-7615.

75 PLYMOUTH G. DUSTER - 2 door, a/t, a/c, am/fm cass., good running cond., good value. $550. 924-3236.

84 VW GTI - sunroof, a/c, 2 dr, low mileage, 5-spd., A-1. 324-5330, after 5 p.m.

75 FORD - V8, a/c, a/t, p/b, p/s, am/fm, new trans., tires, rel. trans., $650. Ext 7901 or 821-9328, eves.

TIRES - 2 each, 31x10.50, 15 inch, LT truck on/off road trail king, $20/ea. Joe Bush, Ext. 4638, beeper 572.

75 FORD GRANADA - 87k mi, stick, runs very well. $450. Ext. 2455 or 331-1432.

75 PLYMOUTH DUSTER - 2 dr., a/c, p/s, am/fm radio. Asking $550. 924-3236.

80 PONTIAC GRAND PRIX - p/s, p/b, a/c, am/fm 8 trk, excel. cond. $3,500, firm. Maryann, Ext. 5234 or 286-3377 after 6 p.m.

67 CHRYSLER CONVERTIBLE - new top, new seats, p/s, p/b, p/w, a/t, 383-V8. Tony, 698-9274.

86 SUBARU WAGON - 4 wd, 4 dr., loaded w/extras, cost $13,000. Asking $11,000. 2 mo. old, must sell. Beth, 475-4370.

59 CHEVROLET WRECKER - mechanically sound, cosmetically unsound, $350. 286-1829.

77 DATSUN B210 - 5 spd., stand. trans., good gas mi., good cond., $1,500. Jim, Ext. 2305.

75 AMC MATADOR - 2 dr., a/t, all service records avail. Bob Walton, Ext. 2388.

86 FORD ESCORT "L" - new, take over payments, $176/mo. Gene, Ext. 5293.

84 CHRYSLER LeBARON - 4 dr., p/s, p/b, p/dr. lk, 6 spkrs, etr stereo/cass., p/ant, a/c, white/blue vel. int., 23k, mint. $7,500. Ext. 5176.

81 CUTLASS SUPREME - a/c, p/s, p/b, rally wheels, $4,000. Ellie, Ext. 3395 or 325-1537 after 6 p.m.

83 NISSAN PULSAR - 4 dr. sedan, p/s, p/b, a/c, 5 spd. manual, stereo/tape, mint cond. Asking $4,759. Ext. 2198 or 744-4662.

ALUMINUM RIMS - set of 4 rims, will fit Mustang or Capri vehicles. Asking $100/rim. Ext. 7112 or 472-1922 after 7 p.m.

71 NOVA - rally sport, p/s, p/b, 400-4 barrel, alum. manifold, headers, wide tires, rally wheels, 350 trans. w/Fairbank shift kit. Asking $1,800. 286-3149 after 5 p.m.

74 FORD GALAXIE 500 - good running cond., no rust, very reliable, $750. Jim, 567-6226.

77 PONTIAC BONNEVILLE BROUGHAM - 4 dr., excel. cond., orig. owner. $2,000, negotiable. Ext. 5263 or 821-3290 eves.

81 DATSUN 510 - 4 dr. hatchback, 5 spd., a/c, sunrf, perfect looking and running. $3,500. Ext. 3896 or 475-0386.

78 TOYOTA SR5 - pickup, long bed, 5 spd., 64k mi., am/fm. cap, Michelin tires, $1,900. John, Ext. 4187 or 929-8204.

75 COUGAR XR7 - a/c, p/s, p/b, new brakes and exhaust, good cond., $800. 758-5659 after 5 p.m.

83 HONDA - CB1100F, Super sport, red, white & blue, limited edition, good cond., many extras, best offer. 298-4148, after 6 p.m.

82 CHEVY SW - Malibu Classic, like new cond., $3,750; 78 Cadillac Fleetwood Brougham, like new, $3,900; Tires (2), 875 16 LT, 6 ply., Goodyear Trackers, 1 new, $40, another free. 475-4596.

AUTO RADIO - am only, essentially new, $15. Les, Ext. 2920.

RIMS - 13", 4 lugs; 14", 5 lugs; 16", 5 lugs. Ext. 2950.

80 MUSTANG - turbo, low mi., louvered hatchback, sunroof, mags, stereo cass. $3,300. Ext. 4525 or 924-7029 eves.

77 VW RABBIT - gas, 4 spd., stereo, 27k mi. on rebuilt, good cond., $1,100. Ext. 7983 or 289-9881, eves.

TIRES - 2 steel radial, 735-14" on rims, good cond., $10 each. Victor, Ext. 2395.

