BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

PET Reveals New Views of Alcohol and Cocaine Abusers

"Thirty-five is on its way," announced Nora Volkow to her coworkers, as she hung up the phone.

The call had alerted Volkow, a Medical Department researcher at BNL's Positron Emission Tomography (PET) facility, that 35 millicuries of fluorine-18 fluorodeoxyglucose (^{18}FDG) was being transported from BNL's cyclotron to one of the Lab's PETT scanners.

BNL's cyclotron-PET program is headed by Alfred Wolf, Chemistry Department. Wolf's team uses ^{18}FDG to study brain chemistry and how it is altered by toxic substances, such as alcohol and cocaine.

Because ^{18}FDG behaves similarly to glucose, which the brain uses for energy, it is taken up by the brain. Its relatively long half-life —110 minutes — causes it to decay more slowly than other radiotracers, making it the most widely used tracer in PET research today.

The method for synthesizing ^{18}FDG was developed by BNL chemists in 1976. The radiotracer is synthesized in the Chemistry Department's cyclotron laboratory, which is dedicated to the development of new radiotracers.

Viewing the Alcoholic Brain

Lying quietly in the dimmed light of the PETT VI room earlier this month was a recovering alcoholic. Two intravenous tubes were attached to his right arm — one drawing samples of his blood every two seconds, the other ready to supply the ^{18}FDG when it arrived.

A whirl of activity preceded the arrival of the tracer. With stopwatches dangling around their necks to time precisely the instant of the ^{18}FDG injection, the PET staff looked like coaches at a track meet.

Minutes later the tracer arrived and Volkow started the countdown. "Three. . . two. . . one. . . now!" The ^{18}FDG was injected as the stopwatches clicked on. The tracer began flowing through the subject's bloodstream on its way to his brain.

The subject of a study to determine the effects of chronic alcoholism on the brain, the patient's brain was scanned when he was sober, and again after he had consumed three to four ounces of 95 percent pure alcohol diluted with diet Sprite.

Patients in the first stage of treatment for alcoholism, called detoxification, can drink some alcohol. It is in the second stage of recovery, called rehabilitation, that alcohol is strictly forbidden.

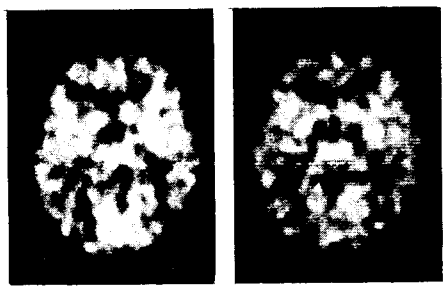
Images of Activity

Unlike x-rays, which reveal only structure, PET reveals biochemical changes in tissues by measuring the concentration of a positron-emitting substance, such as ^{18}FDG.

By comparing its uptake by the brain cells of nonalcoholics with those of alcoholics, Volkow hopes to find whether something in the brain predisposes people to alcoholism and, if so, to develop new treatments for the disease.

With the subject's head positioned inside the ring of the PETT VI scanner, the circular array of detectors lining the ring recorded the energy emitted as ^{18}FDG decayed.

PET produces colored images, "slices" through the brain (see scan), mapping the glucose metabolic activity in brain tissue. In the PET scans pictured, the grey areas represent reduced metabolic activity and lighter areas greater activity.



Two PETT VI scans of an alcoholic's brain. In the scan at left, the subject had not been administered any alcohol. The lighter color indicates a higher level of metabolic activity. The scan on the right was taken after alcohol was administered. The grey areas indicate reduced metabolic activity.

Roger Stoutenburgh

Pictured with a patient at PETT VI are (from left) Noelwah Netusil, Renée Moadel and Nora Volkow.

In some intoxicated subjects, Volkow's PET scanning has shown that blood flow increases through most of the brain, but decreases to the cerebellum — the part responsible for motor coordination. "We are looking at brain function and relating it to behavior," said Volkow.

A decrease in the amount of blood supplied to the cerebellum would explain why many drunks stagger and have trouble walking a straight line.

However, not all subjects show a decrease in cerebral blood flow and impairment of motor coordination. "It's clear individuals respond differently to alcohol," Volkow said.

All in the Family?

The first step in Volkow's research on alcoholism is to detect the differences between nonalcoholics and alcoholics. The second step will be to study the brains of subjects born of alcoholic parents.

Noting that the brains of these subjects, who themselves are not alcoholics, often respond like the brains of alcoholics, Volkow said, "There is a subgroup among alcoholics whose alcoholism is genetic."

Interestingly, children whose fathers are alcoholic display brain function typical of alcoholics, while children with alcoholic mothers do not. Fathers, not mothers, may be the genetic culprit.

Cocaine in the Brain

Volkow and her colleagues are also using PET to investigate cocaine addiction, trying to answer the questions: What does cocaine do to the brain that makes the drug so addictive? And, what is the extent of cocaine toxicity to the brain?

Preliminary studies on the effects of cocaine on cerebral blood flow show that, as with alcohol, there is a reduction in circulation. Volkow hypothesizes that cocaine abuse may destroy brain tissue because it induces the constriction of blood vessels.

PET is also shedding light on the role of dopamine in the brain — a chemical involved in reinforcing vital behaviors, such as eating and reproduction. Cocaine abuse seems to block the action of dopamine and to decrease — maybe irreversibly — the number of dopamine receptors in the brain.

If chronic cocaine abuse is shown to cause a deficiency of dopamine in the brain, that finding would support the treatment of cocaine abuse with drugs that enhance dopamine activity in the brain.

This research could also have important implications for understanding and treating Parkinson's disease. Parkinson's victims are deficient in dopamine. The drug L-dopa, first used at BNL to treat Parkinsonism in the early 1960's, is converted to dopamine in the brain, relieving the symptoms of the disease. — Alexandra Biesada

Award to Third Chasman Scholar

Roger Stoutenburgh

On Wednesday, August 10, the Scholarship Committee of Brookhaven Women in Science (BWIS) proudly presented a certificate and check for the third annual Renate W. Chasman Scholarship for Women to Nancy A. Budka (second from left) of Smithtown. Committee members include: (from left) Patricia Webster, Harriet Martin, Committee Chairwoman Eva Bozoki, Ruth Kempf, Mary Kinsley and Penny Baggett. Absent from the picture were Alyce Daly and Gail Williams.

