BROOKHAVEN BULLETIN

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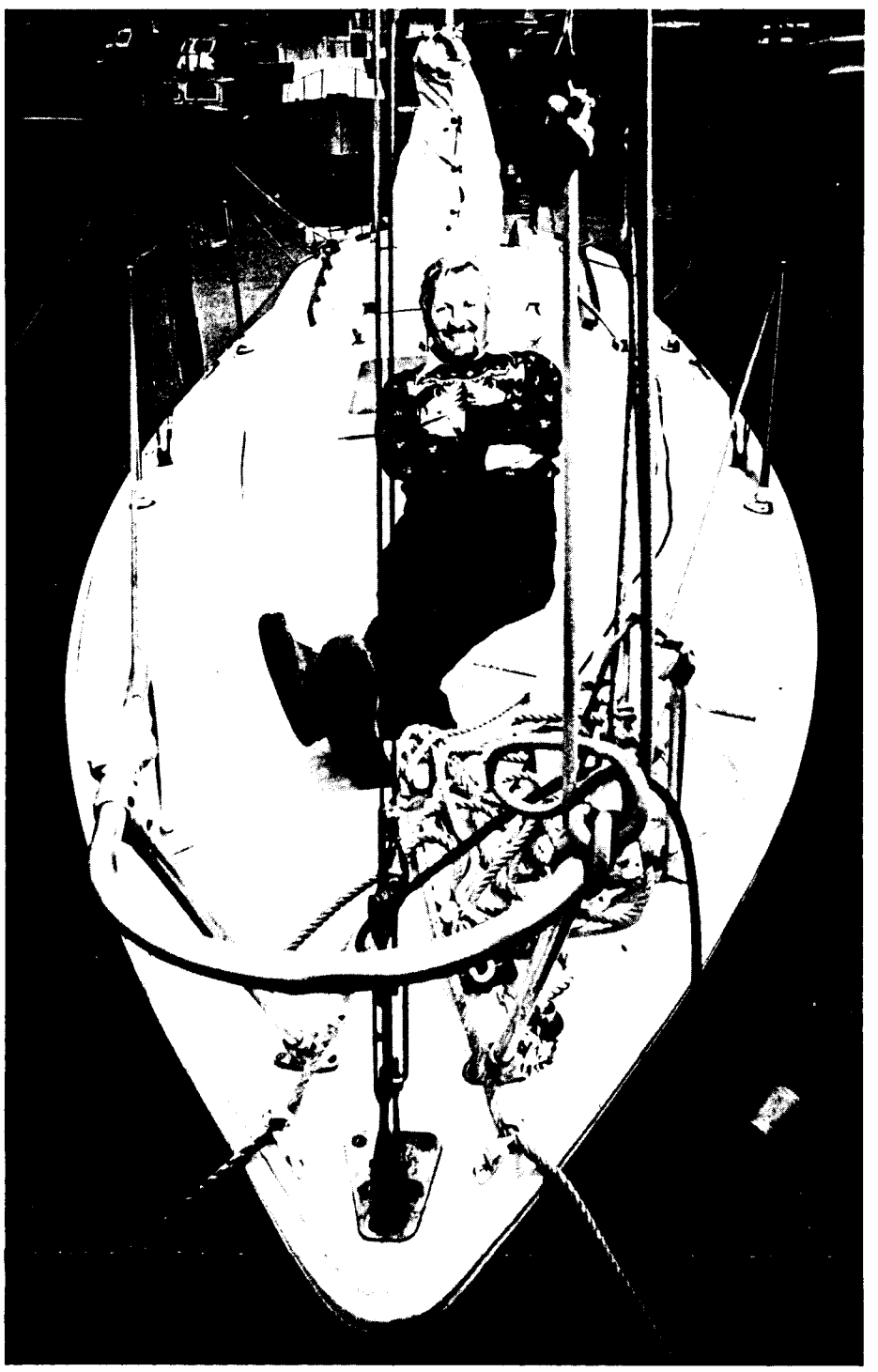


Frank Pechar on his sloop the "Sea Swan."

Atlantic Crossing

When he learned to sail about ten years ago, Frank Pechar said, "some day I'm going to sail across the Atlantic." So that's what he's going to do sometime early in May, if the weather smiles on him.

Pechar is a Technical Associate working for Walter Kane in Physics on the Electron Spectrometer and will be taking his vacation this year to fulfill a dream. "You've got to have some kind of dream in life," he says.

He is now in the process of outfitting his 24-foot Corsair sloop called the "Sea Swan" in preparation for his lone voyage to Ireland. He's going alone? Yes, he is. He says that it's not so unusual anymore and anyway. he's used to sailing alone. Besides he has great faith in the boat and has sailed her all over the place including Block Island and Nantucket.

"The Atlantic can be a terrible ocean," says Pechar, "it's mean." He should know. He spent nine years in the Navy as a 1st Class Petty Officer and has sailed the Atlantic several times in destroyers. He has also been around the world a couple of times, and for eight months in 1946, he lived in China.

May, June and part of July are the best months on the Atlantic, he says, and so, next month, when weather reports indicate five or six days of consecutive good weather, he will cast off from Greenport. He wants this lead time to acclimate himself. He doesn't relish the prospect of running into a storm the first couple of days out.

Does he have any fear? You bet. His biggest fear is not of capsizing but of being run down by a steamer. The larger ships aren't generally looking for smaller boats on the ocean. However, Pechar feels he has some insurance in this respect as a fleet of small boats are leaving from England on June 5 in the Ostar race and merchant ships have been warned to be on the lookout. He hopes they will also notice him going in the opposite direction.

Pechar expects to spend five to seven weeks on the water and will put in at the Royal Cork Yacht Club in Crosshaven, Cork County, Ireland. This is the oldest yacht club in the world and he has received permission from the Commodore to land and leave his boat there. Pechar will make the return trip by air, and if all goes well, may sail the boat back from Ireland next year.

The "Sea Swan" will be equipped with an electric tillermaster, and a horizontal wind vane made in England. Frank Merkert, a Technical Associate in Physics who is interested in Pechar's trip, has devoted his spare time to making him a trim tab auxiliary rudder self-steerer. Pechar will also have on board a collapsible rubber dinghy and a small VHF radio. He will wear a life jacket at all times and will be attached to a lifeline which will prevent him floating away from the boat in the event of capsizing.

He will carry 42 gallons of water, 100 pounds of potatoes, carrots and onions, juices, some canned foods and will do his cooking in a pressure cooker.

There is a lot of work to be done on board to keep everything ship-shape. And when his jobs are done each day, he plans to do a lot of reading, writing and thinking.

