BROOKHAVEN BULLETIN
Vol. 44 - No. 12 March 23, 1990
BROOKHAVEN NATIONAL LABORATORY

Protecting the Environment: New Task Force Reaffirms BNL's Commitment

This is the last part of a four-part series about the Tiger Team and other environmental, safety and health initiatives of the U.S. Department of Energy, and the relationship of these initiatives to BNL.

Initiated by Energy Secretary James Watkins, a new culture is sweeping through Department of Energy (DOE) facilities. The culture pertains to attitude — a new determination to address safety and environmental concerns effectively so that research can continue uninterrupted. And BNL, led by Laboratory Director Nicholas Samios, is strongly committed to supporting this attitude.

To this end, Samios requested earlier this month that Deputy Director Martin Blume form and head a Task Force on Safety and Environmental Protection, which will lead Lab personnel in a heightened awareness of their individual responsibilities to safeguard their surroundings.

As Blume sees it, "The key to a sustainable safety and environmental protection program is the commitment of management, supplemented by education and training. Across the Lab's programs, within each department and division, and down the line of responsibility, we have to work hard toward a common goal."

Accordingly, Blume formed the Task Force with members Bryce Breitenstein, Head of the Occupational Medicine Clinic; Robert Casey, Head of the Safety & Environmental Protection Division; and Gerald Kinne, Assistant Director for Reactor, Safety & Security. Working together, they will ensure that in all areas there is full compliance with necessary environmental, safety and health requirements; that safety and environmental programs in all departments and divisions are properly managed; and that resources exist to address any unusual conditions on a timely basis.

Work started immediately for the Task Force as members began assisting departments and divisions with preparations for the assessment of the Lab by a DOE Tiger Team. The Tiger Team will arrive next Monday, March 26, for three weeks. Then, after a week away from BNL, it will return for one further week, from April 23 to 30.

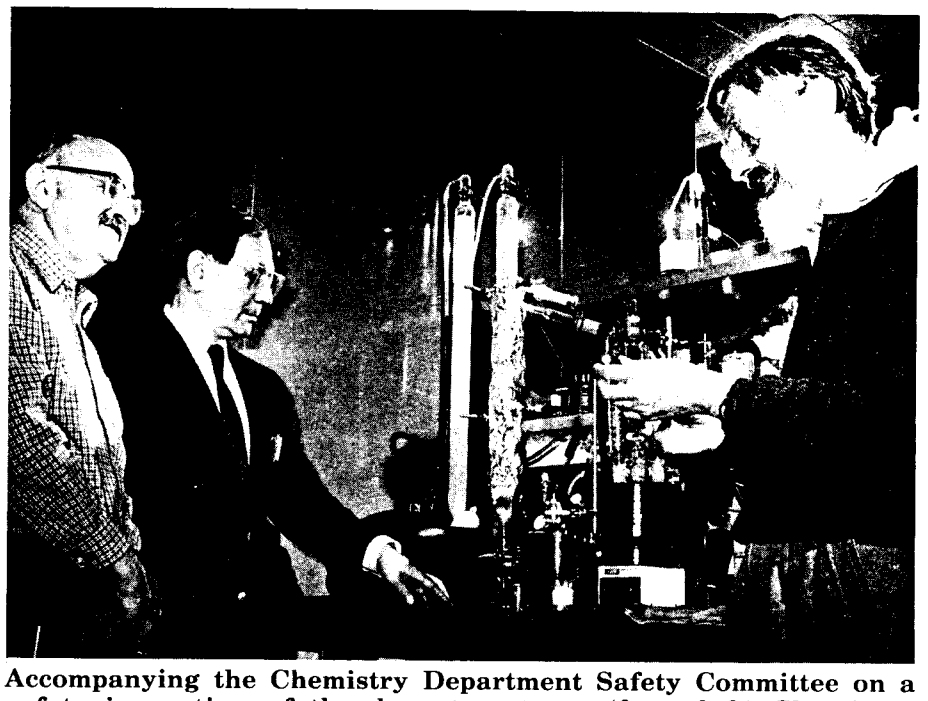
"The standards being investigated by the Tiger Team are not new," said Casey. "We have already been doing these things — but now, we are emphasizing a tight compliance in every area."

Added Breitenstein, "By establishing the Task Force, it is evident that the BNL Directorate is taking a strong leadership role in emphasizing the importance of safety and environmental protection at the Lab."

Preparations for the Tiger Team have included a general tidying up, with Blume and other Task Force members walking through different Lab areas to examine conditions to ensure exact compliance with safety standards. Casey's office is providing personnel to escort Tiger Team members on site. Kinne is handling most of the logistics, which includes providing a fully equipped secretarial staff, scheduling and office arrangements. The Plant Engineering Division will also have a team ready to address concerns of the Tiger Team.

Kinne explained that, from the Tiger Team's assessment and BNL's

(Continued on page 2.)



Accompanying the Chemistry Department Safety Committee on a safety inspection of the department are (from left) Chemistry Department Chairman Norman Sutin; BNL Deputy Director Martin Blume, Task Force Head; and John Axe, Associate Director for Basic Energy Sciences. Here, they stop to examine a reaction setup used to prepare transition metal catalysts for model biomass conversion studies. — Photo by Roger Stoutenburgh

For Women's History Month

Brookhaven Town Honors Betsy Sutherland

Betsy Sutherland — Photo by Stoutenburgh

Betsy Sutherland, a senior scientist in the Biology Department, was one of ten women honored for their achievements by the Town of Brookhaven, in a ceremony on March 19, at the Town Auditorium in Medford.

Each year, Brookhaven Town celebrates National Women's History Month by awarding plaques to women who have made significant contributions to their fields. Sutherland was recognized by the Town's Office of Women's Services for her scientific achievements, which include studies of how ultraviolet (UV) radiation produces genetic damage in human cells and how human cells respond to repair that damage.

Other awards were given to: Margaret Alfano, community service; Paulette Brinka, communications; Rose Compagna, business; Rose Caracappa, government; Judy Fay, religion; Edith Forsyth, medicine; Beverly Jefferson, education; Lisa Parles, law; and Jean Sorbera, the arts.

Sutherland has achieved international distinction for her studies of repair of ultraviolet radiation damage in human cells. In 1985, Sutherland won the U.S. Department of Energy's (DOE) prestigious E. O. Lawrence Award for outstanding contributions in the field of atomic energy, becoming the first woman scientist to be so honored.

When UV light from the sun damages the DNA in skin cells, enzymes try to repair the damage, but when they

(Continued on page 2.)