Budka will use the $1,000 towards her resumed education to become a biology teacher. Having been graduated from Suffolk County Community College last May, Budka is now a junior majoring in biology at the State University of New York at Stony Brook.

The Scholarship was established for women who have returned to college for technical or scientific degrees on the undergraduate or graduate level. It honors the memory of the late BNL Physicist Renate Chasman. Tax-deductible contributions may be made to the Chasman Scholarship Fund, P.O. Box 183, Upton, N.Y. 11973.

Health Physics Training for the 1990's

On Monday, August 15, the Safety & Environmental Protection (S&EP) Division sponsored a one-day workshop to discuss the future of health physics education — and BNL's role in providing training for health physics master's degree students.

On and off since 1949, but continuously since 1954, BNL has been offering an annual summer training program for students who have just completed or are working towards a master's degree in health physics.

Frank Marotta, who heads S&EP's ten-week Health Physics Training Program, organized the workshop. He invited representatives from the 11 U.S. universities that offer a health physics master's degree, to discuss how best to expand upon the academic course work in training students for careers overseeing radiative materials. Two of the university representatives themselves were graduates of S&EP's training program, one in the 1950's, another in the 60's.

Among the 20 people in attendance were representatives from the Department of Energy's Office of Educational Research and Oak Ridge Associated Universities. Other BNL'ers at the workshop included S&EP Head W. Robert Casey; Alan Kuehner, S&EP; Donald Metz, head of BNL's Office of Educational Programs (OEP); Karl Swyler, OEP; and Charles Meinhold, head of the Radiological Science Division, Department of Nuclear Energy.

The Dangerous 3-Ds — Drinking, Driving and Denial

"I'm not an alcoholic — I only drink on weekends. What else are the weekends for?"

"I'm a party animal, and drinking and partying go together like vodka and orange juice."

"I always have a few too many, but everyone else drinks at least as much as I do — if not more."

"I have a good tolerance for alcohol, so driving after drinking is no problem for me."

"If the cops weren't parked down the street from the bar, I wouldn't have been picked up for DWI."

Can you hear yourself, a coworker, friend or family member speaking in these quotes? If so, then you or they may have not one, but three problems.

Drinking, driving while under the influence of alcohol and denial.

More of a Problem

"If you are denying that you have an alcohol problem, then you have more of a problem than you think," explains clinical psychologist Jannifer Hill, head of the Employee Assistance Program (EAP). "If you are denying that someone you know drinks too much, then you are not protecting them — you are enabling them to hurt themselves and others."

EAP is an on-site mental health counseling service, confidential and free of charge to BNL employees. It was established in 1981 to help employees with emotional and personal problems, which can affect their work. As the EAP psychologist, Hill evaluates employees' problems, provides information, refers employees to outside counselors, groups and treatment programs, and does short-term therapy.

In addition to addressing personal, emotional, interpersonal, social, marital and family difficulties, EAP will help employees troubled with drug and alcohol abuse problems.

Daily, Weekend or Binge Drinking

"Most people think that they couldn't be alcohol abusers if they only drink on the weekends, but they're wrong — and are possibly denying the truth about themselves," says Hill.

The American Psychiatric Association recognizes three patterns of alcohol abuse: daily drinking of large amounts, heavy drinking limited to weekends and drinking binges between periods of sobriety. "While patterns of alcohol abuse are easy to spot in others, your drinking pattern may be hard for you to see," says Hill.

And, while drinkers who are physically dependent upon alcohol are easy to brand as alcoholics, those who abuse alcohol but are not dependent are harder to label.

— courtesy of Long Island Mothers Against Drunk Driving (MADD).

"It is hard to distinguish between alcoholism and heavy drinking," explains Hill, "However, in the case of alcohol abusers, labels don't matter. What matters is, if drinking causes problems in your personal, family or professional life, then you have a problem with alcohol."

Problems that an alcohol abuser may encounter include complaints and disagreements about their drinking; hangovers and blackouts; difficulty with personal, social and professional responsibilities; health complications; absenteeism and poor job performance; and brushes with the law — including DWI convictions.

Don't Drink & Drive

DWI means Driving While Impaired or Driving While Intoxicated. Under New York State vehicle and traffic law, the first is a violation, the second a misdemeanor. Driving while impaired means that you have a blood alcohol level of 0.05-0.09%; driving while intoxicated means a blood level at or above 0.10%.

According to Officer Mark Ryan, Suffolk County Police headquarters, drivers are not pulled over at random for DWI — contrary to what many who have been charged with DWI think. A police officer must have sufficient cause — such as having witnessed irregular driving or a traffic violation — to stop a driver. After the driver fails motor coordination and a simple breath test given on the spot, he can be arrested for DWI.

The state-mandated breathalizer test to determine blood-alcohol level is administered at the police precinct; if you refuse to take the test, your license will be suspended or revoked according to law.

The average test result is 0.16% — well above the 0.10% intoxicated threshold. The driving drinkers who are responsible for the most traffic deaths, however, are those with 0.08-0.12% blood-alcohol levels — bordering between impaired and intoxicated.

STOP DWI

According to John Williams, the spokesman for Suffolk County District Attorney Patrick Halpin, the first DWI charge is usually plea-bargained down to a charge of impairment — not because the person charged with the crime wasn't intoxicated, but because the court system is too crowded.

Regardless, it still can mean probation for up to one year, up to a $250 fine, a three-month's suspended driver's license and the recommendation to enroll in a Department of Motor Vehicle's drinking driver course. In addition, attorney's fees average $1,500 and, as an assigned risk, auto insurance goes up to at least $2,000.

A second DWI is a misdemeanor, meaning possibly up to one year in the Suffolk County jail, up to three years' probation, a $350-500 fine and a driver's license revocation for six months.

The third DWI charge within ten years is a class E felony. The punishment for this crime is possible incarceration for a minimum of 1-3 years and a maximum of 2-4 years in the State penitentiary, five years' probation, a $500-1,500 fine and a revoked driver's license for one year.

Ninety five percent of the approximately 10,000 people a year arrested for DWI in Suffolk County are convicted — and, of those, 85% are men.