Pechar is from Connecticut, but has been living in Patchogue for the last 16 years, the same length of time he has been at the Laboratory. He is married and has four children, two of whom have graduated from college, one is studying to be an optician and one is in high school. Understandably, his wife is not exactly crazy about his latest adventure, but she is probably used to it as he tries to do something "different" every year.

He has flown with a friend in a 1946

(Continued on page 2)

A New Look At How It Happened

Senior Cytologist Arnold Sparrow and Biology Associate Anne Nauman have found what appears to be an overall pattern in the successive increases of DNA among major divisions of organisms. According to their theory, evolutionary increases in DNA may have come about through a long series of doublings and redoublings of a basic ancestral amount of DNA, rather than through small random increases. This is described in an article to appear in the May 7 issue of *Science*.

Sparrow and Nauman anticipate that their paper may stir up a hornet's nest, partly because it is a somewhat audacious departure from currently accepted thought, and also because of its very broad implications regarding our understanding of evolutionary processes and of genome and chromosome structure.

Every living creature contains within each of its cells a quantity of genetic material in the form of DNA (or, in the smallest viruses, RNA) which is typical for the particular species. In general, this quantity of DNA per cell is greater in successively more complex organisms – jellyfish have more DNA than bacteria, insects more than jellyfish, mammals more than insects.

The Sparrow and Nauman findings are a somewhat serendipitous outgrowth of many years of research in plant radiobiology in the Biology Department. Biology Associates Rhoda Sparrow, Lloyd Schairer, Susan Lamm and Eric Klug have been key personnel in carrying out plant irradiations and/or analyzing radiation data.

They found some time ago that the radiosensitivity of a plant species is determined by the average size of its individual chromosomes. Chromosome size is calculated for each species by measuring the average volume of nuclei in thin tissue sections of growing tips, and dividing this value by the chromosome number characteristic for that species.

The group later found that nuclear volume could also be used to predict DNA content per cell quite accurately. Anne Nauman did most of the section preparations and nuclear volume measurements, and Biology Associate Virginia Pond, the chromosome expert of the group, did most of the chromosome counts.

As a spinoff from these studies, a very large amount of basic information was accumulated on about 1100 different plant species. These have been obtained from various sources around the world by Eric Klug, who also oversees the maintenance of plant stocks.

Hoping to note patterns or trends, Sparrow and Nauman prepared the data for computer sorting, with expert assistance from Biology statistician Keith Thompson. Distributions of genome size, or the DNA content of a single set of chromosomes for each species, seemed to indicate that a series of doublings of DNA had occurred within many plant families, such as the grasses.

Wondering if a similar pattern would show up in other types of organisms, they tabulated and graphed data taken from the literature for amphibians, fungi and bacteria, using as a starting point a compilation of earlier work assembled by the Sparrow group several years ago.

Continuing and expanding the compilation, they found that many other taxonomic groups of animals, plants and microorganisms also seemed to show evidence of DNA doublings. An intriguing observation was that the average amounts of DNA per genome at the various doubling points within each taxonomic group were often similar in very diverse organisms.

Then, taking just the minimum amount of DNA for each type of organism, assuming that this was close to the actual minimum necessary to code for that type of organism, they constructed a graph, with a line representing a hypothetical series of doublings starting from the smallest virus.

When the minimum DNA values for each group of organisms was placed on this line, most data points fell very close to the hypothetical doubling points instead of being randomly distributed as might have been expected.

Arnold Sparrow and Anne Nauman

The regression line spanned 25 doublings over eight orders of magnitude. This suggested that genome evolution, and hence organic evolution in general, might have occurred primarily through a continuum of doublings of a basic minimum amout of DNA..

Two scientists at Stony Brook, David Zipkas and Monica Riley, have recently presented genetic evidence that a bacterial species has evolved through two complete doublings of its DNA. This gives experimental support to the new theory.

Other mechanisms for smaller changes in DNA content have been recognized and generally accepted. However, this is the first time that a mechanism has been proposed which has both a consistent pattern and an evolutionary common denominator.

Horst Foelsche (right) Accelerator Dept., explains AGS magnet construction to Ramsey Clark, candidate for the Democratic nomination for U.S. Senator from New York, during a recent tour of some Laboratory facilities.

BNL To Host IEA Energy Task Force

Brookhaven has been selected by ERDA to serve as the host institution for an international energy assessment to be conducted by the member nations of the International Energy Agency (IEA). The Agency was organized at the time of the 1973 oil boycott as a subsidiary of the Organization for Economic Cooperation and Development (OECD).

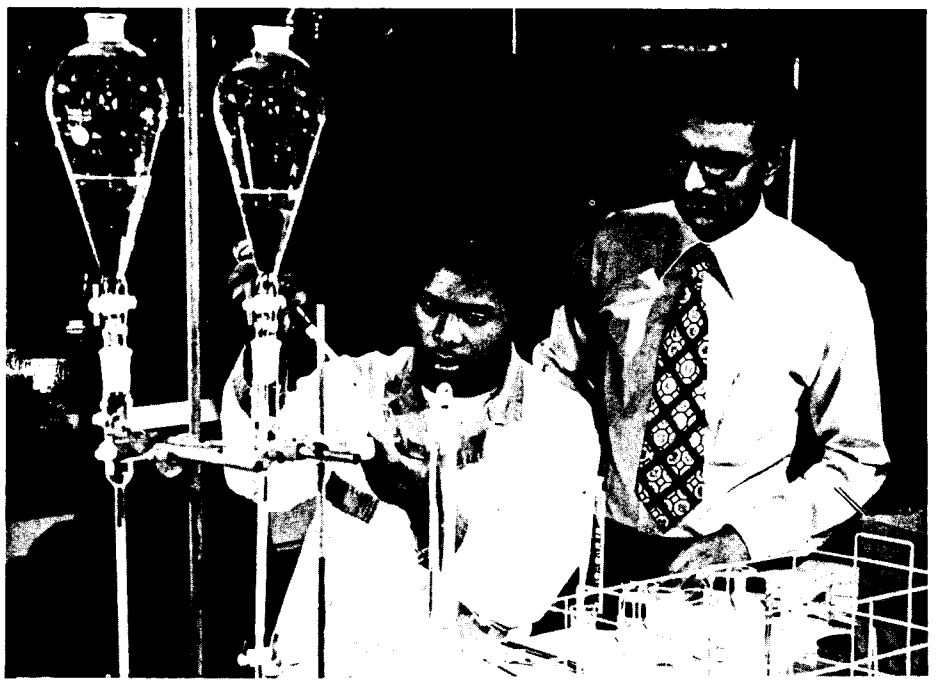
The assessment will be conducted by a task force from several IEA nations within the framework of the Laboratory's new National Center for Analysis of Energy Systems and, in particular, the Policy Analysis Division of the Center.