Scharff-Goldhaber Saluted by N.Y. Academy of Sciences

Gertrude Scharff-Goldhaber — the first woman Ph.D. physicist appointed to the BNL staff — was one of five scientists honored by the New York Academy of Sciences (NYAS) on March 13, in a special program to celebrate Women's History Month.

Gertrude Scharff-Goldhaber

Others honored in the NYAS's Salute to Contemporary Women Scientists were geologist Maria Louisa Crawford, chemist Mary L. Good, geneticist Barbara McClintock, and computer scientist Grace Murray Hopper.

Victoria McLane, a senior physics associate in BNL's Department of Nuclear Energy and a co-founder of Brookhaven Women in Science (BWIS), spoke at the program about Scharff-Goldhaber's contributions to physics, to women in science and to science education.

Born in Germany, she obtained her Ph.D in experimental physics from the University of Munich in 1935. Then, Scharff-Goldhaber did her postdoctoral work at the Imperial College in London until 1939, when she married Maurice Goldhaber, now an AUI Distinguished Scientist emeritus and former BNL Director. They went to the University of Illinois where, in 1942, she discovered that neutrons are emitted in spontaneous fission, and, in 1948, she and Maurice Goldhaber established the identity of beta rays with atomic electrons.

The Goldhabers came to BNL in 1950. Here, Scharff-Goldhaber has studied the systematics and characteristics of a wide range of nuclei and has synthesized the understanding of these static and dynamic nuclear properties into far-ranging models. She is now a consultant to the Physics Department.

In addition to her research, McLane emphasized, "Dr. Goldhaber has long devoted much of her time and energy to promoting science education and to advancing the cause of women in science." Among her many efforts along this line:

- In 1958, she introduced a physical sciences training course at BNL for Suffolk County Science Teachers.
- In 1960, she founded the Brookhaven Lecture Series.
- In 1979, she became a founding member of BWIS and has since been an enthusiastic participant in the group's career days.
- In 1982, as an education advisor to NYAS, she started a program to introduce junior fellows of the Academy to science as a career option.

BWIS paid tribute to Scharff-Goldhaber in 1988 by sponsoring a Nuclear Structure Colloquium and testimonial dinner in her honor. She is also a member of the National Academy of Sciences, as well as a fellow of both the American Physical Society and the American Association for the Advancement of Science. She was a Phi Beta Kappa Visiting Scholar for 1984-85.

For a Job Well Done

NUREG-1150 is a report entitled "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants," published by the U.S. Nuclear Regulatory Commission (NRC). Earlier this year, a second draft of NUREG-1150 was completed, with considerable input from members of BNL's Department of Nuclear Energy (DNE). As described by Denwood Ross, Deputy Director for Research in NRC's Office of Nuclear Regulatory Research, "The research that was undertaken has been very complex and required development of many new and innovative approaches, often under severe time constraints . . . The accomplishments were possible only because of the dedication and hard work of members of the staff and their supervisors at your laboratory and other organizations, who often ignored their personal considerations to complete their tasks."

On Ross's behalf, Robert Bari (left), DNE Deputy Chairman, and Walter Kato (right), DNE Chairman, recently presented Certificates of Appreciation to (center, from left) Nuclear Engineer William Pratt, Meterologist Arthur Tingle and Research Engineer Erik Cazzoli, all of DNE. The certificates read: "In recognition of your outstanding contribution to NUREG-1150 resulting in a significant advancement in the state of technology of probability risk analysis and a major contribution to the Nuclear Regulatory Commission's severe accident program."

In other recent DNE news, Kato appointed Joseph Indusi Associate Chairman of the department, to assist Bari and him with DNE's management. In this capacity, Indusi assumes responsiblity for DNE's security, environment, safety and health-related concerns. He also oversees the department's nuclear material safeguards and arms control activities by continuing as Division Head of the Technical Support Organization.

Betsy Sutherland (cont'd)

fail, the result is skin cancer. Sutherland's research is particularly pertinent today because of the increasing prevalence of skin cancer.

According to the American Cancer Society, there were 500,000 reported cases of skin cancer in the U.S. in 1989, and 27,000 of these cases were diagnosed as malignant melanomas, the most deadly form of the disease. Malignant melanoma is increasing at a rate of 3.4 percent per year in the U.S.

"Melanoma is most likely to occur in people who get a few severe exposures to UV light," Sutherland said. "In other words, people who work in an office all year and then take a week's vacation in Bermuda are prime targets for malignant melanoma." Sutherland theorized that the usually efficient DNA repair mechanisms of these people might be overwhelmed by the sudden, intense exposure to UV light.

Scientists conjecture that the increase in skin cancer is directly related to the destruction of the ozone layer in the earth's atmosphere, so that there is less natural protection against the sun's rays. The sun's UV light changes the genetic blueprint in DNA, causing uncontrolled cell growth that leads to malignant melanoma.

Synthetic Scissors to Cut DNA

One of Sutherland's current research projects, funded by DOE's Human Genome Initiative, involves a technique to cut DNA at specific sites. In nature, this is done by enzymes called endonucleases. Sutherland and her collaborator, Gary Epling, a professor of chemistry at the University of Connecticut, Storrs, have recently developed synthetic scissors — synthetic endonucleases that are used as a tool to cut DNA at locations for which there are no naturally occurring enzymes to cleave the DNA. These synthetic scissors are made by coupling DNA site-specific binding proteins to a light-activated, cleaving molecule such as the rose-colored compound called Rose Bengal.

Using this technique to isolate these sections of DNA, researchers will be able to study and characterize DNA damage for which cells lack specific endonucleases. This new information may give them clues on how these DNA changes lead to cancerous skin lesions. The synthetic scissors will aid in the basic research of mapping, cloning and sequencing human DNA.

An electronic imaging system developed by John Sutherland, a senior biophysicist in the Biology Department, is being used to test the specificity and efficiency of binding and cleavage of each newly created synthetic endonuclease.

— Diane Greenberg

Inside Info

Brookhaven's leading role in advanced materials research during 1989 was recently recognized by ASM International and the Institute of Metals, London. A statistical analysis of their Engineered Materials Abstracts (EMA) data base listed BNL as the source of 31 technical papers during 1989. In recognition of this achievement, the Lab received a research grant to provide full subscription to EMA for 1990, an award worth about $1,000.

Task Force (cont'd)

own findings, an action plan will be formed by May 25. It will state what the Lab will do to correct concerns and the cost of any action.

