

Program Offers Experience to Engineering Graduates

Like most recent graduates, electrical and mechanical engineers with new bachelor's degrees and no job experience are in a "Catch-22" situation: With no experience, they can't get jobs — but without jobs, how can they gain experience?

Up to four engineers graduating this spring will be the first to gain that experience through the Lab's new Accelerator Engineers-in-Training Program.

Offered by the Accelerator Development Department (ADD), the Alternating Gradient Synchrotron (AGS) Department and the Personnel Division, the two-year program will introduce beginning electrical and mechanical engineers to the challenges of accelerator engineering. It is an offshoot of the Lab's Fellows in Accelerator Technology program, which introduces accelerator physics to new Ph.D.'s in physics and engineers with master's degrees or the equivalent experience.

"The Lab is always in need of engineers, but there are two recruitment problems," says Eric Forsyth, ADD Chairman. "First, we can't use them without experience. Second, if they've gained their experience in industry,

where the emphasis is on production, they need time to adjust to our technical expectations."

Through the Accelerator Engineers-in-Training Program, both problems can be overcome.

Every six months, the trainees will rotate into a different group within the two departments. They will be working on such systems as radio frequency, cryogenics and ultra high vacuum. At the end of their training, the engineers will have two years' experience to take with them to other jobs.

A four-person committee, made up of two electrical and two mechanical engineers from ADD and AGS, will administer the program, overseeing the new grads' selection and training.

At present, Jeffrey Taylor of the Personnel Division is recruiting candidates graduating from New York metropolitan area schools of engineering.

"By recruiting locally, the Lab is providing jobs that allow young Long Islanders to remain on the Island after graduation," explains Marsha Kipperman, Personnel Division, who is working with the program committee. — Marsha Belford



Roger Stoutenburg

In the ring of the Alternating Gradient Synchrotron (AGS), which will provide hands-on opportunities for the four yet-to-be-selected participants in the new Accelerator Engineers-in-Training program, stand some of those associated with the program: (from left) Eric Forsyth, Chairman of the Accelerator Development Department; Marsha Kipperman and Jeffrey Taylor, Personnel Division; and AGS Chairman Derek Lowenstein.

NAS Elects Gen Shirane

Only 60 U.S. scientists were elected this year to the National Academy of Sciences, and among them was BNL Senior Physicist Gen Shirane, Physics Department. Current membership in this prestigious honorary society now numbers 1,573.

A solid-state physicist, Shirane has long used neutron scattering techniques at the High Flux Beam Reactor (HFBR) to study such phenomena as magnetism, ferroelectricity, lattice dynamics and phase transitions.

At present, Shirane's research is centered on understanding the high-temperature superconducting materials first discovered in 1986. Since then, he has been a principal in several HFBR experiments that have added a steady stream of insights into the nature of the new superconductors.

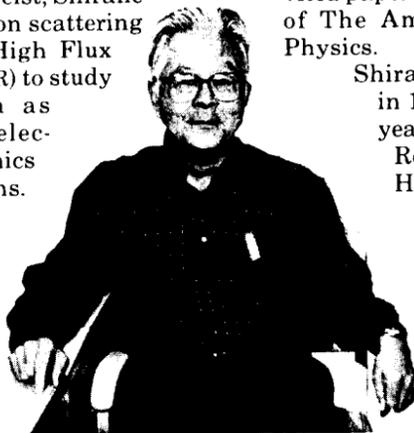
One of his research teams was honored in the Department of Energy's 1988 Materials Sciences Research Competition for confirming the presence of antiferromagnetic correlations between copper atoms in the copper-

oxygen planes common to materials that are superconducting at temperatures higher than 30 kelvins. Another of his team's demonstrations, that magnetism and superconductivity compete in at least one new compound, was the subject of an invited paper at the March meeting of The American Institute of Physics.

Shirane first came to BNL in 1956, but left the next year to go to Westinghouse Research Laboratories.

He returned in 1963, and has been at BNL ever since, except for a six-month stay at the Hahn-Meitner Institute for Nuclear Studies in West Germany, when he was the recipient of a Senior U.S. Scientist Award by Alexander von Humboldt Foundation in 1985.

In addition, Shirane received the Buckley Prize from the American Physical Society in 1973 and was co-recipient of the American Crystallographic Association's Warren Award in 1973. He is a member of the American Physical Society and the Physical Society of Japan.



Coming to Grips With Zinc Fingers

Structural biologist Daniela Rhodes, a senior scientist at the renowned Medical Research Council Laboratory of Molecular Biology in Cambridge, England, will present the next Brookhaven Women in Science lecture on Thursday, May 4, at 3:45 p.m., in the Biology Seminar Room, Bldg. 463. She will talk about "Zinc Fingers: A Novel Protein Motif for Nucleic Acid Recognition."

Rhodes' colleague, Nobel laureate Aaron Klug, has proposed what is called a zinc-finger structure for transcription factor IIIA, a protein that binds to DNA. In studying this protein, Klug discovered that units of about 30 amino acids repeat in tandem. Each unit is thought to fold around a zinc atom to form separate structures within the protein — called zinc fingers.

Rhodes has recently shown that zinc fingers separated from another transcription protein can bind to the same DNA sequences as the intact protein. This shows that the zinc-finger DNA-binding structure is functionally independent of the rest of the protein.

Born in Italy, Rhodes was raised in Sweden, where she obtained a diploma in chemical engineering at Tekniska Gymnasiet, Orebro, in 1969. After marriage to an Englishman took her to Cambridge, England, she became a research assistant under Klug. Five years later, she published her first independent work on the crystal structure and solution conformation of transfer ribonucleic acids.

In 1982, Rhodes received a Ph.D. in biochemistry from Cambridge University. Her doctoral work consisted of pioneering studies of nucleosomes, units composed of DNA and histone proteins that are found in chromosomes.

By immobilizing short pieces of DNA on atomically flat surfaces and cutting them with enzymes, Rhodes developed a way to determine the helical periodicity of DNA in solution. These solution measurements were important for understanding the change in the helical repeat when DNA wraps around histones in the nucleosome.

Her work then turned to studying the interactions of nucleosomes and DNA-binding proteins, such as transcription factor IIIA, that promote and regulate gene activity.