Most of the national representatives will arrive here early in May and are expected to remain for at least six months. Already on site is Mr. Peter E. Love, Atomic Energy Research Establishment, England, who has been assigned to the Commission of European Communities. Other representatives expected soon are: Dr. S. Yasukawa, Japan Atomic Energy Research Institute; Mr. Shigeo Koyama, Electrotechnical Laboratory, Tanashi, Japan; Mr. Gunnar Leman, Energy Research and Development Commission, Sweden; Mr. Jan Nitteberg, Institute for Atomic Energy, Norway. Harold Bronheim and other DAS staff members will represent the United States. Ireland and Canada are also expected to send delegates. The task force will be under the direction of Vance L. Sailor, staff member of the Policy Analysis Division of the Center.

The goal of the study will be to assemble data on the energy supply and demand in each participating nation, forecast future supply and demand and make an assessment of new energy technologies that might be developed through cooperative research efforts of the IEA nations. The study will guide the Governing Board of IEA in selecting future research and development strategies which might improve the energy independence of the IEA group of nations.

In collaboration with the Brookhaven effort, a parallel assessment will be conducted at the Julich Nuclear Research Center in West Germany.

Le Joyce Hathorn (right), Jackson State College, with her advisor Prantika Som, Medical Department, counts tissue samples for radioactivity in connection with the bio-distribution of radiopharmaceuticals.



Anthony Eason (left), Elizabeth City State University and his advisor A. J. Francis, DAS, look for amino acids using macro reticular resin (XAD) in samples of seawater.

Brookhaven Semester students are winding up 16 weeks of study and research. They have been studying biochemistry, molecular biology and physical chemistry, devoting their mornings to classes and the afternoons to research. Today is the last day of classes and exams. On Thursday, May 6, the students will present their research papers in the Medical Seminar Room. This will conclude the 16th semester of the Brookhaven Semester Program.

Mary Jordan, Tougaloo College, and her advisor Claire Shellabarger, Medical Department, are doing a microscopic study of mammary gland.

Marilyn Sims (left), Jackson State College, with her advisor Karen Schaich, Medical Department, studies rats who have been on diets of varying levels of vitamin E, to determine the effect of this diet on their susceptibility to damage by ozone.

Eva McLemore, Jackson State College, and advisor Myron Ledbetter, check pictures of plant material taken by the scanning electron microscope in the Biology Department.

Benefit Statements Mailed

The annual personalized statement of each employee's present insurance and retirement benefits will be mailed next week to the home address of all regular full-time and eligible part-time employees.

The statement reflects each individual employee's various group insurance coverages (premiums, beneficiaries, and disability benefits) and AUI and employee contributions (including current allocation) to the retirement plan.

The purpose of this statement is to provide employees and their families with a better understanding of their AUI benefits program and to insure that their insurance coverages and beneficiaries are correct and up to date.

Happy Birthday America

If you like sherry, homemade bread, displays of early American items, demonstrations of spinning, quilting, sausage making, etc., meeting with old friends and making new acquaintances, Thursday, May 6, should be a good day for you. It's the day of the Hospitality Committee Spring Tea Party, which will be held from 3 to 6 p.m. at the Brookhaven Center.

All wives and women employees are invited to attend (employees are asked to attend outside their working hours).

Please consider this a personal invitation, in case you didn't receive one in the mail or your husband forgot to bring one home.

Babysitting is available, at no cost to you, in the gym, 3 Center Street.

— Ruth Dimmler

Arrivals & Departures

Arrivals

Glenn W. Boyce, Jr. .....Applied Science
Frances A. Burr.....Biology
William A. Lynch, Jr. .....Plant Engrg.

Departures

None

What? Another House?

No, Brookhaven is not going into the construction business, but another house *is* being built on site. All the activity behind the tennis court heralds the advent of a masonry house able to store significant amounts of thermal energy. The house will be exhibited at the Energy Fair May 12–16.

It is of the same physical and thermal design as the frame house now going up rapidly besides Berkner Hall, with some important differences.

The idea for this type of structure was outlined in a July 1975 informal paper "Enthalpy Management in Buildings: An Analysis and an Integrated Approach" by DAS staff members F.J. Salzano and J. Batey, and Professor A.L. Berlad, State University of New York at Stony Brook. (Enthalpy means the heat content per unit mass of any material substance.)

In order to get additional mass for thermal energy storage for heating and cooling the structure, the framing of the house and the interior partitions are made respectively of 8″×8″×16″ and 4″×9″×24″ hollow concrete blocks. After the blocks are set in place, concrete or sand is poured into the holes, thus making a solid wall which is then bonded with a surface bonding agent. Concrete has been used because it is an inexpensive, readily available, high density construction material.

When all this masonry is put together, the house will have a lot of mass – over 100 tons – in contrast to a frame house which weighs approximately 25 tons.

Another energy conservation factor is the use of a heat pump. Warm air is blown on the inside walls and circulated within the floor slab in the winter. Air and water will be used to cool the building. The concrete walls store the warm or cool air.

An additional conservation feature is the use of foam insulation attached to the *outside* of the blocks. A protective and decorative exterior siding is placed over the exposed insulation. Foam insulation is put under the ducted slab floor and fiberglass in the ceiling.

According to reports, the masonry house can be put up faster than a frame house. Both houses are of the same size, 1,120 square feet, and have been designed to be within the financial range of the average home owner.

Lou Harson, Principal Architect of the Laboratory, who coordinates the construction of the masonry house with Bruce Morrison, Owens Corning Fiberglas, expects that "the masonry house will have great potential for energy conservation research." For example, the addition of solar collectors and off-peak energy use is practical because of the thermal storage capacity of the building.

DAS is contributing funding and expertise to this project. As with the frame house, the Long Island Builders' Institute is cooperating with the Laboratory in the building of the masonry house. In particular, R&M Pearson, local contractors, are responsible for the actual construction.

In the fall, both houses will be moved to another site at the Laboratory and will be occupied and monitored for thermal performance. LILCO and DAS are expected to monitor the frame and masonry houses. The houses have been designed so that as research develops, new concepts and devices may be added.

Crossing (Cont'd)

Aeronca Champ to Virginia and Maine. In this plane, which has no radio, they have force-landed in a potato field and on the beach. With the same friend, he went to Canada in a 17 foot runabout via the Hudson River and Lake Champlain. "Coming back," he laughs, "we missed a buoy and went over a dam." They happened to have a gasoline drum centered in the boat and landed just fine.