75 VW BUG - 73k mi., many new parts, good cond., asking $1,000. Hsin, Ext. 2014.

84 HONDA PRELUDE - mint, blue, a/c, am/fm stereo cass., sunrf, 5 spd. $7,900. 286-8814, after 6 p.m.

83 ESCORT - 4 dr, a/c, p/s, a/t, am/fm stereo cass., $3,600. Neil, Ext. 2023.

80 OLDSMOBILE OMEGA - 4 dr., sedan, 4 cyl, p/s, a/t, 85k mi., $1,500. Randy, 751-2634 after 6 p.m.

78 FORD PINTO - wagon, good body cond., needs eng. repair. $300. Ext. 4741.

78 MERCURY ZEPHUR - 6 cyl., a/c, a/t, 2 dr., sunrf, good cond., $1,600. Dean 399-1157 or 281-1862.

80 BUICK RIVIERA - all pwr., V8, low mi., mint cond. Asking $5,200. 589-6803.

79 TOYOTA COROLLA - 2 dr., 5 spd., new battery, 96k mi., good cond., $2,100. Wajid, Ext. 3405.

79 PLYMOUTH VOLARE - wagon, V6, p/s, p/b, brand new, a/t, roof rack, 72k, excel. in/out. Asking $1,795. Ext. 7505 or 689-8605.

80 CITATION - 4 dr., 4 cyl., a/t, p/s, p/b, a/c, am/fm, 74k mi., very good cond., $1,500. Ext. 7540 or 751-4491.

82 TOYOTA TERCEL - 5 spd., 4 dr., deluxe, am/fm cass., 53k mi., garaged, excel. cond., $3,950, Jag, Ext. 5080 or 751-1884.

83 PLYMOUTH TURISMO - 29k mi., 2.2L, 5 spd., sunrf, Shelby sport, stereo/cass., louvers, GT tires, mint cond., Ext. 2368 or 928-6654.

70 OLDSMOBILE CUTLASS - am/fm stereo, running cond., $350 or best offer. Colleen or Kevin 473-7793.

77 VEGA - black, 90k mi., 4 spd., $495, Bob, Ext. 7197 or 399-1679.

80 DODGE MIRADA - 70k, p/s, a/c, a/t, excel. cond., $3,000. Al, Ext. 4826 or 231-4613 after 5 p.m.

73 MERCURY COUGAR XR7 - p/s, p/b, a/c, p/w, am/fm cass w/pwr amp, custom wheels, good cond., $1,500. Barry, Ext. 5624 or 727-5956, eves.

Boats & Marine Supplies

82 CATALINA - 22' sloop, 7.5 hp Honda aux., many extras, make offer. Gary, Ext. 7518 or 589-5490.

SAILFISH - $350. Carl, Ext. 4420.

TANZER 22 - excel., glass, new sails, roller furling, shoal draft (K/CB), 6 h.p. Chrysler, $7,000. Ed, Ext. 7943 or 589-3992.

27' BRISTOL WEEKENDER - i/b diesel, 5 good sails, new running rigging, teak exterior wood. 941-9423.

2 CYCLE OIL - 100% synthetic, 100:1 mix ration, ½ pints, $3/ea. Mark, 735-9466.

12' V-BOTTOM BOAT - Sears alum., like new. $300. 473-0178, eves.

20' MAKO - 175 hp, trailer, winch, full canvas, many extras, like new $10,500; Mercury Outboard, 4 hp. $250, 286-1829.

21' VENTURE - 4 sails, swing keel, trailer, will consider joint ownership. Bill, Ext. 2103 or 331-4768.

BAYLINER - 16', cuddy cabin, used once, 85 h.p. eng., trailer, c.g. package, cover, garaged, show rm, extras. $7,000, firm. 289-3360.

Miscellaneous

TRANSFER SWITCH - for electric generators, absolutely last one, brand-new. Medina, Ext. 7636 or 654-3472.

WASHING MACHINE - GE, heavy duty 18, good cond. $75. Ext. 4745.

FISH TANK - 10 gal., hood w/light, outside filter, gravel, accessories, $30. Amy Hardy 298-8858.

BUNK BED - crew-quarters type with dresser and mattress, all new, heavy wood construction, immaculate. $400. Tom, Ext. 4084 or 878-1060.

CEMENT MIXER - 3.5 cu. ft., Sears model 713-7595, like new, $350, firm. Bill, 744-5135.