At 6 p.m., following the seminar, Rhodes will be the guest of honor at a dinner at Bill Kirk's Bellport Kitchen. Reservations will be taken through Tuesday, May 2, by Edith Thornhill, Ext. 7813.



Daniela Rhodes

Inside Info

Victoria McLane, Department of Nuclear Energy, was installed in February as president of the Long Island Chapter of American Women in Science (AWIS). She was president-elect last year and had previously served as treasurer. A founding member of Brookhaven Women in Science (BWIS), McLane is currently newsletter editor and is a past group-coordinator.

Also serving on the AWIS board is Frances Brown, Biology, who is continuing as liaison chair for her second year. She has also served BWIS in the past as program chair.

Bromley Named Science Adviser

Nuclear physicist D. Allan Bromley of Yale University, whose association with BNL dates back to 1961, has been appointed science adviser to President George Bush, the White House announced on Thursday, April 20. Bromley has been given the title of Assistant to the President for Science and Technology.

At Yale, Bromley is the Henry Ford II Professor of Physics, as well as the director of the Arthur W. Wright Nuclear Structure Laboratory.

Bromley has an international reputation for outstanding research with heavy ions. As such, since 1985 he has chaired BNL Director Nicholas Samios' Policy Committee on the Relativistic Heavy Ion Collider, which has been proposed for BNL.

Of Bromley's prestigious appointment, Samios said, "We are extremely pleased with the appointment of Dr. D. Allan Bromley of Yale as the Presidential Science Adviser. Allan is an outstanding physicist and administrator with a great breadth of scientific knowledge. As such, he is an ideal person to advise the President in the critical years ahead."

Bromley was introduced to BNL in 1961, as a visiting physicist. He returned every summer through 1968, when he was a senior visiting scientist. In 1969, he became a consultant to Brookhaven, an association that continues today.

He was also a member of the Physics Department Visiting Committee from 1978-81, and served as its chairman in 1981. Further, Bromley's influence has been felt by a number of physicists in BNL's Physics Department who trained under him as Yale graduate students.

The Woman With All the Answers

"For a painting I am undertaking, I need to interact with a particle — do you have any pictures you can send me?"

Of course — I have a selection: Do you care to interact with an omega minus, a pi-meson, a proton-antiproton pair or, perhaps, a charmed baryon?

Dear Brookhaven National Laboratory,

I think there exists a particle of time (*timeon*). It's going to take time to detect it, however.

Good luck with your research, and, do, by all means, take your time.

Dear BNL,

I am a seventh grader at the local Junior High School, and I am taking science this year. I want to build a nuclear reactor or particle accelerator for my science fair project. Can you send me some plans?

Building a nuclear reactor or a particle accelerator is a big project — even for engineers and physicists. So you can see how big these projects are, why don't you ask your science teacher to bring your class to the Lab for a tour?

If you want to know anything about Brookhaven National Laboratory and you don't know whom to contact, ask Janet Sillas, Ext. 2345. A senior public affairs assistant at the front desk in the Public Affairs Office, Sillas is the woman with all the answers about BNL — "and, if I can't provide the answer, then I know who can."

Sillas handles "BNL's fan mail and phone-in requests" from the general public, as well as from community organizations, scientific and technical corporations, educational institutions and book publishers.

The inquiries she directs fall into three categories: "the standard, the unusual — and the artistic avant-garde," Sillas explains.

Standard requests that come under Sillas' jurisdiction include those by publishers searching for appropriate photos for science textbooks; homeowners and builders inquiring about BNL's past research on oil-hot water heating systems and energy-efficient housing; teachers and students needing information about radiation; and civic groups and schools asking for speakers to talk about BNL.

The unusual includes inquiries about any strange sights, smells and noises that have been observed by the community around the Lab. "Usually, the Lab is not responsible for UFOs and other such sightings," explains Sillas. "But, first, I have to decide whether these phenomena were really spotted or just imagined."

"We also get a fair amount of correspondence — loaded with equations — and a number of phone calls from people who consider themselves self-employed inventors, or who think that they are the second Albert Einstein, or who believe that strange physical forces are invading their lives," says Sillas.

She credits coursework in psychology at Suffolk County Community College, taken under the Lab's tuition reimbursement program, with helping her know how to handle these inquiries. As Sillas says, "Even eccentrics have their place in the world."

"I love dealing with the public because I like interacting with people," explains Sillas. "And I like my job because I deal with every aspect of the Laboratory and every day is



Roger Stoutenburg

different — different people, different topics, different challenges to find the right answers."

She began her employment at BNL in July 1974, as a secretary in the Director's Office, working for Len Emma on BNL's environmental impact statement. After becoming part of the Lab's first technology transfer effort, Sillas moved to the Public Relations Office, now called Public Affairs, in June 1977. She was promoted to a public relations assistant in 1979 and to her present title in 1983.

Sillas has been active in the BERA Choral Group since 1974, singing alto in their annual Christmas concert and in an octet of Choral Group members. In addition, she has been a member of BERA's Theater Group, performing in their past vaudeville shows.

From her years at the Lab, she has developed a network of contacts — employees who can answer technical questions from scientists and engineers outside the Lab and who can talk about BNL as part of Public Affairs' speakers bureau.

Sillas' favorite inquiries and requests are the avant garde — "being somewhat of an artist myself, I am sympathetic to the needs of creative people." So, artists, writers, composers and choreographers in search of scientific inspiration for their latest creations get Sillas' special attention.

What would she do if she got a request for "Broadway Baby?"

"Buddy, I'd sing it over the phone!" Sillas answers without hesitation.

For those who would like to catch her rendition of this song in person, Sillas can be seen and heard as Hattie in the May 13 through June 24 production of *Follies* at Theater Three, Port Jefferson.

— Marsha Belford

BERA Bus Trip To Atlantic City

One bus is filled for the May 20 trip to Trump's Castle in Atlantic City, and, if there is enough interest, there will be another. Time is running out, however — paid reservations must be made at the BERA Sales Office in Berkner Hall prior to closing at 2 p.m. on Thursday, May 4.

The round trip costs \$22.50 per person, but each participant will receive a \$17.50 return from the casino, and a \$5 deferred voucher.

For more information, call Louisa Barone, Ext. 3347, or M. Kay Delli-more, Ext. 2873.