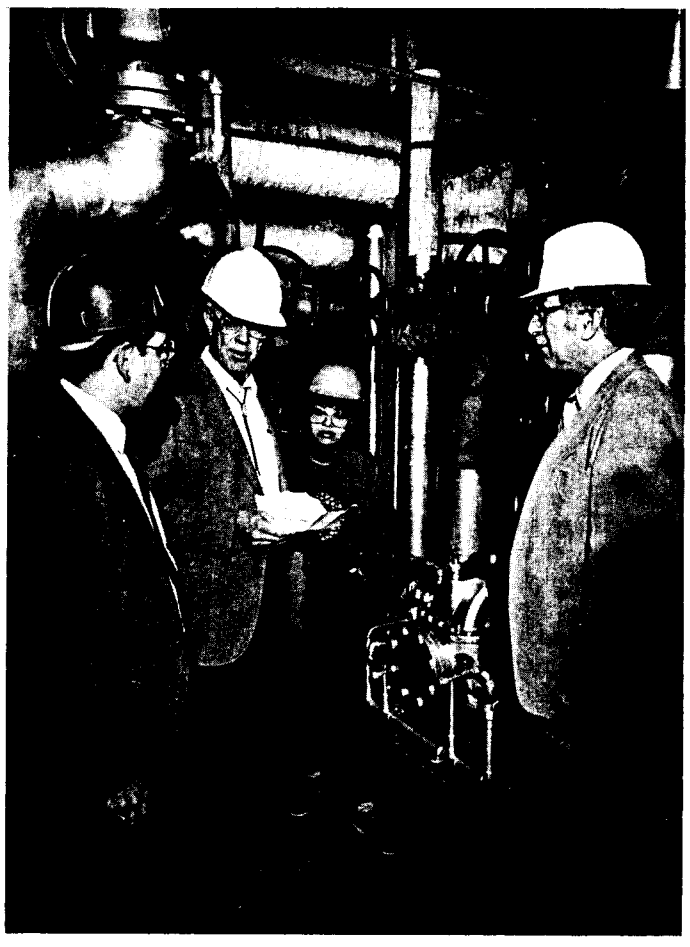
"In a second phase, we shall look at root causes of problems to make sure they cannot reoccur," continued Kinne. "We are concentrating on preparations for the Tiger Team right now, but the Task Force's real purpose is to ensure environmental safety and health conciousness in the long term."

In conclusion, Samios said, "The mission of the Laboratory is research, and we are renowned as a center of research of the highest quality. Our commitment can be no less in protecting our employees and the environment."

— Liz Seubert

On a safety inspection of the Alternating Gradient Synchrotron's (AGS) LESB 2 Experimental Area are (from left) Task Force members Robert Casey, Head of the Safety & Environmental Protection Division, and Bryce Breitenstein, Head of the Occupational Medicine Clinic. They are accompanied by Edward Lessard, AGS, and Derek Lowenstein, AGS Chairman.

Photos on these pages by Roger Stoutenburgh



In the boiler-water feed-pump area of the Central Steam Facility, (from left) Michael Bebon, Manager of the Plant Engineering Division (PE); Task Force member Gerald Kinne, Assistant Director for Reactor, Safety & Security; Patricia Williams, Safety Representative from the Safety & Environmental Protection Division; and Lewis Jacobson, Safety Coordinator for PE, check that safety requirements are being fully met.

Voice-Messaging System Has Openings

For some 14 months, about 120 people at BNL have been using a Lab-wide voice-messaging system, or VMX. Now, the Computing & Communications Division is expanding the system to provide service for a user group as large as 1,000 and is actively soliciting new users.

The VMX works much like a mailbox, where users can leave and pick up messages. Using VMX, a user can:

- send voice messages to other users.
- receive messages from callers, even when the user's line is busy or doesn't answer.
- reply to the senders of messages.
- redirect messages to others, with comments.
- broadcast messages to groups of users.

Because a user can access the VMX from any touch-tone telephone, the system may be used from home or while on trips. It is simple to use, with good documentation and vocal prompts to guide the user through various options.

At present, the system cost per user is about $4 per month. As more users sign up, this cost is expected to decrease.

To be included on the VMX sign-up, contact your department or division administrator. If you have any questions, call Clarence Pittenger, Ext. 4128.

Borrow a Video

The following BNL videotapes are available for loan at the Research Library:

- *BNL Overview — Brookhaven National Laboratory: A National Science Resource Center,* December 1988.
- *The Brookhaven House,* April 1981.
- *Camp Upton: From Basic Training to Basic Research,* March 1989.
- *Danish House — "Hosby House,"* April 1988.
- *Investigating Osteoporosis,* August 1984.
- *IPAP: A Management Tool,* October 1984.
- *NSLS: Brookhaven's National Synchrotron Light Source,* October 1983.
- *The Supercollider,* June 1988.
- *The Superconducting Power Transmission Project,* June 1988.

For more information, call Linda Thompson, Ext. 5068.

New Procedure For Processing AUI Medical Claims

As announced last month in a memo to all employees covered by the AUI Medical Insurance Plan, the Laboratory will go on a direct-claims processing procedure for this plan, effective April 1. This means that all bills must be sent directly to the Connecticut General Life Insurance claims-payment office — not through the BNL Personnel Services group, as has been done up until now.

Last month's notice included a medical insurance enrollment form. Any AUI plan-enrolled employee who has not yet returned this form to Personnel Services, Bldg. 185, should do so immediately, to avoid any delay in claim payments because of insurance coverage eligibility questions.

Next week, all covered employees will receive new medical insurance identification cards and new claim forms. This information packet will also contain a Connecticut General health claim kit, with a sample claim form, instructions on how to file a medical claim and an explanation of the medical benefit form that comes with any claim-payment checks.

Beginning April 1, then, all medical claims should be sent directly to CIGNA, 263 Route 17K, Newburgh, NY 12550, and any questions regarding claim payments should be directed to the Connecticut General Claim Office, (800) 431-4949.

The BNL Personnel Services group, which will still be available to help with any unresolved claim problems, suggests that employees keep copies of all bills submitted for payment.

Additional claim forms and medical insurance ID cards will be available at Personnel Services, Bldg. 185. If you have any questions, call Personnel Services, Ext. 2877.

Gardening Classes

The Cornell Cooperative Extension of Suffolk County (CCESC) is again sponsoring spring gardening classes in conjunction with Suffolk Community College (SCC). Full-day events will be held at the western and eastern SSC campuses on Saturday, March 31, and Sunday, April 1, respectively.

The educational program will include a wide range of gardening classes offered by experts of plant societies, master gardeners and Extension staff. Exhibits and plant sales will also be featured.

For complete program and registration information, write to Caroline Kiang, CCESC, 246 Griffing Avenue, Riverhead, NY 11901, or call her at 727-7850.