So, now, Pechar feels he is committed to crossing the Atlantic. His trepidation is mixed with a great feeling of excitement, and he is determined to give it all he has. "You get old so damned fast," he says. "It seems like only yesterday I was 16." He will be 49 in May.

COM Is Coming

During June and July the Technical Photography and Graphic Arts Division will install a computer output microfilm (COM) system at the Laboratory. The COM system combines electronic, photo-optical, and electro-mechanical techniques and converts digitized computer output into human-readable alphanumeric or graphic images which are automatically recorded on microfilm instead of paper.

An exhibit of microfilm readers will be held on May 3 and 4, in Room B of Berkner Hall, from 11 a.m. to 4 p.m.

Scientists, engineers and administrators, who are currently buried under mountains of paper, should take time to see this exhibit and familiarize themselves with the readers. Each reader on exhibition handles COM output. They have slight differences in size, price (all under $300), screen color, magnification and blowback ratios which must be evaluated.

Reports Available

The following reports are now available to the Laboratory Staff and to affiliates of the ERDA, AUI, and BNL. Others may purchase it from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. Staff members should call Ext. 3484:

BNL-50464 **$6.50**
ENDF/B-IV Cross Section Measurement Standards. August 1975
B.A. Magurno

BNL-50458 **$5.50**
Development of a Computer code for Thermal Hydraulics of Reactors (THOR). Third Quarterly Progress Report - April-June, 1975
Wolfgang Wulff, et al

BNL-50483 **$8.75**
Sourcebook for Energy Assessment. December 1975
M. Beller, Editor

BNL-50485 **$10.25**
Atmospheric Sciences Anual Progress Report, 1974. November 1975
W.D. Tucker, Editor

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Music By Ben Franklin

Benjamin Franklin's "Suite for String Quartet" will be performed by the Community Chamber Players on May 6 at 8:30 p.m. in Berkner Hall.

In this unusual suite for three violins and cello, Franklin had the instruments retuned so that each open string represented a different tone which made it possible for the amateur to play melodies without fingering a single note. The manuscript was found in the Paris Conservatory in 1948 and has been verified as having been composed by Franklin when he was America's commissioner in France. Based on these same melodies, the Players will also perform a modern version of the Franklin suite adapted by Alan Shulman for a contemporary string orchestra.

Mary-Ellen Kitchens (daughter of former BNL physicist Robert Kitchens) will be featured as soloist in Vivaldi's "Concerto for Cello and Strings." Rounding out the program will be Franz Schubert's "Symphony No. 6 C."

Numbering several Brookhaven staff members and their families on its roster, the Community Chamber Players were organized in October 1974 to afford non-professional and student musicians an opportunity to perform fine music composed for the small orchestra and various ensembles.

The concert is free but donations would be appreciated to defray the cost of refreshments. For further information, contact Vance Sailor on extension 3906.

Dig This!

Dr. Philip Weigand, Chairman of the Department of Anthropology at the State University of New York, Stony Brook, will receive the first Annual Golden Trowel Award of the Suffolk County Archaeological Association. Dr. Weigand also conducts research at Brookhaven's Chemistry Department, with Edward Sayre and Garman Harbottle, utilizing neutron activation to "fingerprint" turquoise samples so that trade networks between Western Mexico and the Southwest U.S. may be traced.

This presentation will be part of the first archaeological conference ever held on Long Island. The conference is scheduled for May 1, 9:00 a.m. to 2:30 p.m. at the Setauket Neighborhood House, Setauket. It will include workshop sessions and a panel discussion by people prominent in archaeology. Registration fees: members $3.00; non-members $5.00. For further information call Gay Levine 929-8725.

Trip To New York City

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, May 12. Departure will be at 8:59 a.m. from the LIRR station in Patchogue. The round trip fare for adults is $2.45; children under 6 years ride free.

Reserve a ticket by sending your fare first class mail to "City Trip", P.O. Box 322, Upton, N.Y. 11973 no later than May 6.

Public Sale Of Motor Vehicles

Twelve (12) vehicles, located at Warehouse T-87, will be available for Public Sale.

Inspection will be permitted from May 10 through May 14, during the hours of 9 a.m. to 4 p.m., except Saturday and Sunday.

Bids will be opened on May 18, 1976, at General Services Administration, Business Service Center Bid Room, 26 Federal Plaza, New York, N.Y.

This will be an informal competitive bidding. Bid forms may be obtained at Buildings 87 and 211. For further details, please call Extensions 2302 or 2977.

Cool It

With the advent of warmer weather the Laboratory is asking all employees to save energy on air conditioning. For personal comfort not related to experiments or sensitive equipment, employees are asked not to cool their offices or laboratories to lower than 78°F.

Since air conditioners come in a wide variety of shapes and sizes operating on different principles, a simple setting of the thermostat may not be the answer to maximum energy savings. If there are any doubts or questions, they should be referred to the Departmental Administrator or Energy Conservation Coordinator.

All air conditioners have some form of a refrigeration unit to lower the temperature of the air. In a simple window unit the refrigeration device consists of a refrigerant compressor driven by an electric motor.

Some air conditioners have the added function of humidity control. This is done by lowering the air temperature below the comfort range to remove moisture and then by use of more energy, reheating to the desired value.

The following rules should be observed for the three main types of air conditioners installed at the Laboratory.

During Working Hours

For areas that are cooled by window type air conditioning units or self-contained air conditioning units without reheat:

1. Do not turn units on until space temperature is 78°F or higher.
2. If units have fan speed control, set at low speed. During the warmest period of summer, usually when outside temperature is 85°F or higher, it will be necessary to run the fan at high speed. On some units it is labeled as "Hi-Cool" and "Lo-Cool."
3. If units have calibrated thermostat, set at 78°F. Units with a "Warmer-Colder" type labeling on thermostat, adjust control until unit maintains 78°F in space as registered on a desk or wall thermometer.

For areas that are cooled from a central system with reheat control (steam, hot water or electric) and self-contained packaged air conditioning units with reheat:

1. Set thermostats at 72°F. Note: The space thermostat controls the reheat *not* the central cooling system. Setting the room thermostat at 78°F will cause the reheat coils to reheat the air using additional energy. In addition, those systems which recirculate the air, the higher space temperature will put an additional load on the central cooling system.
2. In those buildings, where the central cooling is for human comfort only, Plant Engineering will raise the control set point of the central cooling system to be consistent with a 78°F space temperature.