Hospitality News

The guest speaker at the next Hospitality Committee get-together will be Tom Casey, executive board member and quarterly newsletter editor for the Long Island Greenbelt Trail Conferences, Inc. He will discuss some of the activities of this organization, which builds and maintains hiking trails, and works to protect Long Island's open spaces.

Please note: The get-together will be held Friday, May 5, at 9:30 a.m., in Room B of Berkner Hall.

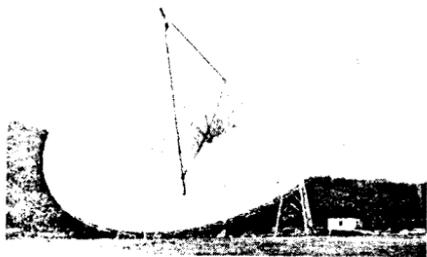
Spouses of Laboratory employees and guests are welcome to attend this informative presentation, so please come and bring the children — baby-sitting will be provided free of charge. Coffee, tea and danish will be served.

Limerick Contest — Last Call

*There was a fine poet named Lear
Whose limericks were without peer.
If you think you can write,
Poems like his, with a bite,
There's a contest awaiting you here!*

Entries for the Bulletin's Limerick Contest must be received at Bldg. 134 by Wednesday, May 3.

To win the first prize of a five-balloon bouquet of your choice from the BERA Sales Office, you must write the best limerick having something to do with BNL. The best of the bunch will be published in the Bulletin on Limerick Day, May 12, the 177th birthday of the English limerick writer, Edward Lear.



Telescope Collapse: The Panel's Report

The fracture of a 1/2-inch-thick steel plate is the most probable cause of the collapse of the 300-foot radio telescope at the National Radio Astronomy Observatory (NRAO) at Green Bank, West Virginia, last November 15.

This was the conclusion of an independent technical assessment panel established to determine the cause of the telescope's sudden failure. It was assembled by the National Science Foundation, which funds NRAO, and Associated Universities, Inc. (AUI), which operates both it and BNL.

Metallurgical analysis of the half of the gusset recovered from the wreck revealed that a significant crack existed before the structure's failure.

The most likely collapse scenario is that the crack progressed until the gusset split in half, destroying the ability of the diamond truss in the northeast corner of the structure to carry its load. The gusset connected to the diamond truss, which, in turn, was connected to the antenna's main support.

While over the 26-year life of the telescope a few hundred repairs of failures of small structural members had been made, "The gusset plate in question was cracked in a fashion such that most of the crack was concealed beneath the structural elements to which it was connected," noted the panelists. "There was lacking any signal that the gusset was failing and an examination was not possible without disassembly, which could not be performed."

The structure's failure "was not a result of inadequate maintenance or inappropriate operation of the telescope," the panel concluded after reviewing NRAO maintenance records. The telescope collapsed while being swiveled to follow the movement of celestial bodies across the sky, around 10 p.m. on a cool, windless night.

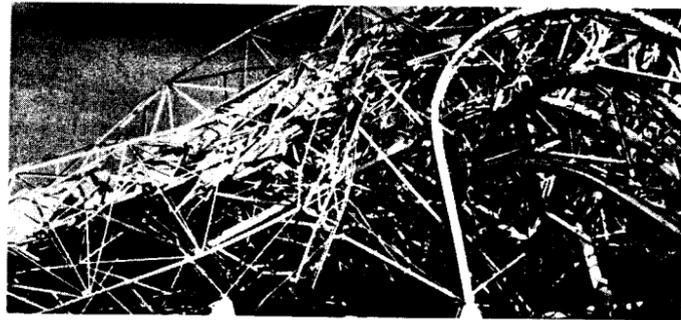
From a post-collapse computerized stress analysis of the structure's design, the panel's two engineers and one physicist concluded: "The stresses

in a large number of circumferential and radial members were substantially higher than those currently permitted — in some cases by as much as 100 percent and more.

"One concludes from the current analysis that, from the beginning of its life, the structure was marginal with respect to structural failures of a minor or perhaps a major nature."

When the radio telescope was designed and built in the early '60's, this computerized stress analysis was not performed, for it was not a readily available design tool for structural engineers, as it is today. Therefore, as "there were no phenomena observed in the operation of this telescope that could not be dealt with using modern design practice," the panel "sees no direct implication from the failure of the 300-foot telescope to other radio telescopes."

In October 1962, when the radio telescope was put into service, it was considered an interim facility and, in retrospect, it performed longer than



its designers expected. Since no other comparable instrument has been built in the U.S., it never became obsolete.

"NRAO has requested that a similar-sized, but completely steerable telescope be built as a replacement at Green Bank," says Jerome Hudis, AUI Vice President for Programmatic Affairs. "The new telescope would fill a critical scientific niche in the world's complement of radio telescopes and would take advantage of the unique 'radio-quiet zone' at the Green Bank site."

Arrivals & Departures

Arrivals

Dane M. DeFio Plant Eng.
William L. Gildersleeve Plant Eng.
Manuel C. Grau Accel. Dev.
Gary J. Kaczmarczyk S&EP
John T. Morris AGS

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:
Mauro A. Squicciarini Plant Eng.

Leaving the Lab — After 35 Years or More

In this new feature, at the end of each month, the Bulletin wishes the best of luck to employees who are retiring from the Lab with 35 or more years of service at the end of each month.

Sophie Kostuk began work at BNL on January 1, 1949. Just over 40 years later, today is her last day on the job at the Lab.

Kostuk started in the BNL steno pool, but transferred to the Chemistry Department six months later. From



Roger Stoutenburgh

Sophie Kostuk

there it was a steady progression over the years through the secretarial ranks, including 16 years assisting Richard Dodson, who was Chemistry Department Chairman from 1947 to 1968.

Most recently, Kostuk has handled her department's administrative functions. In the last few months, she has compiled all the department's photographs into a series of albums chronicling such events as the construction, dedication and open house for the Chemistry building. The albums can now be seen in the Chemistry Department library on the third floor of Bldg. 555.

"I love Brookhaven — I can't think of any place I would rather have worked," Kostuk says. "There have been very few days I haven't felt like coming in."