Arrivals & Departures

Arrivals

Gerhard A. Ingold.....NSLS
Barbara Juliano.....Fiscal
Kai-Ming Yang.....NSLS

Departures

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

Markus W. Elmiger.....Physics
Charles F. Scott.....Plant Eng.
Alois M. Wallner.....S&EP
Gregory E. Thompson.....Plant Eng.

BROOKHAVEN BULLETIN

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

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TEX Users Meeting

The TEX Users Group will meet on Wednesday, March 28, at 2 p.m., in the Bldg. 515 seminar room. All those interested are welcome to attend. For more information, call Fern Simes, Ext. 3969.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, March 26, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the President's report.

Astronomical Society

Orion and Jupiter are on view tonight — the Astronomical Society's open observatory night. Admission is $1 for nonmembers. Call Keith Powers, Ext. 5355, or Rick Jackimowicz, Ext. 3803, for directions and to see if the weather is suitable.

Radio Club

The Amateur Radio Club will meet in Berkner Hall, Room A, on Thursday, March 29, at noon. The agenda will include the progress of the UHF repeater, the spring session of amateur radio licensing classes, a field day and other upcoming activities.

All licensed radio-amateur employees and employees and guests wishing to obtain amateur radio licenses are invited. For further information, contact Andy Feldman, Ext. 3264, or Bob Bacharach, Ext. 7790.

Mountain Club: Nature Trail Hike

The BNL Mountain Club will hike the Smith Point Nature Trail and beyond, this Saturday, March 24. Interested people should bring lunch and meet at the southwest corner of the Smith Point parking lot at 10 a.m.

The club will next meet on Wednesday, April 4, at 5:15 p.m., at the Brookhaven Center. All members and prospective members should attend.

For information about the trail hike or the meeting, call Rich Casella, Ext. 7975.

Bowling

Pink League

Renie Rosati had a 193/178, Debbie Keating 191, Pat Jencius 183, Pam Meehan 171.

White League

Ed Beadle had a 236/220/650 scratch series, Ken Riker 224, Andy Warkentien 209, Ed Sperry 208, Bob Jones 202, John McCarthy 202, Sam Logan 201, Cheryl Miezianka 191, Lynne Warkentien 188.

Purple League

Clem Auguste had a 203, Sharon Smith 186/181, Karen Vogel 188.

Red/Green League

E. Sperry IV had a 237, A. Warkentien 219, M. Guacci 218, R. Eggert 212, H. Dawson 207, R. Jones 207, K. Riker 205/205; R. Jansson 203, E. Sperry III 201.

Scotch Doubles Tournament

The Scotch Doubles Tournament has been rescheduled for Sunday, April 1, at 1:30 p.m. Anyone still interested in joining or who has questions, please call M. Reynolds, Ext. 5234, or D. Cunningham, Ext. 4599.

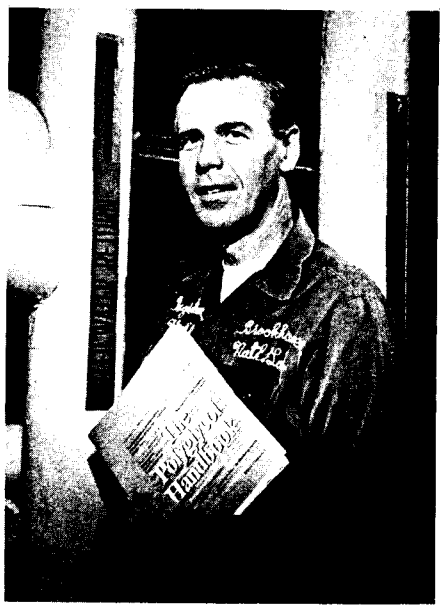
Addled Addresses

- Brickhaven Antl Lab
- Long Island Sound or Current
  Occupant
  9 Money Bog Lane
  Upton, NY 11973
- c/o Brookhaven Lab/Biopsy Dept.
- Ohd
  Med Resc Cent Brookhave
  Ational Laboratory
- Brookeheaven Tech.J

Suggestion Awards

Last year, Vera Meier, a secretary in the Department of Applied Science, had a minor traffic accident on site. It turned out that the other driver did not understand the rules of the road because he was new to this country.

Meier found a way to avoid this in the future, via the Employee Suggestion Program (ESP). As a result of her reminder that Lab visitors are not always familiar with U.S. rules and regulations, the Safety & Environmental Protection Division (S&EP) now distributes informational pamphlets on defensive driving, international road signs and symbols, and bicycle safety in the apartment area, dormitories, Personnel Division and S&EP. As increasing visitors' awareness will provide a safer work environment, Meier received a $25 award from the ESP.



Frank Strebel's suggestion to the Employee Suggestion Program is going to save the Lab about $2,500 annually — so he has received an award of $250. But his suggestion is also rich in environmental savings.

In his job as a refrigeration and air-conditioning group leader with the Plant Engineering Division, Strebel is familiar with the process whereby the water coils that carry chilled water through all buildings with air-conditioning undergo an annual winterization. In this process, antifreeze is used to prevent the coils' freezing up in the event of power failure. When the antifreeze is drained, it must be disposed of.

Until recently, the Lab used an ethylene antifreeze because it was the least expensive. But skyrocketing prices, coupled with the high cost of disposal for this toxic substance, had made the winterizing very expensive.

Thus, Strebel suggested that the Lab use nontoxic propylene glycol antifreeze to winterize the water coils. Now competitively priced, the nontoxic antifreeze and its containers can be disposed of easily, inexpensively — and safely, with no potential to harm the environment.

Golf News

The BERA Golf Association will hold an organizational meeting on Friday, April 6, at 5:15 p.m., in the lounge of the Recreation Building. Membership applications have been mailed out to last year's members. Prospective members may obtain applications by contacting Ron Webster, Ext. 2845. The deadline for returning membership applications is Monday, April 2.