For areas that have fan-coil units with dual heating and cooling ability supplied from a central source:

1. Do not turn on units until space temperature is 78°F or higher.
2. Units with fan speed control, set at low speed. During the warmest period of the summer, usually when outside temperature is 85°F or higher, it will usually be necessary to run fan at high speed.
3. Units with a calibrated thermostat set at 78°F. Units with a "Warmer-Colder" type labeling on thermostat, adjust thermostat control until unit maintains 78°F in space as registered on a desk or wall thermometer.

During Off-Hours

1. Where air conditioning units are used for human comfort only, they should be turned off when the space is not occupied.
2. On all other systems, no change to thermostat setting should be made.

Gym Schedule

Due to preparations for the Laboratory Energy Fair and Open House, the gym will be closed to all activities beginning on Wednesday, May 5, and extending through Tuesday, May 18.

Starting on Wednesday, May 19, the following gym schedule for general activities will be in effect until further notice.

Monday through Friday
11:00 a.m. – 1:30 p.m.
5:00 p.m. – 9:30 p.m.

Saturday
10:00 a.m. – 6:00 p.m.
The gym will be closed on Sundays.

Official & Special Events

Monday, May 3
Physics Department Visiting Committee (3-5)
ERDA Operational Safety Meeting
Wednesday, May 5
ERDA Contractors Personnel Conference (5-6)
Geological Survey Site Visit
Thursday, May 6
Concert

Sunday, May 9
Mother's Day
Tuesday, May 11
ERDA High Energy Review (11-12)
Wednesday, May 12
Energy Fair (May 12 – May 16)
Navy Meeting
Builders and Architects Conference & Exhibit House Tour
Thursday, May 13
High Energy Advisory Committee Meeting
Friday, May 14
ESCA Users Meeting
Long Island Association Meeting
Saturday, May 15
Open House '76 (10 a.m. – 4 p.m.)
Sunday, May 16
Open House '76 (10 a.m. – 4 p.m.)

Islander Tickets

Tickets for four additional Islanders home play-off games have been received. A drawing will take place at the BERA Sales Office on Friday, April 30, at 12 noon.

Eligible for the drawing will be all those employees who bought Islanders tickets during the 1975-76 regular playing season.

Softball Players

If you are not already on a team but would like to play softball this season on either the men's or mixed league, call Karen Schaich on extension 3623 as soon as possible.

Selected Reading

Amer. Sci. 64, March-April 1976
The future of physics and astronomy. F. Hoyle. 197-202

Nature 260, April 8, 1976
Why don't animals cheat? J. Krebs. 481

New Sci. 69, March 11, 1976
Fifteen months of new particles. R. Walgate. 556-8
Invention that set the world a-talking. J.G. Crowther. 574-6

New Sci. 69, March 18, 1976
Polymers' postboy: A profile of Tony Challis, SRC's director of polymer engineering. M. Sherwood. 630-2
The case of the missing neutrinos. G. Chedd. 638
The role of the Federal government in the fuel cycle: NRC in the middle. Remarks by E.A. Mason, Commissioner, U.S. Nuclear Regulatory Commission before the Fuel Cycle Conference '76 of the Atomic Industrial Forum, Phoenix, Arizona, March 22, 1976. **Nuclear Regulatory Commission Press Release No. S-4-76**
Safeguarding the fuel cycle. Remarks of V. Gilinsky, Commissioner, U.S. Nuclear Regulatory Commission at the AIF Conference on Nuclear Safeguards, Orlando, Florida, April 12, 1976. **Nuclear Regulatory Commission Press Release No. S-5-76**

Cafeteria Menu
Week Ending May 7, 1976

Monday, May 3	
Corn Chowder	
Beef Liver & 1 veg.	1.10
Scrambled Eggs, Sausages & fr. fr.	1.05
Tuesday, May 4	
Beef Noodle Soup	
Knackwurst & Sauerkraut	1.05
Sauerbraten & Potato Pancake	1.30
Wednesday, May 5	
Cream of Potato Soup	
Beef Chop Suey on Rice	1.05
Davy Jones Fish Fry Special $1.40 plus tax	
Thursday, May 6	
Chicken Vegetable Soup	
Cheese Ravioli & 1 veg.	1.00
Roast Chicken, Stuffing & 1 veg.	1.10
Friday, May 7	
Manhattan Clam Chowder	
Spaghetti w/Clam Sauce	1.00
Breaded Pork Chop & 1 veg.	1.30

Bowling News

Cathy Van Noy

Black & Blue League

Going into position night, the "Good Guys" are four points ahead of the Question Marks. Congratulations to Claudia Tyler (116 Avg.) on her first 200 – a 205. Nice rolling, Claudia! Other highs for the night: Frank Bugala 214, Mary Austin 190, Ellie Murgatroyd 175, Dot Pollock 172, and Debbie Antonio 163. Pots were won by Rich Kalinowski 253 and Mary Austin 249.

End of Season Party

A reminder to all bowlers and their guests – Please return party forms to Marie Brenner, Party Chairperson, Bldg. 134, extension 2456, by May 3.

Tickets for the party will be available on May 6 in Building 134.

Scotch Doubles Tournament

Entry forms for the Scotch Doubles Tournament to be held on Saturday, May 1 from 2 to 6 p.m. at the Port Jeff Bowl, will be available until 4 p.m., Friday, April 30.

Prizes to be awarded include trophies, gift certificates, cameras, calculators and souvenirs for all.

Contact Irving Montanez, Tournament Chairman, on extension 3582 or 3553.

Bicycle Tour Postponed

The beginners tour to Wildwood Park scheduled for April 25, was rained-out and will now take place May 2, starting at Berkner Hall at 12 noon. Bring your lunch. Pre-registration is not necessary.

The two-day tour of Eastern Suffolk May 15 and 16 is still open, but don't delay since last minute registration may result in lack of camping or motel space. The spring bicycle race is still scheduled for Sunday, June 6. For additional information on any event, contact Gerry Morgan, Ext. 4841, Bldg. 815.

Pool Schedule

The swimming pool summer season will begin on May 1 and extend through August 31, 1976.

Entrance Fees

Season Passes
Employee $10
Family $20
Daily (effective May 1, 1976)
Employee/Family Member .75
Guest $1.00

Schedule

Monday through Friday
11:30 a.m. - 1:30 p.m.
Employees Only
5:00 p.m. - 9:30 p.m.
Employees/Families/Guests

Saturday and Sunday
1:00 p.m. - 6:00 p.m.
Employees/Families/Guests

Runners' Corner

The deadline for applications for the BNL Relay Race to be held May 9, has been extended to May 6.

Surprisingly, most applicants have chosen the 5 and 10 mile legs of the relay. More participants are needed for the 2.76 mile leg; thus, if you are a 2 or 3 mile runner, now's the time to "do your thing."