Though work has been pleasant, Kostuk has noticed that, over the years, "the traffic has gotten worse on the way to work." Now, she won't have to contend with that as she stays close to her Eastport home.

Explaining why she has no plans to move or to travel, Kostuk says, "I was born on Long Island, and I've been here all my life. And I've got a beautiful Victorian home on the Bay as nice as any hotel you could stay at — it's a summer resort in itself."

Karl Walther may be leaving the Lab, but he's also leaving a lot behind to remember him by — more than 42 years worth of glass that he has blown for use in BNL experiments.

Walther started as a glassblower in the Instrumentation Division on February 2, 1947. As most of his work was done for the Chemistry Department, the artisan moved there in 1970.

Now Walther wants to say, "Thanks for a great time! It couldn't have been nicer. This bunch has been great, and I think it kept me young."

Walther's last day at BNL was Tuesday. Since then he's been using up his remaining vacation days in his native Germany, attending the Glassblower's Convention.

When he returns to Middle Island, Walther and his wife Sigrid will consider their future plans. "Our kids are in Florida, and our hearts are with them," says Walther, "but our perspiration glands aren't. So we'll definitely not go to Florida. We'll probably stay on Long Island or go to Pennsylvania where there's a piece of land on a hill. . ."



Mort Rosen

Karl Walther

In the meantime, Walther will continue the part-time consulting work he's been doing for the Corning Company. For the past few months, Walther has been sharing his mastery of his craft by traveling upstate to train Corning glassblowers in the speciality of making scientific apparatus. When his contract with Corning ends in July, his consulting skills will be available again.

Leap Into Spring!

On Saturday, May 6, do-si-do down to the Brookhaven Center for another fun evening of square dancing and contradancing. At 8 p.m., callers David and Margaret Conover will call all dancers to order for the second annual "Leap Into Spring" benefit dance.

Sponsored by Brookhaven Women in Science (BWIS) to benefit the Renate W. Chasman Scholarship Fund, the dance features the Conover's five-piece, traditional music band. The callers and band are members of the Long Island Traditional Music Association.

Contradancing is similar to square dancing, except that partners line up opposite to each other instead of next to each other in squares of four couples. Since dance instructions are called out as the different dances progress, no prior experience is necessary.

Admission is \$5 per person, and tickets are available from:

	Ext.	Bldg.
Robin Appel	4830	510C
Mary Ann Castrogivanni	3898	703M
Susan Eng	7988	515
Louise Hanson	7709	815
Harriet Martin	3487	477
Margareta Rehak	4708	902B

As well, tickets may be purchased on your way to the Cafeteria, on Thursday and Friday, May 4 and 5, from 11:30 a.m. to 1 p.m.

The Renate W. Chasman Scholarship of \$1,000 is awarded annually by BWIS to a Long Island woman who is



continuing her education in the sciences, engineering or mathematics after an interruption. The Scholarship, named after the noted BNL accelerator physicist, the late Renate Chasman, is made possible by corporate and private contributions, as well as benefit events.

Tax-deductible contributions may be made to the Chasman Scholarship Fund, P.O. Box 183, Upton, New York 11973.

Golf Tournament

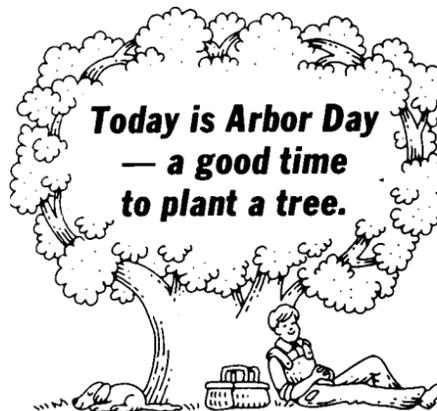
The BGA will sponsor its second 1989 golf tournament on Monday, May 8, at the Suffolk County golf course at West Sayville. Tee-off is between 10:30 a.m. and 1 p.m., depending on sign-up. Reservations can be obtained by calling Bob Lofaro, Ext. 7191, by May 4. Preference will go to foursomes with a minimum of three BGA members.

Greens fees, to be paid in the Pro Shop, are \$14. The entry fee, to be collected by the starter, is \$1 for BGA members and \$2 for nonmembers. Riding carts will be available for \$20 per cart; pull-carts for \$3 each. In the event of rain, please direct any questions to the Pro Shop, 567-1704.

Eighty-one BNL golfers played on April 13 at the first 1989 BGA tournament at the Heatherwood Golf Club. Winners of each group were:

Flight	Low Gross	Low Net
A	Steve Heald	Eldon Schmidt
B	Robert Meier	Howard Vetter
C	Joe Carbonaro	Bob Schuman
D	Lou Sanford	See-Meng Wong
E	Bob Rowley	Gene Hassell

Closest-to-the-Pin awards went to Mike Clancy, Dan Harrow, Lou Repeta and Eldon Schmidt, while Glaister Fraser and John Millener took Longest-Drive awards.



If you're not sure how to plant a tree, the Cornell Cooperative Extension can help: You can attend a tree-planting demonstration tomorrow, Saturday, April 29, at 10 a.m., at the Suffolk County Farm in Yaphank, or you can get the free fact sheet, "How to Plant a Tree," by calling 727-7850 or writing to 246 Griffing Avenue, Riverhead, NY 11901.

Volleyball

Captains' Meeting

The last general captains' meeting for the 1988-89 volleyball season will be held on Wednesday, May 3, at noon, in Room D, Berkner Hall. The nomination and election of officers for the 1989-90 Volleyball League Executive Board will take place at this time. Captains or team representatives must attend.

Awards Dinner

The 1989 Volleyball Awards Dinner will be held on Friday, May 12, at 6 p.m., at Rock Hill Country Club in Manorville. Admission is \$10 for league members and \$15 for each guest. The menu features a variety of hot dishes, and a D.J. will provide dance music. For tickets and more information, contact your team captain by Wednesday, May 3.