Basketball

Week of March 12

Scram 45		**Celtics 41**	
E. Gregory	21	P. Brubwier	12
S. Nappi	13	B. Turner	9
J. Duggan	5	N. Schaknowski	6
T. Powers	4	J. Wells	5
J. Barkwill	2	D. Hoggard	5
		M. Barrett	2
		A. Jones	2

Three-point shots: E. Gregory, D. Hoggard

Bulls 74		**Runaways 63**	
P. Johnson	41	G. Shepherd	27
S. Gilbert	12	J. Desmond	15
C. Victoria	11	T. Blum	7
G. Smith	6	P. Browne	7
H. Goldsborough	2	C. Norton	7
B. O'Brien	2		

Three-point shots: P. Browne, J. Desmond (2), P. Johnson (4), G. Shepherd

Warriors 78		**Knicks 46**	
T. Mayo	25	E. Hobson	18
G. Mack	14	J. Belz	12
W. Cummings	13	L. Walcott	8
S. Springston	10	F. Thompson	4
K. Biery	4	G. Thompson	4
S. Cramer	4		
C. Edwards	4		
A. Ratti	4		

Three-point shots: L. Walcott (2)

Correction

In last week's Bulletin, the wrong name was given as a contact for obtaining Barry Karlin's computer programs to help complete BNL domestic travel vouchers. For this information, please call Michelle Cummings, Management Information Systems Division, Ext. 2077.

On the Menu

At the Cafeteria

Luncheon served 11:15 a.m. to 1:30 p.m., grill open to 3:45 p.m.; close 4:00 p.m.

Monday, March 26	
Soup: Chicken noodle	.75/.95
Entree: Beefaroni w/1 veg.	3.10
Entree: Chicken curry w/1 veg.	3.10
Fitness: Vegetable lasagna w/1 veg.	3.10
Carvery: Hot beef brisket sandwich	2.85
Grill: Two Italian hot dogs w/fries	2.85
Tuesday, March 27	
Soup: Maryland corn chowder	.75/.95
Entree: Italian sausage hero w/1 veg.	3.10
Entree: Spinach & cheese quiche & veg.	3.10
Fitness: Turkey divan w/1 veg.	3.10
Carvery: Hot pastrami sandwich	2.85
Grill: California burger w/fries	2.45
Wednesday, March 28	
Soup: Cream of spinach	.75/.95
Entree: Fish & chips w/1 veg.	3.10
Entree: Stuffed peppers w/1 veg.	3.10
Fitness: Baked fish amandine w/1 veg.	3.10
Carvery: Hot corned beef sandwich	2.85
Grill: Cheese & mushroom omelet w/fries	2.65
Thursday, March 29	
Soup: Navy bean w/ham	.75/.95
Entree: Baked pork chop w/BBQ sauce & 1 veg.	3.10
Entree: Chicken fajitas w/1 veg.	3.10
Fitness: Tuna tetrazzini w/1 veg.	3.10
Carvery: Roast beef sandwich	2.85
Grill: Reuben	2.85
Friday, March 30	
Soup: Boston fish chowder	.75/.90
Entree: Spaghetti & fish cakes w/1 veg.	3.10
Entree: Yankee pot roast w/gravy & 1 veg.	3.10
Fitness: Broiled sole amandine w/1 veg.	3.10
Carvery: "Greek special" gyro sandwich	3.00
Grill: Seafood nuggets w/fries	2.85
Breakfast served w/coffee, 7:30 - 10:30 a.m.	2.65

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

Classified Advertisements

Placement Notices

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

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

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

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

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

4189. PROGRAMMING POSITION - Requires BSCS or equivalent and a minimum of four years' experience as a programmer. Must have broad knowledge of computers working in an IBM PC and Hewlett Packard 3000 environment. Experience with FORTRAN, COBOL, R-BASE, NEWASK and LOTUS 1-2-3 is necessary. Familiarity with Harvard and DB Graphics, IPAP, JCARS and TEX is desirable. (Reposting of Job #4109). Physics Department.

4190. BUDGET POSITION - Requires a bachelor's degree (advanced degree desirable) in an appropriate field or equivalent and significant experience in accounting. Must have substantial experience in preparing and coordinating budgets, be knowledgeable in Laboratory policies and procedures, and have excellent analytical, written and oral communications skills. Responsibilities will include preparing and coordinating various budgets and working with staff within the Department on other administrative functions. Familiarity with WordPerfect, Lotus 1-2-3 and the operation of data bases highly desirable. Biology Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4191. REFRIGERATION AND A/C ENGINEERS - Requires substantial experience troubleshooting, repairing, installing and operating commercial/industrial air-conditioning and refrigeration equipment, including steam absorption, centrifugal and helical-screw refrigeration machines. Successful completion of refrigeration and A/C apprenticeship program or related course work is highly desirable. Must be able to work shifts as required. (Reposting of Job #4139). Plant Engineering Division.

4192. DATA SERVICES POSITION - Requires AAS in computer science with several years' experience in computer systems development. Knowledge of data base systems and networking, as well as management information and budgeting systems, is highly desirable. Under general supervision, will provide complex computer-support services pertaining to the maintenance of existing systems and development of new systems and data bases. National Synchrotron Light Source Department.

4193. TECHNICAL POSITION - Requires an AAS in electronic technology or equivalent experience, and at least three years' experience in microwave/rf circuitry and/or computer interfacing. Will assist in the development of RHIC beam instrumentation and be involved in prototyping rf and digital circuits, bench-testing beam instrumentation prototypes, and coding and running automated test software. Accelerator Development Department.

Motor Vehicles & Supplies

89 FORD E250 CARGO VAN - ac, p/s, p/b, am/fm cass., 16k mi., 6-cyl., a/t, $12,000. Joe, Ext. 5320.

88 HONDA ACCORD LXI - 4-dr., champagne, p/sunroof, loaded, 40k mi., excel. cond., $10,000. Don or Sue, 473-6570 after 7 p.m.

87 BUICK REGAL LIMITED - 2-dr., black, leather seating, 3.8 litre turbo, a/t, T-top, alarm. 744-8090 after 6 p.m.

86 CHEVY SPECTRUM - 4-cyl., a/t, 65k mi., excel. cond. in/out, asking $3,200. 475-9452 after 6 p.m.

86 FORD ESCORT - a/t, ac, p/s, p/b, 42k mi. 563-2889 after 6 p.m.

86 DODGE CHARGER - a/t, p/s, p/b, ac, am/fm radio, burgundy, excel. cond., must sell, asking $2,500. Ext. 3160 or 289-5704 after 5:00 p.m.

86 BUICK SOMERSET - lt. blue, full power, clean in/out, orig. owner, $5,900 neg. Ginger, 472-6613.

85 MERCURY MARQUIS WAGON - wood grain, ac, V-6, 3.8 litre, p/4-dr., am/fm, cruise, 58k mi., $4,500. Bill G., Ext. 7961.

84 LINCOLN TOWN CAR - p/b, p/s, am/fm cass., alarm, excel. cond., asking $7,000. 727-4041.

84 FORD ESCORT - 50k mi., good body, interior & tires, new exhaust system, needs motor. Frank, Ext. 2314.

84 YAMAHA RZ-350 SPORT BIKE - red/white, tank pack, new Metzlers, garaged, v.g. cond., asking $1,500. Scott, Ext. 7110 or 874-3652.