Remember the relay race will be handicapped so you don't have to be a superstar. This could also afford good spring training for the oncoming softball and tennis seasons.

Runners are also reminded that those not wishing to be part of a team may still run as individuals. Friends of Lab employees also may participate either as teams or individuals in the open division.

Applications may still be obtained from Bill Thomlinson, Building 510B, extension 3978.

Volunteers, cheerleaders and sympathizers are urgently needed to handle the myriad of essential chores. Please contact Bob Powell, Building 703, extension 4061.

— Gus Prince

Classified Advertisements

Placement Notices

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice, or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, extension 2874 or 2882.

87. DEVELOPMENT ENGINEER - BS degree or equivalent in electrical or mechanical engineering with experience in fabrication of lapped insulation power transmission cables. Familiarity with modern taping machines and a knowledge of the mechanical and flexible cables. Accelerator Department.
flexiblt cables. Accelerator Department.

88. TECHNICIAN - Document reproduction involving operation of a variety of duplicating equipment. Driver's license and willingness to work shift. Photography & Graphic Arts Division.

89. TECHNICIAN - AAS degree or equivalent in analytical chemistry and approximately three years' experience in chemical analyses. Safety & Environmental Protection Division.

90. MATERIAL HANDLERS - Temporary positions. Application deadline: May 12, 1976. Supply & Materiel Division.

91. TECHNICIAN - AAS degree or equivalent in electrical technology or engineering science with some practical experience in the field. Shift work. Accelerator Department.

Autos & Auto Supplies

72 DODGE DART - Swinger, 2 dr hdtp, auto, ps, r&h, excel cond. $2000. Ted, Ext. 4163/4126.

68 PEUGEOT 404 - 28 mpg, am/fm, sunroof, new clutch, just tuned, good tires. $500. 727-5168 after 6.

73 VEGA GT - 4 spd, excel cond, steel belted radial tires, am/fm, 35,000 mi. $1400. Ext. 3504, 878-1013.

66 PLYMOUTH WAGON - High mi, many new parts, ps/pb, auto trans, new tires. $225. Steve, Ext. 4308.

68 VW BUS - 81,500 mi, eng 39,000, good cond, reliable, asking $875. On site Friday. O'Brien, Ext. 2271.

72 MIDGET - 36,000 mi, am/fm, tonneau, new clutch, new brakes, excel cond, blue w/tan interior, floor mats, garaged. $1800. Lorraine, Ext. 3595/3640.

14" WHEELS - Chevy & Tempest, $5 pair; 2 bbl carb, Rambler, $6. Bob, Ext. 4652, 289-0357.

72 VEGA - Manual transmission, radio, good tires, new brakes & muffler. $600. E. Weinstock, Ext. 2943, 286-0263 eves.

15" WHEELS - Whitespoke, for Ford-Dodge ½ ton, 4 each w/10x15 LT tires. $250. Tom, 744-3709.

66 CHEVY CONVERTIBLE - 283 stick shift, 2 new tires, good running cond, clean. $475. Ext. 2957, 924-3082.

5 RIMS - 14" Buick Stock Rally. $90. Ext. 4003. 924-4373.

73 BUICK ELECTRA - 225, ac, pb/pw & seats, low mi. $3200. 981-5993 after 6.

76 BUICK - Century Custom, white/red interior, radials, mags, am/fm stereo tape deck, ac, Hearst Hatch sun roof. $5500. 981-5993 after 6.

4 RIMS - 14" Chevy. $16. Sandra, Ext. 4207, 727-0560 after 5.

74 DATSUN - 610, 4 dr sedan, ac, am/fm, reclining bucket seats, 110 hp, new steel radials, excel cond, must sell. Asking $3250. 744-2404.

MANUALS - Body & chassis parts books for 1950 Olds. $10 for both. 981-1195 after 6.

TONNEAU COVER - For TR 250, never used, make offer. 981-1195 after 6.

283 CHEVY ENGINE - & auto transmission, runs perfectly. Gordon, Ext. 4613.

68 CORVETTE - 327-300 hp, 4 spd, red convertible. $3875. Tom, 281-5633 after 5.

74 AMC GREMLIN - 6 cyl stick, factory air, 28,000 mi. $1900. 473-1883.

75 PENTON - Motorcycle Enduro, excel cond. $750. 653-5989.

71 TOYOTA COROLLA - Good cond, 53,000 mi, new clutch. $700. Sever, Ext. 4008.

73 GRAN TORINO - Ps/pb, ac, vinyl roof, steel radials, auto trans, beautiful cond. $2600. Ext. 4388, 345-3214 eves.

70 ELECTRA - Convertible, last one made, full power, ac, excel cond. $1675. Ext. 3593.

70 MUSTANG - Mach I, new clutch, radials, needs some body work. $800. 744-1922.

69 FORD GALAXIE - 302 V8, 4 dr sedan, ps/pb, 88,000 mi. $395. Hans, Ext. 3583, 744-4305 eves.

74 DATSUN 260 Z - Red, new tires, excel cond. Adam, Ext. 3241 eves.

71 TOYOTA COROLLA - Standard shift, 27-31 mpg, good cond, new clutch. $700. Steve, Ext. 4008.

75 YAMAHA - RD 350, crash bars, sissy bar w/ storage, rear rack, excel cond, low mi. $1200. Ext. 4702, 286-8586 after 6.

75 YAMAHA 100 - Rear rack, very low mi, $700. Ext. 4702, 286-8586 after 6.

66 CHEVY - 4 dr. $200. 928-4511.

70 AMBASSADOR WAGON - 10,000 mi on rebuilt engine, very reliable. $750. Jean, Ext. 3298, 878-2172.

TRAILER HITCH - For 65-68 Ford Mustang; (2) 14", 5-hole Ford rims. 363-6940 after 5.

TIRES - 2 9.50x16.5 General Jumbo Jet, good cond, both for $30. Paul, Ext. 2023.

64 FORD - New tires, 4 dr, good running cond. $190. Frank, 929-8317.

69 CHEVY IMPALA - Very good cond. $700. 929-8317.

72 YAMAHA - 175 cc, street or trail, under 2000 mi. $395. Frank, Ext. 4095.

VW PARTS - Sedan early to mid 60's, rear bumper, $10; right rear fender, $10. Jay, Ext. 2002.