Cafeteria Menu

Week of May 1

Monday, May 1	
Soup: Chicken gumbo Creole	(cup) .75 (bowl) .95
Hungarian goulash w/egg noodles	3.10
Lasagna w/garlic bread	2.95
Lite-line: Tomato stuffed w/tuna salad	2.25
Hot deli: Chicken cutlet Parmesan	2.85
Tuesday, May 2	
Soup: Rice Florentine	(cup) .75 (bowl) .95
Stuffed lamb chops w/veg.	3.25
Barbequed chicken w/pot. or veg.	3.10
Lite-line: Broiled chicken w/pot. or veg.	3.10
Hot deli: Tuna or chicken salad melt	2.85
Wednesday, May 3	
Soup: Cream of asparagus	(cup) .75 (bowl) .95
Roast turkey w/stuffing, giblet gravy & veg.	3.25
Young liver w/sautéed onions & pot. or veg.	3.10
Lite-line: Salad plate	2.25
Hot deli: Clam roll	2.85
Thursday, May 4	
Soup: Navy bean	(cup) .75 (bowl) .95
Chicken à la king over rice	3.10
London broil w/pot. or veg.	3.10
Lite-line: Broiled whitefish	3.10
Hot deli: Pastrami	2.85
Friday, May 5	
Soup: Manhattan clam chowder	(cup) .75 (bowl) .95
Baked cod Bella Vista w/pot. or veg.	3.10
Pepper steak over rice	2.95
Lite-line: Vegetable medley	2.50
Hot deli: Reuben	2.85

Basketball

Playoffs — Semi-Finals

First Game

Knicks 87	Runaways 73
L. Walcott 32	J. Desmond 27
W. Cummings 21	P. Johnson 17
G. Thompson 12	R. Moran 10
M. Lawrence 9	B. Doty 10
B. Turner 8	S. Gilbert 9
T. Mendez 3	
F. Thompson 2	

Three-point shots: Gilbert, Johnson, Moran, Thompson, Walcott (8)

Second Game

Longshots 54	Celtics 49
R. Bersak 17	D. Hoggard 18
T. Mayo 11	P. Browne 12
S. Alonzo 10	J. Gaeta 11
F. Malone 5	C. Edwards 4
G. Mack 5	M. Colon 4
J. Wells 4	
S. Springston 2	

Three-point shots: Bersak, Gaeta (3), Hoggard, Mayo

Bowling

Pink League

Sandy Asselta had a 208, Donna Cunningham 186. Donna also converted the 6/7/10 split.

Red/Green League

L. Grimes had a 221, H. Arnesen 217, C. Scarlett 215, F. Hohmann 208, T. Prach 207, D. Skelton 204, N. Combatti 204, R. Mulderig 201.

White League

Ken Riker had a 224, Rich Scheidet 223, Ed Meier 208, Ron Picinich 206, Gerry Riker 201, Ed Sperry 201, Sharon Smith 200, Joe Ferrante 200.

Purple League

Frank Gaeten had a 237, Marsha Kipperman 221/208, Elaine Zukowski 215, Kathy Griffin 204, Karen Vogel 190, Caryll MacDougall 190, Cheryl Miezianka 183.

BROOKHAVEN BULLETIN

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

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Note to Employees:

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

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.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4028. **SCIENTIFIC ASSOCIATE POSITION** - Requires BS in biochemistry, a related science field or the equivalent. Will contribute to basic research in improving overall quality of STEM specimens. Will be responsible for preparation of EM grids for STEM users and staff. Will maintain supplies, reagents, relevant equipment, clean-room environment; will act as liaison with Department Office for visiting users; and will assist with the operation of STEM for users and staff. Biology Department.

4029. **TECHNICAL POSITION** - Requires BS in physics or electronics and background in computer programming. Will be involved in the design, layout, construction and software development for data acquisition and display systems and electron-energy loss (EEL) spectrometer control for STEM II. Biology Department.

Motor Vehicles & Supplies

87 HONDA CRX SI - 5-spd., black, sunroof, a/c, am/fm cass., \$8,700. 475-0631.

86 BRONCO XLT - full size, 19k mi., a/c, 2 sets wheels & tires, \$14,499. firm. 654-4800 after 5 p.m.

86 RENAULT ENCORE GS - excel. cond., a/c, a/t, 50k mi., \$3,950 neg. John, Ext. 7668 or 878-1923.

86 IROC - blue, 22k mi., 305 TPI, a/t, warr., T-tops, loaded, Alpine stereo, mint cond., \$10,000 firm. Fred, Ext. 3155.

85 FIERO 2M4 - take over payments, excel cond., new rear tires. John, Ext. 2138 or 928-8389 after 5:30 p.m.

85 SUNLINE - 5th wheel, 18.5', self-cont., a/c, awning, rear din., sleeps 4, asking \$6,500, immac. 744-3926.

84 TRANS AM - loaded, 32k orig. mi., T-tops, sacrifice. 758-3204.

84 FORD ESCORT - 2-dr., h/b, 5-spd., a/c, p/b, am/fm cass., excel. cond., \$1,500. Toru, Ext. 7751/4973 or Ext. 3112 after 6 p.m.; after 29th, Ext. 3663 or 926-1376.

84 NISSAN 300ZX 2+2 - T-tops, 40k mi., excel. cond., adult-owned, asking, \$8,600. 281-6617 after 5 p.m.

83 CHEVY CITATION - 4-dr., p/s, a/t, a/c, body very good, needs eng. work. \$1,000. Lipo, Ext. 5809.

82 OLDS CUTLASS SUPREME - 2-dr., a/c, p/s, p/b, a/t, new tires, stereo, low mileage, \$4,500. 366-0021.

82 CHEVY CAPRICE CLASSIC - 9 pass. wagon, V-8, a/t, a/c, cruise, p/w, p/l, am/fm cass., \$2,000. Warren, Ext. 3277.

81 HONDA CIVIC - 4-dr., sedan, 80k mi., a/c, 5-spd., \$1,100. Lin, Ext. 3137.

81 ESCORT - runs well, high mi., 2-dr., 4-spd., \$700. 929-5911.

81 BUICK SKYLARK - 6-cyl., gray, 4-dr., runs well, 80k mi., a/c, p/s, p/b, \$2,000. Sergio, Ext. 3514.

81 CHEVY CAMARO - excel. cond., 4 new radials, \$1,500 paint job, Kenwood Clarion stereo, louvers, must see, \$2,900. Chris, 654-4266.