84 CHRYSLER LASER - 45k mi., orig. owner, immaculate, must see, ac, 2.2L, factory S.R, 5-spd., $3,850. Mark, Ext. 2599.

84 RENAULT ALLIANCE SEDAN - 104k mi., 4-dr., 36 mpg, new brakes, battery, alternator, excel. cond., $1,300. Arnim, Ext. 3824 or 5240.

84 FORD TEMPO GL - 5-spd., 4-cyl., ac, p/s, 67k mi., sunroof. Ext. 4695 or 744-1917.

83 CHEVY S-10 PICKUP - 4-spd., long-bed, 67k mi., v.g. cond. 325-0447.

81 KAWASAKI 440 LTD - 11k mi., new tires, chain, sprockets, brakes, sissy bar, must sell, $600. 474-5715.

81 DATSUN 310GX - stereo, good mileage, runs well, good car for your kids, $1,000 or best offer. Jeff, 727-5194.

80 VW RABBIT - diesel, available for parts. Moorthy, Ext. 4832.

80 CORVETTE - L-82 engine, white/red interior, a/t, p/s, p/b, ac, alarm, 28k orig. mi., $14,500. Rod, Ext. 4428.

79 MUSTANG - V-6, 4-spd., red ext., black int., 87k mi., runs well, $1,700. Rich, 363-6845.

79 SUNLINE TRAVEL TRAILER - sleeps 6, new tires, battery & brakes, stands, awning, $4,100 neg., will deliver. Artie, Ext. 4988 or 325-0743.

78 CAMARO - runs, high mileage, no dents or rust, $700. Rich, 878-1580 after 6 p.m.

77 FORD LTD - ac, runs well, new brakes, $750, Frank, Ext. 2368.

77 PONTIAC TRANS AM - 400 cu. in. motor, TH-350 w/shift kit, stereo, very clean, runs well, alum. rims, asking $3,700. Tim, 281-7873.

77 MERCEDES 300D - sunroof, ac, cruise, clean, 116k mi., great buy at $5,000 neg. Ext. 4028.

76 FORD F250 PICKUP - 4wd, 4-spd., 90k mi., new brakes, cap, runs well, some rust, must sell, $2,200. Ernie, 475-9348.

72 VOLVO - new tires, battery, 4-spd., elec. fuel inj., 4W disc brakes, runs well, some rust, best offer. Paul Stankus, Ext. 3399.

65 DODGE DART - good for parts, best offer. Frank, Ext. 2314 or 567-5131.

SERVICE MANUALS - 1983 Omni, Horizon, Aries, Reliant, LeBaron, 400, N.Y.'er, E class, 600, Rampage, $10. John, Ext. 4615.

SLIDE-ON CAMPER - 11½', fully self-cont., sleeps 4, $1,200. Ext. 4100 or 929-5872 after 6 p.m.

BUMPER - new, plus 4 brackets for compact Chevy truck or GMC Jimmy, all genuine Chevy, $100. 744-9429.

TIRES - nearly new, Goodyear Tiempo, P/235/75R15x4, $120 takes all. Dan, 821-0469 eves.

RADAR DETECTOR - Fuzzbuster Elite, $45. John, Ext. 2372.

OIL FILTERS - 1 case of 12 motorcraft long-life oil filters for 4-cyl. part #FL400A, $25; new chrome gas pedal, $25. Wayne. Ext. 3084.

TIRES/RIMS - 4 General tires, 31x10-R15LT; 4 chrome rims, 6-hole, all new. Lee, Ext. 3084.

LADDER RACKS - for Chevy pickup. Joe, Ext. 5320.

Boats & Marine Supplies

31' C&C SLOOP CLASSIC - shoal draft, family cruiser, fg, teak, Atomic 4, wheel, 7 sails, v.g. cond., asking $16,000. McGeary, 363-2796.

24½' CRUISER - Thompson Express, 1979, $9,995; 18½' Fiberform Runabout, 1978, 120-h.p. O.M.C., I/O, low hr., w/trailer, $4,195. 567-1358.

23' O'DAY - cruising, racing, 6 sails, VHF, Loran depth/speed, Dodger, solo handling, extras, excel. cond., $13,500. 286-1024.

21' INVADER - cuddy, 1984, 120-h.p. Volvo, I/O, FWC, low hr., excel. cond., $8,500. John, 331-3724.

19' BOWRIDER CRUISER - 1972, w/1976 115-h.p. Johnson, Coast Guard pkg., trailer w/electric winch, $3,000. Frank, Ext. 2314 or 567-5131.

19' MARQUIS - 1974, V-hull, full canvas, galv. trailer, $1,650; 1984 115-h.p. Johnson, low hours., $2,200 or $3,600 both. John, 331-3724.

17' SPORTCRAFT BOWRIDER - deep V, 175-h.p. Mercruiser I/O, w/trailer, full canvas, v.g. cond. Rod, 878-1580 after 6 p.m.

14' ALUMINUM BOAT - w/trailer, motor & equipment, like new. 289-5134.

BAYLINER BOWRIDER - 1986, 50-h.p. Force ob., Escort trailer, standard equipment, low hrs. Mike, Ext. 4789.

YAMAHA WAVE RUNNER - 1989, very low hrs., w/trailer & 2 vests, excel. cond., $3,800 or best offer. 744-5133 or 744-1610.

MOORING - 200 lbs. w/chain & float, $100; cradle, steel, rebuilt for keel-type sailboat, 20'-25', $800 neg. Bernie, 331-2298.

CLAM RAKE - $25. Dan, 589-2681.

Furnishings & Appliances

DEHUMIDIFIER - Westinghouse, $75; twin bed, like new, $50; console stereo w/radio, $30; 8-drawer dresser, solid maple, $35. Dan, 589-2681.

WICKER CHAIR - $15. Bill, Ext. 4986 or 563-1940.

WALL UNIT - 3 piece, ivory, glass and mirror, $450. 878-9239.

DISH WASHER - portable, $99; GE clothes washer, large capacity, heavy duty, $195. delivery negotiable. Bill, Ext. 2378 or 758-3284.

BEDROOM SET - 6 piece, Colonial, $250; girl's white bedroom set; captain's bed w/matching dresser, $125; more. Harris, 281-5752 eves.

HEADBOARD - w/bookcase, queen size, $35; large pewter tray, $10; baby chest w/5 drawers, $100. Kathy, 744-2203.