ROTISSERIE - broiler over, Sears, A-1 cond., $15. 924-3236.

CUSTOM ROD - Penn Internat'l 30, #50 rod blank. $350. 286-1829.

STEREO RECEIVER - am/fm stereo, $25. John, Ext. 4666.

CONTEMPORARY - couch and love seat, bold pattern, brown hues, very good cond. $300. Ext. 2529.

AVON COLLECTION - over 200 items, mostly MBs & a few BOs, bargain prices; Franklin Mint Collection, 70s, mostly SS & a few Bzs all in orig. cond. 395-1903.

RIDING LAWN MOWER - Craftsman, 26" cut, $75. Ext. 5400 or 924-4074.

COLOR TV - Toshiba 19", like new, 11 months old, still under warranty, $150; Kitchen hood, ideal for removing smell, like new, $25; small fan, $5. Detlef, Ext. 5508 or Edeltiand, Ext. 3112.

CAMERA - 35mm Canon A1 SLR w/F1.4 lens, $150; Canon 199A flash, $55; Canon lenses, Canon mount, Vivitar 70-150mm, $45; 2x multiplier, $15; Vivitar 28-85mm, F2.8 $45; Vivitar series 1, 28mm, F1.9 $50; Vivitar 55mm, macro, $75. 473-8387.

SOFA SET - 6 pc., $400; bunkbed, 9 pc., $500; single bed, complete $75; dresser w/mirror, $60; recliner, $75. 928-5737 after 6 p.m.

SOFA - excel. cond. Ext. 4192 or 751-7787.

13" TV - RCA color, good cond., $100. Wick, 924-0582, eves.

WATER FILTER - Aqua-Brite, counter-top model, new, $130. Mark, 735-9466.

BICYCLES - Men's 10 spd., $40; child's 20", high rise w/banana seat, $30. Ext. 7953 or 289-0532 after 6 p.m.

TV CABINET - dk. pine, fits up to 19" TV, costs $230, asking $75. Sue, Ext. 2050 or 289-6844 after 6 p.m.

REFRIGERATOR FREEZER - GE, 15 cu. ft, frost-free, excel. cond., almond, $375. 821-1215.

19" TV - Sony, portable, wood cabinet, $250. Ext. 3392 or 475-8330.

COAL STOVE - Franco Belge, good cond., $150. 878-2482, eves.

LIVING ROOM SET - 3 piece Herculon sofa, loveseat & couch, $180; coffee table & end table, all like new, $30. 698-5489.

ALUM. STORM & SCREEN WINDOW - Sears, 31"x55", new, $20. Ext. 4312.

AM/FM RADIO - 8 trk tape, Zenith Allegro, w/auto phono wedge & spkrs, $140. Jack, 924-4193.

POCKET KNIFE COLLECTION - some discontinued, some new, 30-65% below retail, USA made. Don, 281-2731, eves.

BEDROOM SET - solid maple, sturdy, five pieces, $200. 467-5811 after 5 p.m. or wknds.

MOVING SALE - girl's bicycle, 3-speed., excel. cond. $25; extra firm, queen size matress and boxspring, $100. Ext. 2054.

SONY STEREO - component system, 55w/channel, receiver, cass., equalizer, turntable, two extra large Jenson spkrs. $500. Rich, 281-1893.

BARBECUE GRILL - Weber 14", $10; TV, 12" b/w, $25. Ext. 4309.

TYPEWRITER - Royal, manual, office type, $20; GE stereo/phono/8 trk w/2 spkrs $25, both excel. 751-1884.

CHILD'S DESK - lift-top and chair, pine, excel. cond. Asking $35. Ext. 2863 or 821-1953, eves.

COLOR TV - 15" Sony Trinitron $90; UHF antenna and pole, $20; Ext. 7540 or 751-4491.

SNARE DRUM - w/stand. $25. Ralph, Ext. 2368 or 928-6654.

COMMODORE BOOKS - Comal handbook; Computes Mapping the 64 and Video Sound. $7/ea; Castro Convertible, rust and beige, good cond. $250. Rich, Ext. 4172.

FLOOR FAN - new, 3-speed, 20", w/auto temperature control. $20. Ext. 4134.

CB ANTENNA - w/tripod mount and coax cable, $25. Gil, Ext. 4043.

BICYCLE - BMX, cycle pro, shotgun, $80; snake, 4' King, $50, setup $10. 473-2473.

3M DISKETTE - 5¼", ds/dd, new, best quality, $10/10. Jim, Ext. 3372.

BOX FAN - 24", 2-speed, $15. Sandy, Ext. 3369.