80 FORD FAIRMONT - 4-spd., 100k mi., may need clutch, asking \$500. Terry, 727-0995.

80 DATSUN 210 - hatchback, 85k mi., new brakes, stereo, 35 mpg, great for commuting, good cond., asking \$750. 589-3072.

80 COLEMAN POP-UP - sleeps 5, good cond. in-out, stove, sink, cabinets, spare tire, asking \$1,000 neg. Paul, 273-6796.

80 DODGE OMNI, 4-cyl., a/t, p/s, p/b, excel. looks and running cond., \$850. 585-6518 8 a.m. & 5 p.m.

79 AMC SPIRIT - good tires, \$100 or better offer. 924-0960 after 5 p.m.

79 DODGE ASPEN - 4-dr., new exhaust system, good cond., 74k mi., \$1,100. Frank, 289-0965.

79 FORD LTD - 8-cyl., 81k mi., a/t, p/s, p/b, a/c, clean in-out, asking \$1,200. Lee, Ext. 3579 or 282-3104 eves.

89 CHEVY Z-71 - 4x4, pickup, blue & gray, 4k mi., every option, \$15,500. Joe, 399-0828.

87 CAMARO - a/t, p/s, p/b, a/c, am/fm radio, navy, grey interior, excel. cond., \$9,200. 874-3796.

86 KX125 - purchased new 5/88, very good cond., \$1,200, bike: \$400 full equipment. Ken, 473-7460.

86 HONDA CIVIC SI - h/b, 5-spd., 50k mi., sunroof, new tires, asking \$5,000. Chris, Ext. 2022 or 385-6112.

85 PONTIAC GRAND AM - light green, s/t, a/c, am/fm cass., 17k mi., excel. cond., \$6,900. 665-4499 after 5 p.m.

84 MAZDA 626 - v.g. running cond., excel. mileage, clean interior, exterior did not survive LIE, asking \$600. Ext. 4054 or 661-1953 after 7 p.m.

83 YAMAHA VIRAGO MOTORCYCLE - 750cc, black, mint cond., garaged, like new, low mileage, asking \$1,900, neg. Charles, Ext. 5211.

83 NISSAN STANZA - h/b, 4-dr., a/t, p/s, p/b, a/c, 65k mi., clean in and out, excel. running cond., \$3,600. Jim Wright, Ext. 4606 or 654-5049.

83 VIKING POP-UP - sleeps 6, stove, sink, ice box, awning, extras, like new, \$2,200. 281-2940.

83 CAN AM DIRT BIKE - 400cc, less than 40 hrs. on bike, like new, \$800 or best offer. Andy, Ext. 2765.

81 VIKING POP-UP - good cond., needs some canvas repair, asking \$175 or best offer. Ext. 2550 or 654-0407.

81 MAZDA 626 - red, 2-dr., new tires, am/fm cass., excel. cond., 79k mi., \$2,100. Ext. 4966.

81 HONDA ACCORD - 4-dr. sedan, p/b, p/s, a/c, runs well, \$800. Michelle, 286-7989.

80 OLDSMOBILE CUTLASS - diesel, no rust, runs well, good station car, \$1,500. R. Cohen, Ext. 4853.

80 OLDS CUTLASS SUPREME - hi mi., good cond., V-8, 260 eng., \$1,400. 874-3796.

80 CHRYSLER CORDOBA - loaded, low miles, \$2,000 or best offer. 929-4465.

79 FORD LTD II - 302, a/t, am/fm cass., new brakes, shocks, rotors, clean body, int., \$500. Dan, 698-7322 days or Ext. 4987 eves.

79 CAPRICE CLASSIC - 4-dr., a/t, a/c, 95k mi., new brakes, shocks, am/fm radio, very good cond., asking \$1,700. Sorin, Ext. 2765.

79 MUSTANG - bright red w/black trim, V-6, 4-spd., excel. cond., \$1,993. Jim, Ext. 5400, 878-6098.

78 DODGE STATION WAGON - make offer. 369-8683 after 6 p.m.

78 CORDOBA - not running, body good, can be used for parts, make offer. Lou, 928-4013.

78 TOYOTA CELICA GT - moon roof, am/fm stereo, 125k mi., runs well, some rust, \$1,100. Rich, Ext. 7975.

78 DATSUN 280Z 2+2 - new air-flow box, good tires, T-top, parting out, make offer. Ext. 2345 or 929-3910.

77 DODGE VAN - good tires, eng., radio, has some rust, \$300 or best offer. Ext. 2550 or 654-0407.

76 CHEVY WAGON - 350, a/t, runs well, some rust, some new mechanicals, \$550. Ken, Ext. 5110.

76 TRIUMPH - 4-spd., hardtop, Porche red, am/fm, manual, much more, excel. operation. Lynn, 727-2861 after 5 p.m.

76 TOYOTA COROLLA - needs some work, new starter, new brakes, \$200, neg. Harold, 929-3048.

75 CADILLAC - running cond., 2-dr. hardtop, locks on both doors not working, \$175. Lou, 928-4013.

75 DATSUN B-210 - good running station car, asking \$150. Dave, 929-4522.

75 TOYOTA COROLLA - runs very well, good station car, \$400 or best offer. Musso, 929-4465.

73 JEEP - mail truck, left-hand drive, 6-cyl., a/t, runs well, \$250. 744-4386.

71 CHEVY FAN MINI MOTOR HOME - 350, V-8, a/t, p/b, over 100k mi., sleeps 6, complete, asking \$3,800. Ron, Ext. 2467 or 924-8644.

67 CHEVY ENGINE - 427, 4-bolt main, 30 over size, 475-9452 after 5:30 p.m.

SPEAKERS - Clarion 830 triaxial, 100 watts, new, in box, list \$200, sell \$100. Ext. 2799.

CHEVY CAP - for 88-89, gray, \$500; ladder racks for Chevy pickup, \$300. Joe, 399-0828.

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

COACHMAN CAMPER - 11 1/2' slide-on, self-cont., refrig., stove, oven, shower, heat, h/c water, \$1,500. Ext. 4629 or 929-4258 after 5 p.m.

Boats & Marine Supplies

26' PEARSON - excel. cond., 5 sails, Loran, radio, dinghy, \$8,900. Ben, Ext. 4299.

26' PLYWOOD OWENS 327 - 1964, good shape, runs well; 14' aluminum boat; Evinrude 18 h.p.; Sears 3 h.p.; best offers. Roger, Ext. 2382.