71 MAVARICK - 6 cyl standard, 30,000 mi, body fair. 273-7931 after 5:30.

70 YAMAHA - 250 cc street m/c, red, excel cond, 6000 mi, trading up to larger m/c, must sell. Glenn, 281-7873.

74 ZUNDAPP ENDURO - 125, excel cond, street or trail. Oscar Sanchez, Ext. 4719, 878-4513.

75 MERCURY - Monarch, metallic brown, 2 dr sedan, 6 cyl, ps, reclining seats, extras, must see. $3500. 281-7464.

67 HONDA - 305 cc chopper, rebuilt engine, molded tank, custom seat, etc. $475. 981-4857.

63 FORD AIRLANE - 6 cyl, auto, 5 good tires, good battery, used for work transportation. $50. J. Dunning, Ext. 4285, 732-4068.

Boats & Marine Supplies

16' SAILBOAT - Fiberglass day sailer, dacron sails, outboard, trailer. $1500. 751-1097.

14' HOBIE CAT - W/beach wheels, like new. $1100. 715-1097.

WINDMILL - 16' Centerboard sloop w/trailer, 2 suits of sails, fiberglass over wood, all equipment excel cond. Ext. 4168.

TRAILER HITCH - Clamps to rear bumper of auto. $6. Les, Ext. 4074.

TIRE - Boat or trailer, 8"x5", 4-hole lug. $10. Ext. 2485.

GAS TANK - 6 gallon OMC, no rust, just painted, no hose. $7.50. Bil Espensen, Ext. 3992.

8' DYER DHOW - Sailing dinghy, fiberglass, almost new, centerboard & oars incl, no mast or sails, $170. Biss Espensen, Ext. 3992.

MOORING - (2) 100# mushrooms, 40' 5/16" chain. 473-2473.

17' GRUMMAN CANOE - Used 3 times. $250. R. Ince, 286-0682.

Miscellaneous

OSCILLOSCOPE - EICO 460, Heathkit test chassis model EF-2, all manuals, all brand new in cartons. $125. Paul, Ext. 2023.

EICO 565 - Volt-ohm milliammeter, new, never used, list price $49.95, $35. Paul, Ext. 2023.

SHEETS - King size, flat & fitted, one each & 2 cases, never used. $10. 744-1917.

OIL TANK - 275 gallon, 10 gauge. $30 firm. 286-8718 after 6.

SHALLOW WELL WATER PUMP - Deming, double acting w/½ hp motor, used very little, $50. 286-8718 after 6.

IRRIGATION PUMP - Burkes model 10 W6, new, 1 hp shallow well jet. $167 firm. John, Ext. 4632.

FIXTURES - Light, $4-5 each; plant hangers, $3 each. 744-5871.

SPRING COAT - Good cond, size 14, $8; men's jeans, new, 34/32, $5 each. 744-5871.

BEDRM SUITES - Used, 2, good cond, could split. 363-7119.

FREE TV - Old 23" Motorola, in nice wood cabinet, still works. Ext. 2605.

TOMATO PLANTS - Supersonic, redpak in 3" peat pots. Izzy, Ext. 3696, 727-1494.

2 RUGS - Floral pattern, rose, green, blue, beige & brown, 9x12 & 3x4, excel cond. $200. 981-1195 after 6.

HALF KEG - Stainless steel, good for mooring, water tank, etc. $5. 981-1195 after 6.

PLATE GLASS - 2 pieces, ½"x16x46¾, cost $90, sell $40. 981-1195 after 6.

5 FULL SHEETS - White marbelized tile boards, $3 each; s/s kitchen sink, 33"x22"x6" self rim, new $8. Chuck, 929-4413 after 5:30.

BOWLING BALL - Blue & white w/gold bag. $5. 981-1195 after 6.

SEWING MACHINE - Remington, 1957 model, working cond. $25. 281-5296.

TRUMPET - Couesnon Paris w/case. $50. Rob, 286-1562 after 5.

2 LOVE SEATS - 1 arm type w/new gold slip covers, $100. Don, Ext. 4650, 473-7809.

SPEAKERS - Electro-voice interface A w/equalizer, modern small speaker system. $300 or best offer. 473-8426.

LAWN MOWER - Scott deluxe reel type, cost $115, sell $35. 744-7861 after 6.

TRAVEL TRAILER - Elec brakes, new tires, ice box, 110v-12v gas lights, oven & stove, awning. $500. 744-0548.

SWIMMING POOL - 15'x42", brand new, still in boxes, incl filter, skimmer, liner, cover, $400. 281-1983 after 5.

WADING POOL - 2'x10', aluminum, new liner, filter, vacuum, Ph kit. 744-3764.

WALL DESK - W/sliding door cabinet & fold down desk top. $25. Ext. 2041.

ORIENTAL RUG - Green/white/red design, 8'x11½', best offer. Ext. 2874.

SOFA - Traditional w/brand new green/orange/yellow print slip covers & matching drapes. Ext. 2874.

WEDDING GOWN - Victorian style, off-white, lace trim, detachable train. Ext. 2874.

SINGERS & MUSICIANS - PA system, 200 watts, 4 half cols, (2) 12" speakers in each, 6 channel, excel cond. Asking $525. 289-0753.

CREE TRUCK CAMPER - Self-contained, sleeps 4. $1550. 472-0499.

STORM DOOR - Aluminum, 36". $5. Charlie Porcaro, Ext. 4679.

TV SET - Table model, wood case, operating, needs a little work. $20. Lew Jacobson, Ext. 2462.

FISHING SEAT - Sears folding, folds to 10x7", used twice, good buy at $2.50. 727-3608.

STRAWBERRY PLANTS - 15 plants for $1. 924-3066, Mon-Fri.

GEM PENDANTS - South American style, beautiful, excel gifts for Mother's Day. 924-3066, Mon-Fri.

TELESCOPE - 60 mm reflector w/zoom objective 15-90x, brand new. $70. Larry, Ext. 3299.

CLARINET - Bundy, Selmar, new cond w/case, wood. $60. 924-3082.

Ads left out of this issue because of lack of space need not be re-submitted in order to run in next week's issue

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Real Estate

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

For Sale

RIDGE - Levitt Strathmore duplex townhouse, 2 bedrm, 1½ baths, central air, w/w carpet, 5 appl. 924-4070, Ext. 3541.

BROOKHAVEN - Colonial 4 bedrm, 2½ baths, 2-car garage, full basement, fireplace in large living rm, formal dining, country kitchen, den, ¾ acre, Middle Is Schools. $47,900. 286-0158.

ROCKY POINT - Custom ranch, many extras, water view, possible mother/daughter, must be seen. $39,900. 744-7861 after 6.

RIDGE/LAKE PANAMOKA - 3 bedrm ranch, full basement, 16x20 sun deck, 100x113 wooded lot, lake rights, Tarkill Rd. $33,000. Ext. 4308, 727-9334 after 6.