CAMERAS - Konica TC and Nikromat FT&N camera systems w/accessories, excel. cond. Call 225-0178 after 6 p.m.

ANTIQUE FISHING POLES - two poles, both split bamboo. Walt, EXt. 7154.

CHANDELIER - contemporary, chrome, $50; grey stretch cover for bucket car seat, $15/2; Oster juicer, $15. Ext. 3701 or 751-8128 eves.

MOVING SALE - microwave oven, children's bikes, food processor, x-country skis, 130mm, 150mm, etc. Apt. 2A, Ext. 3590.

CRIB - $75; swing, $5; ping-pong table, $50; power head vacuum, $50. Sharon, 744-4594.

MOVING SALE - 13" color TV, $130; loveseat, $90; sofa, $60; folding bed w/mattress, $40; La Machine food processor, $40. Rajiv, Ext. 5161 or 924-1460 eves.

Car Pools

GREENPORT - or vicinity. Ed, Ext. 3293 or 477-2880.

SAYVILLE - driver wanted. M. Rosen, Ext. 2382.

PATCHOGUE - van pool, 2 seats open, leave name and number. Ext. 4669.

Lost & Found

LOST - tennis racket and sunglasses, behind tennis court on Tuesday, July 8. Walter, Ext. 5038.

FOUND - a ring in Tandem Bldg. 901A parking lot. Cora or Sandy, Ext. 4581.

FOUND - pair of prescription eyeglasses in case, in AGS parking lot near Bldg. 911. Ext. 4619.

Free

DOORS - combination storm-screen 32"x80" & 36"x80", good cond., all parts. 473-7667.

HAMSTER - with cage, carrying case and other accessories. Ext. 3701.

Real Estate

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

For Rent

N. SHIRLEY - 2 rm apt., furn., bdrm. w/skylight, kitchen, newly decorated, pvt. ent., util. inc., 5 min. from Lab. 1 person only, non smoker, no pets, security, $425. 281-8044.

AQUEBOGUE - 3 bdrm. ranch, fenced in backyard, town water, 20 min. to Lab, starting Oct. 1, 1986, all appliances. $750/mo. + util. 722-4644.

SOUTHAMPTON - new house, 2,500 sq. ft., 3 bdrms., 3 baths, $1,150 or summer rental. 360-3357.

EASTHAM - Cape Cod, 4 bdrm. home, comp. furn., 2 baths, washer/dryer, dishwasher, deck, short walk to beaches, wks open July & Sept. 722-3865.

BERKSHIRE - chalet 3 hrs. from NYC, 3 bdrms, 2 baths, fully equipped kitchen, elec. heat, deck w/spectacular view, near lake, hiking trails, ½ hr. from Tanglewood Theater (summer stock). 929-6946 after 6 p.m.

HILTON HEAD S.C. - 2 bdrm. condo, sleeps six, many extras, beach, pool, golf, tennis, taking Fall rentals. $400/wk, $200/4 days. 585-9149.

WADING RIVER - fully furnished, newly remodeled, lakefront property, 3 bdrms, SWR school, avail 9/86-6/87. Ext. 3822 or 929-6527.

SHOREHAM - avail. Oct. 1 for 1 yr. SWR schools, beach rights, 3 bdrms, 2 baths, l/r, d/r, fam. rm, eik, basement. Fully furnished with all appliances, piano, dog, cat. 744-3744.

SETAUKET - furnished, 4 bdrm. house, Sept. 1-Nov. 1, 1986. Ext. 2475 or 751-4539.

CATSKILLS - chalet, 3 bdrms, sleeping loft, fully furnshed, near Hunter Mt. Music Festival, golf, game farm, fishing, rafting, etc., will rent weekly or weekends. Call Judy or Ray, Ext. 3595 or Bea, Ext. 3642.

STONY BROOK - September, large 4 bdrm, 2½ bath, center hall colonial, all appliances, pool, central air, 2 car garage, near university and mall. $1,500/mo. 349-0077, eves.

MASTIC BEACH - late summer, 4 bdrm cape across the street from private beach, nice fenced yard, $750/mo. 349-0077, eves.

SHIRLEY - 7 mi. to Lab, 1 bdrm, eik, l/r, full bath, pvt. yard, deck, appliances, new w/w, city water, walk to stores/town pool. Working single/couple, ref/security. $525 + gas for stove/hot water. Ext. 3198.

TRAVEL TRAILER - 1984 24" Wilderness, self contained, will tow to location. Weekend, $135; week, $250. Chris, Ext. 4028 or 399-3732, eves.