25' LANCER SLOOP - 1977, shoal keel, new Genoa, new Evinrude, 9.9 ES, \$4,900. 289-8693.

25' CHRIS CRAFT - 1980, inboard, FWC, full head, shower, hot water, shore power, \$15,000. Bill, Ext. 2807 or 281-0557.

23' COLUMBIA SAILBOAT - 1976, 1986 Yamaha 6 h.p., very clean, must see. 924-2016 after 6 p.m.

22' CATALINA SAILBOAT - 3 sails, trailer and motor good cond., asking \$4,800. 929-8912.

21' V-BOTTOM - 1980, w/1986 110 h.p. Johnson, excel. for clamming, fishing or for pleasure w/wo cabin, asking \$3,600. 589-3072.

19' BAYLINER - Bowrider and trailer, 125 h.p. Volvo, inboard/outboard, many options, rarely used, \$6,500. Don, Ext. 2981.

19' FLYING SCOT - sails, spinnaker, trailer, excel. cond. Perlman, Ext. 472-1179 eves.

18' FIBERGLASS SLOOP - 4 sails, sail cover, knotmeter, depth sounder, new battery, galvanized trailer. Bergoffen, Ext. 7898.

18' CATAMARAN - excel. cond., trailer, beach wheels, harness, other extras, \$2,000. 821-0686.

SAILING RIG - canoe, includes sail, mast, boom, gaff, rudder, lee boards, hardware, etc., Old Town, \$400. Bob, Ext. 4044.

1977 EVINRUDE - 25 h.p., long shaft, controls and tank, \$400. 698-6436 after 4:30 p.m.

Furnishings & Appliances

LEATHER FURNITURE - Brazil contemporary, dark brown w/rosewood frame, v.g. cond., make offer. Ext. 2799 or 757-1581.

SOFA & LOVESEAT - purchased in 1985, white contemporary, Scotchguarded, v.g. cond., asking \$300. 589-3072.

DINETTE SET - metal, formica woodgrain table w/6 chairs, \$75 or best offer. Ruppert, Ext. 3254 or 288-2364.

DRESSER W/MIRROR - mahogany, v.g. cond., \$100 or best offer. 689-7326.

CONTEMPORARY SOFA - 56", beige w/orange floral print, good cond., \$50. Phil, 363-2070 eves.

SOFA SET - 6-piece sectional, 2 years old, v.g. cond., \$150. Ext. 2679 or 472-6922.

BATHROOM SINK - w/faucet, like new, Kohler, gold, \$40. Ext. 4024.

RANGE HOOD - 30" wide, almond, two-speed, like new, \$25. 363-2070 eves.

WALL OVEN/COUNTERTOP STOVE - w/exhaust hood, all GE, avocado color, \$100. Penny, Ext. 2625 or 467-8297.

AIR CONDITIONER - Westinghouse 8000 Btu, v.g. cond., \$125. Ext. 4153 or 732-5829.

Tools, House & Garden

LAWNMOWERS - 3 1/2 h.p., \$27; 3 1/2 h.p. Briggs & Stratton eng., side discharge, 22" cut, new cables, \$75. John, Ext. 4757 or 475-6981.

LAWNMOWERS - Mastercut 22" rotary, 3 1/2 h.p., \$60; Craftsman 22" self-dr., bag, \$85; Craftsman 21", \$60. Dan, 698-7322 days or Ext. 4987 eves.

KEROSENE HEATER - Corona 2300 Btu round convention /5 gal. can, have 2, \$40 ea. 928-4013.

TOPSOIL - \$19 per yard, delivered, also sand and gravel delivered. 924-9427.

SWIMMING POOL SUPPLIES - s/s ladder, vacuum head & hose, 1 h.p. pump, dio. earth filter, 35 lb. dio. earth. Ext. 4727.

LAWNMOWER - Snapper 21", 5 years old, \$50; table saw, Walker Turner, needs work, \$50. Ext. 7975 or 744-0024.

Sports, Hobbies & Pets

BIKE - Bianci 12-spd., removable 26" tires, new, hardly used, \$325. Bob, Ext. 4002.

PIANO - Lester Betsy Ross spinet, light wood, includes bench, good cond., \$700. Tony, Ext. 3658/3637 or 929-4903.

CAMERA - Olympus, OM-G, flash & case, \$60. 286-0795.

WEIGHTS - and weight bench, good cond. Tom, Ext. 4819.

PIANO - Hardman console w/bench, medium wood, asking \$900. Ext. 3872.

WEIGHTS - no bar (4) 14.4 lbs., (4) 8.8 lbs., (2) 4.4 lbs., \$20 takes all. Lou, Ext. 2050.

BIKE, BMX-type, "Predator", all chrome, excel. cond., \$75. Ext. 3256 or 473-8762 after 6 p.m.

POOL TABLE - 4x8 slate, extra balls + many accessories, v.g. cond., \$600. Mike, 758-2457.

Audio, Video & Computers

COLOR TV - portable, Goldstar, 13". Sergio, Ext. 3514.

STEREO - Marantz, remote, 120 W/channel, programmable CD/mem., dual tape, high speed dubbing, more, 5 mo. old, \$1,300. Dave, 821-0250.

TELEVISIONS - 2, 19" color, good cond.; marble top commode; pine desk; small mahogany book holder; painted table w/drawer. 286-8552.

PROJECTOR SCREEN - folding, \$10; luggage cart, \$5; log hoop and basket, \$10; transformer, 110-240 V, \$5; more. Judy, Ext. 2590.

STEREO CASSETTE RECORDER - Pioneer, \$25; Technics stereo cassette recorder, \$25; Sansui stereo FM receiver, \$25. Rich, Ext. 7975 or 744-0024.

MUSIC SYSTEM - Wurlitzer digital double keyboard, Model D-S, list for \$700, asking \$350. 261-7296 after 4 p.m.

SPEAKER - Fisher, walnut, \$20; oak rolling bar, \$20, oval mirror, \$10; walnut bookcase, \$20; slide projector \$20. Kathy, 744-2203.

ARCADE COMPUTER GAMES - Trivia, Money Makers, cost \$3,000 ea., asking \$2,000 ea. Pete, Ext. 5105 or 399-2813.