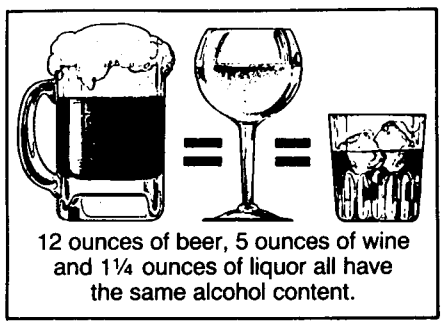
So says Eileen Kremers, the coordinator for Suffolk County's Special Traffic Options Program (STOP) against DWI. STOP DWI is an enforcement, education and rehabilitation program that was established in every county in New York State by the Albany legislature in 1981; in Suffolk County, it is funded by the $2.5 million a year brought into the County by DWI fines.

Symptom of a Problem

"DWI is a very serious symptom of a very serious problem," says Hill, "just as an alcohol problem is a symptom of an underlying problem with handling emotional issues.

"It's OK to have a problem — the first step to overcoming the problem is acknowledging and accepting it," Hill states. "It is unacceptable, however, to endanger your life and other peoples lives and property because you refuse to admit you have an alcohol problem, or, at the very least, that you would have a problem driving because you drank too much."

In addition to counseling about problem drinking, Hill can recommend Alcoholics Anonymous, private counseling or rehabilitation programs, as appropriate.



— courtesy of Long Island Mothers Against Drunk Driving (MADD).

Hill can be reached through the EAP office, Ext. 4567. The EAP operates according to standard professional ethics in protecting communications with employees seeking services and in maintaining their anonymity. — Marsha Belford

Inside Info

With the retirement of **Arnold Benson** on July 31, after more than 41 years of service to the Lab and 14 years as a general supervisor in the Plant Engineering Division, **Michael Cardarelli** became Buildings Maintenance & Services General Supervisor on August 1.

Cardarelli came to the Lab in March 1977 as a cabinetmaker, became a wood model maker in June 1985 and was promoted to Cabinet Shop Supervisor in June 1986.

Taking Cardarelli's place as Cabinet Shop Supervisor is **Bruce Laakmann**. He came to Plant Engineering in 1978, became apprenticed to the Cabinet Shop in 1979 and was named a cabinetmaker in 1983.

•

Nuclear Engineer **James Guppy**, head of the Reactor Analysis Division in the Department of Nuclear Energy, was elected to a three-year term on the board of directors of the American Nuclear Society (ANS), ending in 1991.

As one of 30 board members, Guppy will oversee the governing of the 15,000-member, not-for-profit scientific and educational society. ANS publishes the trade journal *Nuclear News*, four scientific journals and a monthly members' newsletter.

•

Tina Hale works in the Budget Office and thinks a lot of her coworkers there. That's why she wrote a letter to radio station WALK on July 27, nominating the Budget Office as WALK Office of the Day. But, she was still surprised on Tuesday, August 2, to receive a phone call from WALK, informing her that her letter had been picked at random and Budget was indeed the Office of the Day. The names of all 15 Budget Office staffers were announced on the air, and a couple of songs were dedicated to the group. They'll also enjoy cinnamon rolls from T.J. Cinnamon's Bakery some morning soon. And for taking the time to write, Hale received a $40 gift certificate for dinner for two at the Maine Maid Inn in Jericho.

Tour Season Winding Down

If you'd like to start your own chain reaction — with ping pong balls — you can still do it this summer by visiting the Exhibit Center during one of the two days left in the Summer Sunday Tour Program.

The full tour program takes about two and one half hours, including the audiovisual program "Quest," a guided bus tour to the Exhibit Center, a guided walking tour through there, and an optional visit to the Danish House. To enjoy the tour program, just come to Berkner Hall any time on August 21 or 28, between 10 a.m. and 3 p.m.

Weight Watchers

Since Weight Watchers came on site in January 1986, 31 BNL'ers have become lifetime members — which means not only have they attained their goal weight, but they have also maintained it.

If you wish to join them, join Weight Watchers: Registration for the fall sessions will be on Tuesday, August 23, from 11 a.m.-1 p.m. and on Wednesday, August 24, from 4:30-5:30 p.m., both in the Berkner Hall lobby. The cost is $50 for continuing members and $25 for new ones, as the Lab is splitting the fee with them.

The eight-week sessions begin on Tuesday, September 6, and Wednesday, September 7, from 5:15-6:30 p.m., in the Safety & Environmental Protection conference room, Bldg. 535.

team safety

Week five of the Team Safety program* begins, and eight of our teams are more than halfway to the dining hall. No additional errors to report, although there have been several close calls at the plate. Locker room talk is centering on the menus. Keep your minds on safety!

The Team Advisory Committee will meet with the Commissioner next week to review rules and exceptions. The rumor is that the Commissioner is beginning to worry about paying the tabs.

Keep up the safe work!

Twenty-six teams are participating in the Lab's Team Safety program. As two have incurred lost-time injuries, 24 teams are now in the running to be the first to be rewarded for their safe practices with a pizza or deli luncheon. The time goals, which have been established for the teams based on their previous lost-time frequency, range from eight to twelve weeks.

Coming Up

Anyone with an interest in music or in modern scientific reasoning will enjoy the show to be presented by Vladimir Chaloupka, on Tuesday, August 30, at 8:30 p.m., in Berkner Hall. Chaloupka, Associate Professor of physics at the University of Washington, will draw on the disciplines of mathematical logic, music, art, physics, biology and religion for the lecture and demonstration he is giving on the occasion of "GLUE 88," a high energy physics conference being held at BNL that week.

Want to Vote? Registration Forms Available at P.O.

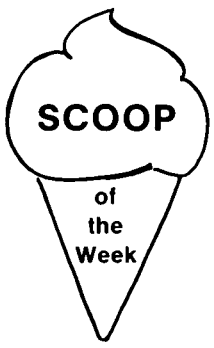
If you're eligible to vote in the upcoming general election on Tuesday, November 8, but are not registered, you have until October 11 to either mail or hand deliver your voter registration form to the Board of Elections.

Voter registration forms are available at the on-site U.S. Post Office. You can also get them at libraries and the Town Clerk's office.

When submitting a form, be sure it is filled out completely — such omissions as failing to fill in your date of birth or to indicate whether you choose to enroll in a particular party will hold up your registration. And look carefully — the form must be signed five times.

If you have further questions, you can contact the Suffolk County Board of Elections, Yaphank Avenue, Yaphank, at 282-1500.