BEDROOM FURNITURE - Colonial, triple dresser, mirror, dresser, $125. 924-1346.

OVEN - GE, cabinet mounted, almond, gas, excellent, $50. Ext. 2888 or 286-0422 after 6 p.m.

MICROWAVE - GE, 1.4 cu. ft., dualwave temperature probe, excel. cond; Kitchenaid dishwasher, under counter, works, $50. Brian, Ext. 2799.

PERCOLATOR COFFEE POT - Farberware, 12 cup, $30. Mark, Ext. 5350 or 369-0793.

DOWN COMFORTER - allergic, king size, light beige, $60; queen size water bed w/heater & mattress cover, $95. Nancy, 744-5133 or 369-1190.

Tools, House & Garden

LAWN MOWERS - 3, all 3½ h.p., Lawn Boy, Rickels, Time Square, 2 need tune-up, incl. seed spreader, $100 takes all. Dan, 589-2681.

LAWN MOWER - Lawn Boy, 21" cut, mulcher attach., excel. cond., $175; 21" cut wheeler, $85, both rear bag. Dan, 698-7322 or Ext. 4987 eves.

SNOW PLOW - Meyers, 7½', power angle, frame lights, mint cond., fits Chevy, $800. 399-3127.

DOUBLE SINK - white, cast iron, $20; gas-powered snow blower, 4 h.p., $55. Bill, Ext. 4986 or 563-1940.

TOPSOIL - fine screened, delivered, 3 yards minimum. 696-6011, leave message.

TUNE-UP CENTER - Snap-On, 3 meters, $250; Snap-On brake bleeder, asking $125; 20-ton air assisted hydraulic jack, asking $200. 474-5715.

CHARCOAL KETTLE GRILL - Weber, large, like new, $30. Mark, Ext. 5350 or 369-0793.

GENERATOR - Niagara 4, 4kW, 120/240 volt, w/over 50' of #12-4 cable, $500. Bob, Ext. 4044.

Sports, Hobbies & Pets

STUDIO PHOTOGRAPHY - auto-pole backdrop stand w/3 rolls paper, Norman power 800D w/4 outlets, 3 strobes, more, neg. Janet, Ext. 2345.

BICYCLE - Schwinn Predator, 20", chrome moly, some special components, excel. cond., $75. 399-6585 eves.

PET PENS - for rabbits or guinea pigs, complete w/feed bowl & water dispenser, $25/each. 654-4661 eves & wknds.

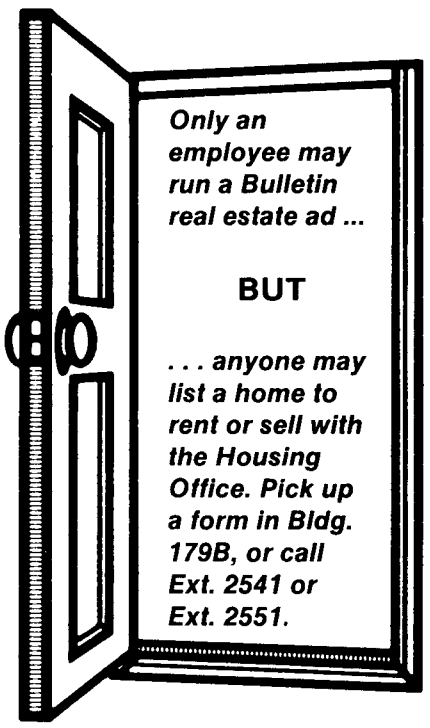
CLARINET - student model, excel. cond., $125; advanced Signet, $250. Jim, Ext. 3372.

PUPPIES - Rottweiler male/female, big bones, Rodsden Shutzhund champion blood lines, parents on premises, AKC, shots. 758-9105.

BIKE - boy's, 20", blue w/banana seat, mint cond., $40. Joe, Ext. 4212.

SOCCER BALL - $5; swim fins, mask & snorkel, $30; woman's golf clubs, $10/each; brass cannon, $10. Kathy, 744-2203.

BICYCLES - man's & woman's, 3-speed, best offer. Harris, Ext. 4417 or 281-5752.



Audio, Video & Computer

CAMERA - Sony Handycam, 8mm, deck w/hard case, $500. Mark, Ext. 5350 or 369-0793.

PLOTTER - HP 7475A multicolor, brand-new, $1,000. Ext. 7699.

COMPUTER - IBM Clone 16MHZ, 40 meg, 28MS, hard disk, 5.25 3.5hd drives, 2 meg ram, plus extras, $1,600. Gary, Ext. 3268.

MONO SYSTEM - IBM-AT compatible, other configuration available, $799. Bill, 496-7946 after 7 p.m.

FM CONVERTER - $10. John, Ext. 2372.

COMPUTER PRINTER - Smith Corona, daisy wheel, TP1, like new, $200 or best offer. Warren, Ext. 4939 or 924-7552.

COMPUTER - Tandy 1000TX, color monitor, dot matrix printer, software, $1,600. Doug, 281-7419 after 6 p.m.

GARRARD TURNTABLE - changer, make offer. Marty, Ext. 3941.

CAR STEREO - Audiovox, 40W, am/fm cass., digital tuner, built-in equalizer, w/2 Coax 6" round speakers, excel., $100. Ron, Ext. 4553.

VIDEO CAMERA - RCA, many features, needs VCR, orig. $400, now $250. Ron, Ext. 4553.

TYPEWRITER - Olympia Werke AG, office type, w/stand, possible antique, asking $40. Cathy, Ext. 2063.

CAMERAS - 2 Graplex 4"x5" cameras, Opter lens F4.7, Beattie Portronic camera, make offer. 929-4326.

Miscellaneous

PICNIC TABLE - w/2 benches, also solid steel umbrella stand, $40. Dan, 589-2681.

TUBULAR WHEELS - Campy Record C, Blackburn, Trackstand, indoor trainer. Ext. 2043.

DOUBLE STROLLER - excel. cond., orig. $225, asking $100; Graco swing w/seat, cradle, music box, automatic, $70. Lew, Ext. 5193 or 928-4863.

EPILADY HAIR REMOVER - $20; suitcase, $10; man's blow dryer, $10; woman's leather boots, assorted sizes, $10/each. Kathy, 744-2203.

PLAYBOY MAGAZINES - 60 issues from 1957 to 1973. 473-2473.

GOWNS - spring/summer, ideal for proms, weddings & parties, worn once, dry cleaned, size 6/8. Ext. 2950.

PORT-A-CRIB - walnut wood finish, w/mattress & bumpers, like new, $45. Frank, Ext. 3121.