LEVITT STRATHMORE - Duplex townhouse, 3 bedrm, 1½ baths, wooded location, ac, w/w carpet, 5 appl, fenced patio, landscaped, low maintenance, owner sacrifice, low 30's. Ridge, 924-3361.

STRATHMORE RIDGE-- 2 bdrm condominium, central ac, upgraded carpet, immaculate cond. $3500 takes over $20,000 mortgage. 924-3666 eves.

CUTCHOGUE - 1 acre bldg lot, water view, beach rights, near schools & shopping. Asking $14,500. G. Laird Stubbings, Ext. 4068, 298-5092.

SHIRLEY - Smith Rd, 3 bedrm ranch, 1 acre w/w carpet, full basement, storms & screens, washer & dryer, swings, garage, barn shed, assumable mortgage. $38,900, completely landscaped. 281-1458.

WADING RIVER - 3 bedrm ranch, 1380 sq ft, oil heat, new well, all appl, basement, finished & carpeted, 4 rms w/elec heat & individual controls, completely paneled, 1.8 acres in Woodland Acres. Helen, Ext. 3415.

HAUPPAUGE - 8 rms, 4 bedrms, excel cond, hi ranch, 2-car garage, ½ acre woods, w/w carpet, fenced yard, lg patio, many extras, low taxes. $1390. $49,900. 234-0783.

PATCHOGUE VILLAGE - 3 bedrm ranch, corner lot, expansion attic, finished basement, landscaped, most appl, country kitchen, attached garage, exterior maintenance free. $34,000. Ext. 2290, 475-7694.

WADING RIVER - Near Sound., fully deeded beach rights, 6 rm ranch, 2 bedrms, bath, oil hot water heat, fireplace, full basement, near patio. Taxes $988/yr. Asking $46,990. 929-6465.

SELDEN - 2 story, 3 bedrm, 2½ baths, 2-car garage, 2 kitchens, family rm, large lot, assumable mortgage. Ext. 2063.

YAPHANK - German Gardens, older house, 3 bedrms, principals only. $23,000. 924-4286.

For Rent

FURNISHED RM - Patchogue village, priv home, off-street parking, suitable congenial mature woman. 475-2627 after 6.

APT AVAILABLE - Pine Hills Country Club, Exit 69, immediate occupancy. $240/mo. 924-8092.

ROCKY POINT - 2 bedrm house, lg living rm, near LI Sound, no pets, couple pref, see to appreciate. 744-9724.

1 BEDRM APT - Unfurnished or semi-furn, 15 min to Lab, avail May 1. $225 incl util. Ext. 3336, 475-8456.

BEACH HOUSE - Davis Park, avail June 26-July 3 & July 10-17. $300/wk. 475-2656 after 5.

BELLPORT - Spacious 2 bedrm apt, lower floor of duplex, private entrance, garage, all util, 1 yr lease reqd, avail May 1. 286-8850.

Wanted

SHORT WAVE RECEIVER - George, Ext. 3370.

SUMMER RENTAL - Help pay for your vacation, visiting univ prof w/wife & 3 children (12, 11, 7) wishes to rent house, Aug 1-27, local refs on request. Dorning, 286-2350.

FURN HOUSE OR APT - For month of June. 744-2594 after 6.

HOME FOR CAT - Bright-eyed, healthy orange tabby, neutered, must find home or destroy. Ext. 2874.

HOMES FOR KITTENS - 5 lovable kittens, must see. Ext. 2874.

14' OR 16' ALUM BOAT - W/15 hp motor, Mirrocraft preferred, will consider other manufacturers. Joe, 765-5373 after 6.

EXPERT NEEDLE PERSON - To repair old lace bedspread. 286-1068 after 6.

GARDENS TO ROTOTILL - None too small, none too big. 588-5833.

HOUSE OR APT - To rent or house sit, 2 bedrm. 473-6900, 9-5.

PERSON WHO CALLED EXT 3609 - About the possibility of renting house/apt for summer months, call 473-6900, 9-5.

GARDEN HOSE - 40-50'. Harris, Ext. 3583, 744-4305 eves.

Car Pools

ROCKY POINT - Want ride, will pay ½ gas. Chuck, 744-1922.

CORAM/STRATHMORE EAST - North of Pine Rd, would like share rides. Joe, Ext. 2063.

STONY BROOK - New employee needs car pool beginning approx May 8. Ed, Ext. 2007.

Lost & Found

WHITE GOLD RING - Engagement w/diamond, Applied Math bldg. Carol, Ext. 4173.

LOST BEGONIAS - Brought up with loving care, please return. Walt Kalinowski, Bldg. 703.

FOUND - Black & white dog, mixed breed, near Port Jeff Yacht Club. 473-1343.

Services

PLUMBING PROBLEMS? - 732-1913.

VW MECHANIC - Guaranteed, good rates. Pete, 281-0268.

ROOFING - Painting, pool service, reliable. Bolster, 363-7406.

YARD SALE - Must sell chain saw, ladder, wheelbarrow, picnic table, vacuums, baby items. Apr 30, May 1 & 2. 744-0548.

YARD SALE - Something for everyone, May 1 & 2, rain date May 8 & 9, E. Islip, Ext. 4532 for directions.

ROTOTILLING - Very reasonable. 588-5833.

PAINTING - Interior & exterior. 751-6431.

DRYWELLS - Installed, reasonable. Mike, 289-5704 after 5.

LEAVES VACUUMED - Tree service, cellars, garages cleaned, light hauling, cord wood. 727-1329.

YARD & GARAGE SALE - May 7 & 8, N. Halsey Manor Rd, Manorville, 1 mi off Exit 70.

LIGHT HAULING - Weekends. Ext. 4003, 924-4373.

TIRES - Passenger car, all types. 281-5563.

GIANT YARD SALE - Sat, May 1, 10-4, antiques, furn, appl, toys, etc. Bellport Methodist Church, Main St., Bellport.

HEMS - Reasonable rates. Sharon, 878-2591 after 6:30 p.m.

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser's property.
3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
4. Firearms offered for sale or trade may not be brought on site.
5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated.
7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

☐ For Sale: Auto & Auto Supplies
☐ For Sale: Boats & Marine Supplies
☐ For Sale: Miscellaneous
☐ Wanted
☐ Carpools
☐ Lost & Found
☐ Services

Check [x] the heading applying to your ad. Print or type your ad in 20 words or less.

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 111, 40 Brookhaven Avenue.

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(Name & Phone No. To Call)

Employee's Signature..... Life No. ..... Ext. .....

Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue (Ext. 2345).