Scoop of the Week



The seventh week of the Scoop of the Week contest is a triple scooper: Virginia Pond, Biology Department, earned one scoop for reminding Bulletin readers about BNL's historic association with the Lindenmere estate. Alyce Daly, Department of Nuclear Energy (DNE), was awarded one for reminding Bulletin readers to register to vote in the upcoming Presidential election. And Carmen Falkenbach, DNE, gets a scoop for pointing out that Labor Day is Monday, September 5 not 6, despite what some Lab-issued calendars say.

Tipsters who scoop the Bulletin's informed sources can be rewarded for their news and feature tips with scoops of frozen yogurt all summer long. If a story is published based on your idea, you'll be awarded an official certificate for soft-serve yogurt, redeemable anytime at the Cafeteria. To enter the Scoop of the Week contest, call Ext. 5053 or write the Bulletin, Bldg. 134, with your hot tip.

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Astronomical Society

See stars at 8:30 p.m. tonight — through the Astronomical Society's telescope in their on-site observatory. Admission for non-members is $1. Please call Keith Power, Ext. 7772, beforehand to check whether or not the weather is suitable for observing.

Aviation Club

The Aviation Club is organizing a trip to Quebec, Canada, using a number of four-seat airplanes. Departure will be on Tuesday, September 27, returning on September 28. This trip is open to BNL employees and family members. If interested, contact Lou Addessi, Ext. 4672, before August 31.

Calendar Correction

In planning your Labor Day weekend, beware of the dates on the approximately 4,000, junior- and senior-sized Calendar Pal wall calendars issued by the Laboratory!

Labor Day really is Monday, September 5 — contrary to the Calendar Pal's "advance memo," which previews the first two weeks in September and is attached to the bottom of the August calendar.

While the advance memo correctly cites Sunday as September 4, the very next day, Labor Day Monday, has been miscounted as September 6. Hence, Tuesday through Sunday of the second week in September are also incorrectly numbered. The full September calendar, however, is correct.

Arrivals & Departures

Arrivals

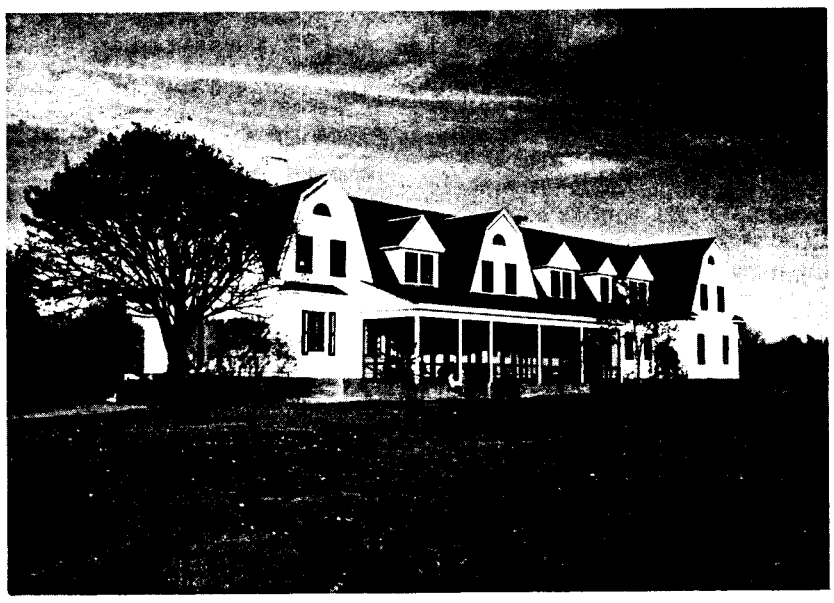
John C. Biemer ..... Plant Eng.
Kurt V. Mikkelsen ..... Chemistry
Aditya K. Sambamurti ..... Physics

Departures

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

David J. Jhirad ..... DAS
Jon D. Melton ..... Chemistry

Remembering the Lindenmere



The Lindenmere Hotel in 1947

Recent news stories about the Lindenmere estate in Center Moriches prompted this letter from Virginia Pond, Biology, who has been employed at the Lab since 1948. As the letter explains, the Lindenmere, which served as the personal estate of Imelda Marcos from 1982-86 and is now on sale for an asking price of $4.5 million, played an important role in BNL's early days.

Editor, Brookhaven Bulletin:

I wonder how many Brookhavenites realize that the highly publicized Long Island estate known as the Lindenmere, which was recently owned by Imelda Marcos, once was provided housing for early BNL employees.

The estate was then owned by a retired couple, know to those early tenants as "Mama" and "Papa" Amende. The Laboratory provided transportation to and from work since in those days, in the early post-WWII period, few people were able to purchase new cars. Once a week, Papa Amende would drive us to Center Moriches to the movies if we wished.

The couple also provided delicious meals; it was a delight to be treated to the aroma of fresh-baked rolls as we entered the premises each evening (Papa had owned a bakery). And speaking of fragrances, the beautiful lindens that lined the long driveway leading to the main house provided a delightful sweet scent when in bloom.

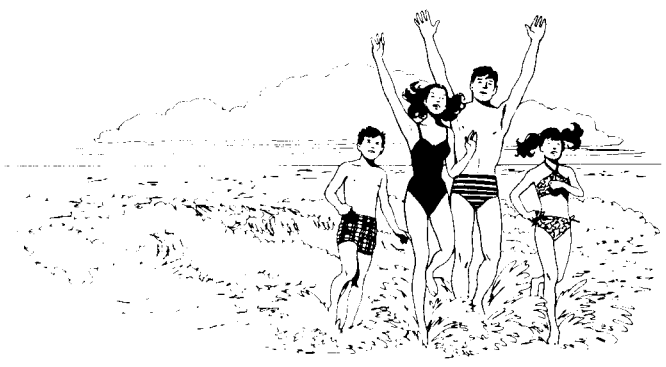
Most of us were single, as I recall (married couples already arranged to live in apartments or houses before joining the BNL family or else already lived locally). We represented a true cross-section of the Laboratory: technicians, scientists, accountants, geologists, clerks, nurses, engineers. Back in those days, some 40 years ago, everyone knew everyone —or else knew of them. Friendships were formed at the Lindenmere —and at least two marriages that I know of: Buck Rubinson and Ann Carbone, and Ray Davis and Anna Torrey.