For Sale

MANORVILLE - 3 brdm. ranch w/2 baths, l/r, d/r, eik, 2 car garage, full height cellar w/rec. room + extras. 878-6676.

SAYVILLE - 3-4 bdrms, cedar ranch, brick front, 2 full baths, gar., central a/c, eik, d/r, l/r, fam/rec. rm, lg. patio w/outside shower, appl., w/w, sidewalks, mint cond., walk to golf course and bay. $146,900. 589-2681.

OAKDALE - Idle Hour section near water, 2 story tudor, 4 bdrms, 2 baths, garage, attached full apartment with private entrance, ½ acre on dead end street. $179,900. 363-6940, eves.

SHOREHAM - spacious 4 bdrm, 2½ bath, colonial, eik, l/r, d/r, fam/rm w/fp, 2 car garage, bsmt, ¾ acre, garden, SWR sch. dis., $195,000. Ext. 2945.

RIDGE - north of Rte. 25 - 1.12 acre bldg. plot, established community, mostly cleared, level. Asking $47,900. 924-3236.

MASTIC BEACH - 5 rm. house, new heating system, ¼ acre, nice neighborhood, $66,900. 744-2821.

MATTITUCK - 2 bdrms. ranch, fin. bsmt. w/2 extra bdrms., bath and rec. room, new custom kitchen, new appl., new bath, 16x12 screened porch w/skylight, 18x12 deck, deeded water rights. $175,000. D. Hardy, Ext. 3389 or 298-2858.

ST. JAMES - over 1 acre, convenient location, good potential, custom ranch, l/r w/fp, 3 bdrms, 2 baths, partial bsmt. Asking $189,000. Owner 584-5039 or 751-7389.

Wanted

RIMS - Ford 15", need 4. Joe, 929-8321.

GO KART - used. Ron, Ext. 3499.

FISHING ROD - and reels, salt water. Ext. 2171.

BICYCLE WHEELS - 16" and tires, ball bearing, one front, one rear with coaster brake. Ext. 4475.

HOUSEKEEPER - 1-5:30 p.m., Mon.-Fri., cooking, shopping, child care, non-smoker, must have own car. 744-4611, after 7 p.m.

GIRL'S BIKE - 16" w/high handlebars, training wheels, reasonable price. Mark or Audra, 286-4150.

LAWN MOWER - cheap, reliable, power mower; Infant car seat to borrow from Aug. 4 to Aug. 14. Jim, Ext. 7990.

SOFTWARE - Apple II, S.A.T. Ext. 2543.

GOLF CLUBS - complete set, men's. John, Ext. 7671.

HOME - for all white spayed cat, also kittens with shots. 744-2821 or 928-9537.

PEOPLE - whale-watching group, Okeanos charter boat leaves Montauk July 17 1:00 p.m. returns 5:30 p.m. $21.25, adult or $12.75, child. George Hendrey, 744-3272.

TRAINS - Lionel, American Flyer, accessories, any cond., brings good price. Carole, Ext. 3362 or 924-4097, eves.

70-72 MONTE CARLO - good body, engine not important. Dick, Ext. 3499 or 589-9103.

VOLLEYBALL PLAYERS - serious doubles players, sand preferred. Jim, Ext. 7990.

Services

FIRESIDE CHIMNEY SWEEP - fireplace, wood, coal & oil flues, caps, pipe, relining, Lab discounts. Mike, 821-9690.

HORSE BOARDING - pvt. house, large turn out and near trails. Paul, 924-8143 after 5 p.m.

BRICKWORK - walks, patios, brick & sand, belgium block, landscaping ties, swimming pool. Tony, 698-9274.

KAYAK LESSONS - sea kayak, slalom recreational, L.I. Sound, bay's tidal inlet, white water, basic to advance. Tim, 281-7873.

PARTY TENTS - for rent, we setup, take down. Fred Kuehl, Ext. 7947 or 4823, beeper 792 or 588-2268.

BABYSITTER - experienced mother, my home, Shoreham, part or full time. Amy 821-3373.

LAND CLEARING - using excellent rake on JD 450 track loader; $55/hr. with operator. Tom, Ext. 4084 or 878-1060.

MAGICIAN - discount to Lab employees, balloon sculpture, avail., children's shows our specialty. 395-3963 after 6 p.m.

ODD JOBS - brick, cement walks, patios, stoops, etc. Frank, 744-9573.

Ads left out of this issue due to lack of space need not be re-submitted to appear in the next issue.

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