Car Pools

BOHEMIA-OAKDALE-SAYVILLE - need 2 more drivers for car pool, also can meet at Exit 59 LI Expressway. Frank, Ext. 2314.

Real Estate

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

For Rent

BELLPORT - large 1-bdrm. apt., unfurnished, new w/w carpet & paint, immaculate, rent includes utilities & garage, must see. Bill, 286-0336.

BROOKHAVEN HAMLET - 3-bdrm. house on quiet, country lane, 2 baths, l/r-d/r w/fp, avail. 6/1, $925/mo. + sec. & util. J. Barry, Ext. 7607, beeper 0830 or 286-0204.

CALVERTON - 2-bdrm. townhouse, w/w, 1½ baths, appl., patio, $750. 878-0874 after 5 p.m.

LAKE RONKONKOMA - 1-bdrm. apt, eik, l/r, bath, priv. ent., cable, w/w, own thermostat, 20 min. to BNL, ½ mi. LIE Exit 60. $675 all, 1 mo. security. 588-2477 after 5:30 p.m.

MASTIC BEACH - new 3-bdrm. house to share w/2 other professionals, 15 min. to Lab., $400 per mo. incl. heat, electric & cable, Jonathan, 395-5221.

MIDDLE ISLAND - loft bdrm. apt., eik, l/r, full bath, cathedral ceiling, skylight, priv. ent. w/deck, cable, no pets, $650/mo. incl. all. Debra, Ext. 2384 or 924-9442.

PATCHOGUE VILLAGE - 3-bdrm., summer rental, fully furn., 1½ baths, deck, covered porch, near beach, private, $1,200/mo. + util., incl. lawn & biweekly maid service. Ext. 3896 or 475-0396.

RIDGE - 1-bdrm. apt., priv. ent., l/r, eik, new appl., 5 min. to Lab, avail. April 1, no pets, $650 includes all. Ext. 5076 or 744-4615.

RIDGE - 1-bdrm. apt., w/w carpet, cable, pvt. ent., 5 min. to Lab, $550/mo. + ½ elec. Mike, 924-0341.

RONKONKOMA - 1-bdrm. apt., l/r, eik, full bath, covered patio, remodeled, priv. ent., close to Lab, $650/mo. incl. all. 234-1507 or 467-2457 eves.

SHIRLEY - 1-bdrm. apt, eik, f/p, l/r, furn. or unfurn., waterview, walk to beach, free cable TV, must see, $650/mo. incl. all util. Mathew, Ext. 5105 or 399-2989.

SOUND BEACH - 2-bdrm., kitchen, l/r, close to beach and shopping, only 20 min. to Lab, $675 + electric. 744-3284 after 5 p.m.

SOUND BEACH - 2-bdrm., d/r, kitchen, 1st floor of house, $700, w/additional bdrm. & garage, $1,000. Eric, Ext. 3677 or 821-9453.

For Sale

BELLPORT - 4-bdrm., waterfront, 2 baths, f/p, screened/glass porch, facing priv. beach, OHW heat, w/d, sweeping bay views. 286-3735.

CENTEREACH - 4-bdrm. high ranch, l/r, d/r, eik, 2 full baths, large fam. rm. w/fp, deck, pool, large fenced yard, $148,900. 698-8514.

CORAM - 2-bdrm. condo, Bretton Woods, l/r, d/r, eik, cac, upgrades throughout, remodeled bath, verticals, track lights, fenced patio, SD #11, golf, tennis, more, asking $119,000. Artie, Ext. 5215.

EAST MORICHES - 5-bdrm., 2 baths, formal d/r, l/r, fam rm., screen porch, greenhouse, country kitchen, wash rm., large 85'x225' plot, detached 1½ car garage, century old, near water, $240,000.

MIDDLE ISLAND - 3-bdrm. townhouse, Coventry Manor, 2 full baths, l/r, d/r, kitchen, laundry rm., 5 appl., cac, pool, tennis, ask. $104,000. Ext. 3160 or 289-5704 after 5 p.m.

MILLER PLACE - 3-bdrm. ranch, eik, l/r, bsmt., oil heat, ig sprinkler, car garage, excel. neighborhood, excel. school, close to Lab. King, Ext. 5516 or 821-1933 after 6 p.m.

NORTH PATCHOGUE - 3-bdrm. ranch, kitchen, fp, full bsmt. w/playroom, low maint. & taxes, appl., louvered porch, ig sprinkler, ask. $129,000 neg. Arnie, Ext. 2040 or 289-1870.

RIDGE - 4-bdrm. Colonial, 2½ baths, eik, d/r, l/r, w/w, gar., deck, ½ acre, minutes to Lab, $155,000. 924-7520.

RIDGE - 2 bdrm. duplex, 1½ bath, eik, cac, w/w, all appl., 5 min. to Lab, $79,900. Erik, Ext. 2437.

SHIRLEY - 4-bdrm. ranch, eik, oak floors, full bsmt., carport, pool w/deck, orchard, garden, fenced 0.4 acre, near beach, $135,000; waterfront lot, 75'x160', w/dock. Alan or Nancy, 281-4673.

STONY BROOK - 4 bdrm. ranch, 2 baths, ig pool, ig sprinkler, cac, 9 rms., new windows, quiet area, excel. cond., $199,995. Rod, Ext. 4428.

WADING RIVER - custom, multi-level contemp., acre, decks, pool, skylights, fp, Jennaire stove, all appl., w/w carpet, quarry tile, jacuzzi, $209,000. 283-0155.

LAUDERHILL, FL - adult com., 50+, 15 min. from Ft. Lauderdale Beach, 1-bdrm. condo, Florida rm., 1 bath, l/r, kit., all appl., pool, clubhouse, $27,500. Maria, Ext. 3341 or 399-3127 after 5:30 p.m.

Wanted

OLD FLOOR SAFE - will gladly pick up. Artie, Ext. 4988 or 325-0743.

HOUSEMATE - male or female to share a beautiful 2-bdrm. apt, furnished, incl. everything for $100/wk. Ext. 2957.

DOUBLE STROLLER - pref. front & back seats, not side-by-side. Nick, Ext. 4979 or 878-6760.

SEAMSTRESS - accomplished, to make curtains, dust ruffles, chair covers, fabric provided. 286-8664.

MINERALS - mineral collections, mineral books, old, any language. Plotkin. Ext. 7974, Wed. only, or 798-2887 other days.

TUBE - audio component by Marantz, Macintosh, Altec, Futterman, REL, W.E., working or not. Jim, Ext. 4584.

HOME - for pedigreed Siberian husky. Dan, 589-2681.

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