I am not sure when BNL discontinued its association with the Lindenmere. I know I was the last Brookhaven employee to leave after having lived there for about three years. **— Virginia Pond**

Summer on Long Island
Crossing the Bays by Ferry

To Fire Island

Cars can be driven onto Fire Island only at two points: Smith Point County Park at the eastern end and Robert Moses State Park at the western end. Public access to the rest of Fire Island is by one of the ferries crossing the Great South Bay from May to November.



• **Fire Island Seashore/Sayville Ferry** — *Sayville to Barrett Beach, The Pines, Cherry Grove, Sailors Haven & Sunken Forest.*

River Road — Fire Island Visitors Center
South Sayville — 597-6183
589-0810, -8980

Parking: $5 Mon.-Thu., $6 Fri.-Sun.

Sailing times: Ferries leave from Sayville for each destination every hour beginning 7 a.m. Mon.-Fri., 8 a.m. Sat.-Sun.; the very last boat off Fire Island is at 10 p.m. from Cherry Grove Mon.-Fri., 12 midnight Sat.-Sun.

Crossing time: 20 minutes.

Rates: Round-trip per person $4.75 Barrett Beach, $9 The Pines & Cherry Grove, and $7.50 Sailors Haven & Sunken Forest.

• **Fire Island Ferries, Inc.** - *Bay Shore to Ocean Bay Park, Seaview, Ocean Beach, Dunewood, Fair Haven & Saltaire.*

Maple Avenue — Ocean Beach Ferry Landing
Bay Shore — Ocean Beach
665/6-3600 — 583-5037

Parking: Mon.-Thu. $6, Fri.-Sun. $8.

Sailing times: to each destination, 12 trips Mon.-Thu., 7 a.m. to 9 p.m., last return trip 10:45 p.m.; 15 trips Fri.-Sun., 7 a.m. to 11:25 p.m. Fri., last return 11:15 p.m.; 7 a.m. to 8:05 p.m. Sat. and 7 a.m. to 9:10 p.m. Sun., last return 10:45 p.m.

Crossing time: 30 minutes.

Rates: $9.50 round-trip per adult, $4.75 children 12 and under.

• **Davis Park Ferry Company, Inc.** — *Patchogue to Watch Hill & Davis Park.*

Departures for Watch Hill - West Avenue, Patchogue

Departures for Davis Park - Brightwood Street, Patchogue 475-1665

Fire Island Visitors Center
597-6455

Parking: For Watch Hill, free parking at Fire Island National Seashore parking lot; for Davis Park, Town of Brookhaven parking lot, free for residents, $10 for non-residents.

Sailing times: To Watch Hill, 9:30 a.m. to 4:45 p.m. Mon.-Fri., last return boat 5:30 p.m.; Sat.-Sun. 8:30 a.m. to 7 p.m., last return boat 9:20 p.m. To Davis Park, 7:30 a.m. to 10 p.m. Mon.-Fri., last return boat 8:45 p.m. Mon.-Tue., 9:30 p.m. Wed.-Thu., 10:45 p.m. Fri.; Sat.-Sun. 7:30-12:45 a.m., last boat 12:45 a.m. Sat., 9:15 p.m. Sun.

Crossing time: 20 minutes to Davis Park, 25 minutes to Watch Hill.

Rates: one-way trip $4.25 per adult, $2.50 per child.

To Shelter Island

Between Long Island's two forks lies Shelter Island, which you can get to by boat.

• **South Ferry** — *From North Haven on the South Fork.*

Ferry Road — South Ferry Road
Shelter Island — North Haven
749-1200

Sailing times: Every ten minutes, 6 a.m. to 1:45 a.m. from Shelter Island.

Crossing time: Three minutes.

Rates: $4.50 car & driver one-way/$5.50 same-day round-trip; 50¢ each passenger.

• **North Ferry** — *From Greenport on the North Fork.*

North Ferry Road — Wiggins Street
Shelter Island — Greenport
749-0139

Sailing times: Every 15 minutes, 6 a.m. to midnight Sun.-Thu. from Greenport, to 12:45 a.m. Fri.-Sat.

Crossing time: Eight minutes.

Rates: $4.50 car & driver one-way/$5.50 same-day round-trip; 50¢ each passenger.

Locker Rooms To Be Renovated

Major renovations are scheduled to begin in the women's pool locker room on Monday, August 22, and work will start in the men's locker room shortly thereafter. The renovations are expected to take about one month.

While the locker rooms will remain open, for your safety and the work's progress, you are asked to follow posted instructions. BERA thanks everyone in advance for their patience during this period of inconvenience.

Cafeteria Menu

Week of August 22

Monday, August 22

Tomato rice soup	(cup)	.75
	(bowl)	.95
Walnut chicken over rice		3.10
California quiche w/1 veg.		3.00
Salisbury steak w/1 veg.		3.05
Hot deli: Baked ham	(bread or roll)	2.85
	(hero)	2.95

Tuesday, August 23

Bavarian lentil soup	(cup)	.75
	(soup)	.95
Beef, macaroni and tomatoes		3.10
Fried fish amandine w/1 veg.		2.95
Hot deli: Corned beef	(bread or roll)	2.85
	(hero)	2.95

Wednesday, August 24

French onion soup	(cup)	.75
	(bowl)	.95
Roast top round of beef w/1 veg.		3.10
Pork El Paso w/rice		3.10
Cajun seafood rice		3.05
Hot deli: Breast of turkey	(bread or roll)	2.85
	(hero)	2.95

Thursday, August 25

Broccoli supreme soup	(cup)	.75
	(bowl)	.95
Chicken breast Parmesan		3.10
Spaghetti w/meat sauce & garlic bread		2.95
Chef's salad		2.35
Hot deli: BBQ pork hero		2.95

Friday, August 26

Egg drop soup	(cup)	.75
	(bowl)	.95
Herbed meatballs w/rice		3.10
Turkey vegetable Oriental over rice		3.05
Fillet of fish Florentine w/1 veg.		2.95
Hot deli: Pastrami	(bread or roll)	2.85
	(hero)	2.95

Classified Advertisements

Placement Notices

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

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

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

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

2926. LABORER - Plant Engineering Division.

2927. SECRETARIAL POSITION - Requires knowledge of office practices and excellent secretarial and communication skills. Duties will include technical typing, correspondence, travel arrangements, and file maintenance. Word processing desired. Structural Analysis Division, Department of Nuclear Energy.