COMPUTER - Aquarius 17k, complete system: printer, data recorder, file and fin form, games, like new, \$90. Ernie, 588-4987.

RECORDS - mostly early 70's rock and classical LPs, good to excel. cond. Scott, Ext. 3369.

Miscellaneous

CRIB - w/mattress, \$40; baby swing like new, \$35. Aoki, Ext. 3748 or 345-3271.

STROLLERS - 1 Gerry double umbrella w/canopy, \$90; 1 Cosmos single folding carriage, \$75. Mark, Ext. 5350 or 369-0793.

OPERA - at BAM, Atys by Paris Opera, May 19, two tickets @ \$25 ea. Bob, Ext. 4044.

JACKIE MASON TICKETS - 3, Westbury Music Fair, May 19, \$35 ea. Cindi, Ext. 3651 or 331-3569.

MEDICINE CABINETS - 2 avail., wall opening 14x18x3 1/2, glass doors, almost new, excel. cond., \$15 ea. Don, Ext. 2981.

NATIONAL GEOGRAPHIC - 330 issues, from 1951 to present, make offer. Ext. 4090.

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

BROOKHAVEN - furn. 3-bdrm. house, eik, l/r, d/r, den, 2 1/2 baths, screened porch, one-acre lot, avail. mid-Aug. for 1 year, \$1,000/mo. + 1 mo. sec., refs. 286-0263 eves.

CENTER MORICHES - office space, Main Street, reasonable rent, will alter to suit. 878-1178 or 874-2934.

CENTEREACH - newly decorated furnished room, priv. ent., w/w, cable, share util. and bath, \$350/mo. + 1 mo. security. Ext. 4764.

MEDFORD - 3-bdrm. condo, 1 1/2 baths, w/w, all appliances, c/ac, pool, tennis, golf, \$975/mo. Ext. 3921 or 689-6117.

PATCHOGUE - new studio apt., w/w, cable, new appliances, single working person, non-smoker, no pets, walk to village, \$525 pays all. 475-9099.

STONY BROOK - share house, \$339/mo. + util. For appointment call Jim, Ext. 2183 or 689-8284.

WESTHAMPTON BEACH/SPEONK - 2 bdrm., 1 1/2 baths, 5 appliances, approx. 1,000 sq. ft., 8 mos. old, immed. occup. 1 mo. sec., \$850 + util. Rich, Ext. 4834 or 588-0507.

HILTON HEAD, SC - 3-bdrm. condo, 2 baths, sleeps 8, 6 tennis courts, indoor & outdoor pools, jacuzzi, steam room, ocean & golf view. 929-8912.

CAROLINA BEACH, N.C. - ocean vacation, 1-bdrm. condo w/terrace, furn., sleeps 4, pools, w/d, cable, ocean view, weekly or monthly. 289-1831.

HILTON HEAD, S.C. - 2-bdrm. condo, sleeps 6, beach, pool, tennis, golf, Apr.-Sept. \$425/wk. Guy, Ext. 3147 or 585-9149.

For Sale

EAST SETAUKET - 4-bdrm. Colonial, l/r, d/r, family room, w/fp, eik, 1 1/2 baths, full bsmt., 2-car garage, a/g pool, 0.42 acre, 3-V school district, \$192,000. Cheng, Ext. 2958 or 473-6429.

EAST SETAUKET - 4-bdrm. Colonial, 2 1/2 baths, eik, l/r, d/r, family rm., f/p, wood floors, screened porch, 2-car gar., 0.52 acre, new vinyl siding, gazebo, Shiu, Ext. 4395/3372 or 751-8224.

HOLBROOK - 3-bdrm. townhouse, 5 appliances, w/w, 1 1/2 baths, tennis court, swimming pool, clubhouse, private area w/gardened courtyard, 15 min. to BNL. Ext. 2873.

MATTITUCK - wooded lot, Dutch Colonial, 1/2 acre, 4 bdrm., 2 baths, full d/r, l/r w/fp, den, oak floors, full bsmt, encl. breezeway, 2-car gar., cul-de-sac, private creek, low taxes, \$252,000. 298-5383.

MIDDLE ISLAND - Artist Lake condo, 1 bdrm., l/r, kit., bath, a/c, new w/w, dw, pool, gas heat, 5 min. to Lab, sell for \$80,000, or rent \$700/mo., avail. May 10, call May 1. Ext. 3144 or 698-5046 eves.

PATCHOGUE - new cedar/brick high ranch on private 1 acre + cul-de-sac, w/w, GE appliances; Bonus! second kitchen to BNL employees, \$185,000. 736-6687 eves.

ROCKY POINT - Cape, 1/4-acre, 4 bdrm. eik, full d/r, French doors, 14'x22' l/r, Andersen windows, carpeted, bsmt., patio, city water, all appl., more, low taxes, 6 mi. to Lab., \$140,900. 744-3792.

ROCKY POINT - 2-story, alum. siding, 1/4-acre, 2/3 bdrm., eik, 12'x18' l/r, 1 1/2 baths, new kit. cabinets, carpeted, drapes, curtains, w/d, cable, city water, low taxes, walk to all, \$120,900. 744-3792.

SETAUKET - N. of 25A, 4-bdrm. contemporary Cape, skylights in kitchen, f/p, many custom extras, lovely country setting, 1/3 acre, mint cond. P.J. Vincent, 689-8675.

SETAUKET - 3-bdrm. L-ranch, Enchanted Woods, cul-de-sac, 2 baths, eik, l/r, d/r, rec. rm., wood floors, patio, bsmt., attic, 2-car gar., c/ac, 1/3 acre, 3V SD, \$220,000. Ext. 5265 or 584-8339 after 6 p.m.

WESTHAMPTON BEACH/SPEONK - Hampton Villas, 2-bdrm. townhouse, 1 1/2 baths, c/ac, swimming pool, 5 appliances, \$149,500. Rich, Ext. 4834 or 588-0507.

PALM COAST, FL - 1/4-acre lot, 80'x125', 5 mi. to Atlantic Ocean, 24 mi. N. of Daytona Beach, water, drainage & sewage util. in, \$11,995 or \$1,995 and assume. Thomas Nolan, Ext. 5265.