2928. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent and a knowledge of Laboratory policies and procedures. Duties will include preparation of manuscripts, reports, proposals and correspondence on an IBM/PC. Additional duties include travel and meeting arrangements. Previous Word Perfect experience desired. Medical Department.

2929. OFFICE SERVICES POSITION (temporary) - Requires knowledge of office practices. Familiarity with MICOM word processing and IBM/PC helpful. Duties will include distribution of mail, typing and telephones. Budget Office.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2930. TECHNICAL POSITION - Requires AAS in mechanical technology or the equivalent experience. Must have experience in the operation and maintenance of large capacity process water cooling systems. This includes pumps, cooling towers, heat exchangers, and pneumatic and electric controls. National Synchrotron Light Source Department.

2931. ENGINEERING POSITION - Requires a BA level degree or higher, with a background in experimental physics or electrical engineering. Will assist in collection and organization of data, data analysis and the development of applications software related to magnet performance. Experience in FORTRAN and BASIC and in the use of computers, (PC s, VAX, etc.) in a laboratory environment is required. Accelerator Development Department.

Motor Vehicles & Supplies

87 FORD BRONCO XLT - loaded, 684 pkg., 16k mi., warranty, excel. cond., $16,200. Ext. 3341 or 981-9474.

87 CHEVY SPRINT - 5-spd., am/fm stereo cass., good cond. Walter, Ext. 3499 or 757-6392.

86 HONDA GYRO SCOOTER - very low mileage, auto-start, basket, excel. cond., $575. Ext. 2434 or 589-4407.

86 MALLARD FIFTH WHEEL TRAVEL TRAILER - a/c, awning, screen room, microwave, used twice, must sacrifice, $12,800. 475-8087.

86 SUBARU GL10 - 4wd, sw, 5-spd., loaded, asking $10,950. Henry, Ext. 4547 or 727-7227.

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

84 DOLPHIN MINI MOTOR HOME - dual air, sleeps 5, $13,000 neg., excel. cond. Kurt, 281-1378 after 6 p.m.

84 GRAND PRIX - am/fm radio, a/c, p/s, p/b, very good cond., asking $5,500. Wendy, 727-1799.

84 HONDA CIVIC - station wagon, a/c, am/fm cass., 77k mi., excel., $4,200. 331-9680.

84 CADILLAC COUPE DeVILLE - rebuilt eng., all new parts, asking $5,500. 289-4980.

83 BMW 528e - excel., $13,500; 80 Honda Accord, hatchback, a/t, $1,850. Ext. 2201 or Ext. 4898 eves.

83 CHEVY S-10 - 4-spd., very good cond. 325-0447 after 6 p.m.

83 TOYOTA COROLLA - rwd, 4-cyl., a/t, 2-dr. sedan, p/b, a/c, excel. cond., 48k mi., $4,000. Ext. 2944.

82 FORD ESCORT - 91k mi., a/c, am/fm cass., new clutch, exhaust, good cond., $900. Ext. 4600 or 3079.

82 PLYMOUTH RELIANT - station wagon, 4-cyl., a/t, p/s, p/b, am/fm cass., 75k mi., $2,500. Yosepha, Ext. 3403/7280 or 3129 eves.

81 DATSUN 280ZX - 2-dr., 5-spd., 85k mi., T-roof, all options. Gary, Ext. 3326 or 549-8252 after 6 p.m.

81 SKYLARK - 4-dr., blue. Ext. 5286.

80 CHEVETTE - 4-dr., hatchback, a/t, am/fm, good cond., good tires, $600. Ext. 2055 M, W, Th after 9.

80 HONDA ACCORD - 4-dr. sedan, very clean in and out, doesn't run, best offer. 874-3237.

80 PLYMOUTH HORIZON - rebuilt eng., trans. needs work, $500 neg. 286-1183 after 5 p.m.

80 TOYOTA COROLLA - 2-dr. sedan, best offer. Ext. 2686/5716 or 4883.

80 BUICK SKYLARK - orig. owner, power, a/c, a/t, $1,500. Ext. 2103 or 331-4768.

80 BUICK SKYLARK - 4-dr., full power, excel. body and mechanical, orig. owner, $1,500. Ext. 3593.

80 SUZUKI RS-175 - limited edition, good cond., asking $275. Phil 286-1348.

80 MONZA - 4-cyl., 2 dr., a/t, fair cond., runs, asking $350 as is. Jeff, 286-1348.

79 SHASTA TRAILER - 23½', sleeps 8, awning, screened house, storm windows, other extras, excel. cond., $3,500. 286-2274.

79 TOYOTA COROLLA SR5 - am/fm cass., a/c, 5-spd., excel. cond., $1,800. 689-7963.

79 TOYOTA CELICA GT - 5-spd., a/c, sun-roof, am/fm stereo cass., hi miles, excel. gas mileage, $2,000. 277-2067 after 6 p.m.

79 MOTOR HOME - 25' custom-built, Dodge chassis, low miles, sleeps six, many extras. 265-8093.

79 COUGAR XR7 - fully loaded, must sell, new car arriving, make offer. Tony, 698-9274.

78 OLDS CUTLASS SUPREME - p/s, p/b, a/t, a/c, am/fm, 8-cyl., new trans., rebuilt carb., $2,000. Jean-Pierre, Ext. 4379 or 3220 after 6 p.m.

78 DODGE ASPEN - 4-dr., a/t, p/s, p/b, a/c, hi mileage, runs well, $550. Ext. 3699.

78 T-BIRD - V-8, am/fm, a/c, perfect cond., asking $1,700. Jack, Ext. 5565.

77 MGB - excel. cond., new tires, exhaust, hard/-soft tops, asking $4,000. Ext. 3147 or 585-9149.

76 BUICK CENTURY - 4-dr., V-6, good cond., am/fm radio, $300. Bob, Ext. 4446 or 654-3989 after 5 p.m.

74 MG BGT - very good cond., 74k orig. mi., $3,100 or best offer. John, 286-9334.

74 COACHMAN MOTOR HOME - good 390, a/c, sleeps 8, self-contained, generator, $6,000, neg. 364-2414 or 727-0225.

74 FORD PICK-UP F-350 - crew cab, cap, good work truck, best offer, 924-7262.

71 FORD TORINO - 2-dr., a/t, p/s, p/b, 76k mi., $450. Ext. 2498.

69 VOLKSWAGON BUG - mint, 4,000 mi. on new motor, clutch & front end, no rust, 63k orig. mi. 758-2620.

67 YAMAHA MOTORCYCLE - 180cc, oil injection, 2-cycle eng., new batt., excel. cond., $150. Dan. Ext. 4987 or 698-7322.

HONDA SPREE MOPED - little used, new batt., $150. Ext. 2054, Mon-Thur.

BIKE CARRIER - car-bumper mount, $15; car top ski rack, $15. Sheryl, Ext. 4400.

CAR-TOP CARRIER - large size, $20; bicycle carrier for bumper, $10; small motorcycle carrier for bumper, $7. John, Ext. 3292 or 286-1348.

WIRE WHEEL COVERS - set of 4, fits 15" rim, like new. 325-0447 after 6 p.m.

TIRES - steel radial, P195R15, $20 ea. or 4 for $70. Rich, Ext. 4867 or 744-8910.

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

TIRE - almost new, 845-15 WW on Ford rim, $15. Ext. 2050.

Boats & Marine Supplies

33' BRISTOL - aux. sailboat w/slip in Greenport, good cond., equipped. Ext. 2405.

29' ULRICHSON - wood, excel. cond., f.b, fwc, 327, runs well, sleeps 5, range/oven, elec. head, many extras, must see, asking $5,000. 732-2754.

22' PALMER SCOTT - 1954, shelter cabin, fiberglass, 100 h.p. Cris Craft eng. 286-1384.

17' SPORTCRAFT DEEP V BOWRIDER - 1981, 470 Mercruiser i/o, full canvas, trailer, life jackets, anchor, v.g. cond., $5,000. 878-1580 after 6 p.m.

16' MFG RUNABOUT - 19' trailer, 50 h.p. Evinrude, eng. not running, asking $1,500. Bill, beeper 923 or 281-0557.

14' FIBERGLASS BOAT - 15-h.p. motor, trailer, elec. winch, depth finder, many extras, $1,000. 325-0357.

8' SKIMMER - fiberglass sailing dinghy w/oars, oar locks & sail, $350; Atomic Four eng. trans., for parts, $50 or best offer. Ext. 2405.

1987 THOMPSON MOTOR BOAT - 290 Daytona twin engines, fwc, loaded, $53,000. 981-9474.

ANCHOR - misc. fenders, reel halyard winch, Shields 30 jib, reasonable. Ext. 3794 or 472-2372 after 7 p.m.

SINGLE LEVER CONTROL & CABLES - Morse for twin eng., $65 neg. Ernie, 588-4987.

OUTBOARD MOTOR - 3-h.p. Johnson, good cond., $75. Al, Ext. 5128.

Lost & Found

FOUND - Toyota keys and glasses, Physics Dept. Carolyn, Ext. 3717.

Free

CAT - 3-yrs.-old, house broken, needs loving home. Ext. 4120 or 689-7963.

TABBY KITTEN - adorable, 9-wks.-old, litter-box trained. 472-1314.

FIRE WOOD - you pick up. 744-0354.

DOUBLE BED - antique satinwood, good, firm foam mattress, no springs. Sally, 821-1726.

KITTENS - need loving home. Ext. 4120 or 689-7963.

Car Pools

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

Miscellaneous

KITCHEN SET - w/bench, Colonial, 5-piece, $50; washing machine, 18 lb., top loader, $75. Maureen, 281-8957.

SOFA - sleeper, Castro queen-size, great cond., $175. 475-8087.

HOME CONTENTS - various items, including bedrm., living rm. & dining furniture, good cond. 744-0960.

SOFA - Colonial, rocker, ottoman, side chair, good cond., $100. 281-9412 after 5 p.m.

ANTIQUES - hall stand, $45; library table, $40; high chair, $70; brass headboard, queen, $140; small wicker chair, $50. Ext. 2109 or 472-9199.

ORGAN - Yamaha, double keyboard, rhythm box, excel. cond. $2,000. Ext. 7958.

SOFA - 7', matching loveseat, gold velvet, mint cond., $150 neg. 744-8823.

BEDROOM SET - birch, king-size headboard, large dresser, night tables, $180; rug, 9'x12', $50. Ext. 3930.

CURIO CABINET - pecan, glass doors & shelves, door on bottom, good cond., $85. Margaret, 924-6435.

MICROWAVE OVEN - Sanyo, almost new, $75; exercise bike, MCA, $40. Yosepha, Ext. 3403 or 3129 eves.

FREEZER - 18 cu. ft., frost-free, $150; kitchen center combo, blender, food processor, mixer, many accessories, new, $75. Ext. 2434 or 589-4407.

REFRIGERATOR - G.E., auto. ice maker, top freezer, avocado, u-haul, $125. Ellie, Ext. 3395 or 325-1537.

PIANO CONSOLE - $800; 2 humidifiers, $15 & $20; Panasonic stereo, $50. Ext. 3089.

AIR CONDITIONER - used, 6,000 Btu, $50. Aromano, Ext. 4024.

WASHER - Kenmore, heavy duty plus, used lightly, excel. cond. Ext. 2710 or 331-7350.

TICKETS - City Opera, La Traviata, Sept. 24, matinee, fourth ring, front row, 3 seats, $14 ea. Romano, Ext. 4024.

RUGS - identical, area, 8'x11½", wool, natural white, 2 yrs., orig. $500 ea., sell $145 ea. John, Ext. 7671.

ORIENTAL RUG - handmade in India, 8'x12', $800; pine loveseat & sofa, $400 or best offer. Ext. 7204 or 331-5912 eves.

KAFIR LILIES - large, $5 ea. Pat, Ext. 2452.

TICKETS - 2, Camelot w/Richard Harris, Sat., Oct. 1, must sell. $32.50 ea. John, Ext. 7005 or 473-8338.

COMFORTER - twin-size, maroon/brown/biege print, new, orig. $60, sell $25. Pat. 2452.

BABY ITEMS - 473-0794.

AIRLINE TICKET - to Chicago, IL/Austin, TX, from Islip on Sept. 3. 331-7679 after 6 p.m.

COLOR TV - Zenith, good cond., $80; drawer desk, $15. Yosepha, Ext. 3403 or 3129 eves.

TYPEWRITER - IBM, electric, 14" carriage, recently overhauled, very good cond., $50. 281-7844 eves.

DEC EQUIPMENT - TU10, tape drive, DL11, Delwriter II; POP11/55 floating point, 128K memory contact. Pat, 924-5533, Ext. 250.

RADIO/TAPE RECORDER - high-speed dubbing, barely used, $90; study lamp, $10; 2 folding chairs, $5 ea. Jean-Pierre, Ext. 4379 or 3220 after 6 p.m.

HOT WATER HEATERS - 2, electric, excel. cond., 30 gal. $75, 15 gal. $50. Tom, Ext. 4084 or 878-1060.

TOP SOIL - fine, screened, $18 per yard, delivered; peat moss, sand gravel blend. 924-9427.

BOX FAN - 20", 3-spd., $10. Ernie, 588-4987.

WINDOW WELLS - 4, galvanized, corrugated, basement., $20. 878-4285.

GARDEN TRACTOR - Jacobsen, 38" deck, Kohler engine, runs, needs work, $50; Bundy trombone, $100. Ext. 2109 or 472-9199.

SNOW BLOWER - Toro; RCA, 25", TV; kitchen stool, best offer. 473-4668.

RADIO-CONTROLLED CAR - MRC-Tamia Frog, Futaba radio controls, 7.2v batt., w/chgr., ready to goooo. $175. Howard, 331-5912.

AEROBIC/FITNESS SHOES - Nike Conditioner, woman's size 6, never worn, orig. $32, sell $20. Elaine, Ext. 5329.

BICYCLE - 3-wheel, adult, basket, $125. Ext. 2434 or 589-4407.

BICYCLE - men's 10-spd., La Parisienne racing, $95; women's 10-spd., $75. Ext. 4898.

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

EAST NORTHPORT - rent w/option to buy, 3 bdrm. ranch, 1½ baths, l/r, d/r, fam. room, new kit. & bath, full fin. bsmt., gar., on ½ acre. Ext. 5277 or 549-5802.

MANORVILLE - 4-room apt., priv. & clean, 1 mi. from Exit 69, $550 incl. utilities. Yola, 728-0865.

PORT JEFFERSON - Harbor Hills, 3 bdrm., 2½ baths, l/r, d/r, eik, fam. room, encl. patio, furnished, starting Oct., $1,000/mo. + util. Ext. 4934 or 928-8993.

PORT JEFFERSON STATION - 3 bdrm. apt., gar., bsmt., all appl., avail. Sept. 1, $800/mo. + util. Ext. 4094 or 751-6575 eves.

SOUND BEACH - new 1 bdrm. apt., priv. ent., parking, full bath, eik, cable, single, non-smoker, $550/mo. all, 1 mo. sec. Ext. 7918 or 744-3068.

S. JAMESPORT - 1 bdrm. cottage, l/r, eik, bath, porch, furn., suit. couple, walk to beach, 20 mi. from Lab, no children/pets, $500/mo. + util. Walt, Ext. 2907 or 698-0576.

CATSKILLS - 3 bdrm. chalet w/sleeping loft, fully furn., near Hunter Mt. Music Festivals, great for hiking, fishing, rafting, swimming, golfing. Kay, Ext. 4501.

HILTON HEAD, S.C. - 2 bdrm. condo, sleeps six, pool, tennis, golf, beach, Aug-Sept. $420/wk. 585-9149.

MYRTLE BEACH, S.C. - 1 bdrm. condo, sleeps 4, overlooking 18th green, min. from ocean by shuttle, full spa & tennis on site, $74/day or golf package. 286-2749.

For Sale

EAST MARION - 1 acre, wooded building lot w/150' frontage on Rocky Point Rd., new subdivision in North Fork resort area, financing avail. $86,500. Ext. 3434 or 744-0244.

RIVERHEAD - mobile home in adult park 55 yrs. & over, waterview on Peconic River, 12' x 60', 2 bdrm., 1½ baths, new interior, wood & coal stove, $30,000.

SETAUKET - Three Village, 4 bdrm. custom Colonial, 2½ baths, full bsmt., eik, priv. wooded lot .78 acre, $269,000. 751-7826 after 6 p.m.

SHOREHAM - 3 bdrm. ranch, carpeted, pool, coal stove, priv. fenced backyard, 2½-car gar., low taxes, SWR schools, clean, move-in cond., $137,900. 744-9677.

SHOREHAM - 4 bdrm., 2½ bath Colonial w/SWR schools, enclosed porch, 2-car gar. and low taxes, energy efficient, close to beach. 744-0960.

WADING RIVER - 3 bdrm. ranch, excel. cond., 2 baths, l/r, d/r, eik, 2-car gar., bsmt., screened rm., 1 acre, fenced, SWR schools, $178,000. 929-3251.

KISSIMMEE, FL - 7½ acres, Disney-Epcot area, also close to proposed horse race track, zoned AE5, $35,000, build your own home. 407-260-1921.

ROCKLEDGE, FL - 2 bdrm., 2 bath, 2 car, fam. rm., 22x25 combination porch, carpet, some drapes, shades, appliances, good loc., $64,500. 407-631-2840.

Wanted

VENDORS - for craft sale on Sept. 10, at Ridge FD. Paul, 924-8143.

CEMENT MIXER - Wet Saw/Bobcat, to buy or rent. Tony, 698-9274.

HOUSEMATE - share condo, 4 mi. from Lab, fully furnished, a/c, cable, pool, tennis, $350 all. Ext. 3160 or 924-2430 after 5 p.m.

SAILBOAT - used 150L. Funboard. Elaine, Ext. 5329.

APT. OR HOUSE FOR RENT - in SWR school district, Sept. 282-5482.

STUDENT - for lawn mowing, other jobs, regular basis, Bellport village. 286-3742 eves & wknds.

CREW - to campaign a J30 in local sailboat races, exp. required. Bob, Ext. 2144.

OUTBOARD MOTOR - 15-20 h.p. Joe, Ext. 2898 or 728-1859.

HOUSE TO RENT OR SHARE - East Moriches area, year-round rental pref. 874-2614.

CANOE - good cond. Ext. 4846 or 363-6940 after 5 p.m.

WOMAN BOWLER - mixed league, Thurs. nites, Shirley, will have fun. Karen, Ext. 2456.

APT. OR ROOM - Eastern Suffolk, single woman, non-smoker. Ext. 4144.

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