



BROOKHAVEN BULLETIN

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BNL Budget On Its Way



Budget Officer Henry C. Grahn and Budget Analyst Robert A. Baldwin (left) watch as the BNL Budget Request for Fiscal Year 1976 is prepared for transmittal to AEC Headquarters in Washington, D.C. The process of preparing this Budget Request began in January 1974 and was finished only hours before a BNL driver took it to Washington on May 31, 1974, one day before it was due. The basic document consists of 1,984 pages, and with duplicates for use of various AEC divisions totals 105,510 printed pages. Due to the Laboratory's expanded efforts in new areas of research and the growing complexities of the budgetary process, this year's submission is about 23,000 printed pages more than last year's submission, which in turn was about 21,000 pages more than the year before that! Preparation of the FY 1976 Budget Request to the AEC, which includes a total of \$83,491,000 for the operating budget, has involved a great deal of effort on the part of many people in the Budget Office, the Director's Office, and essentially all the various Departments and Divisions at BNL.

Solar Steam—An Answer To The Fuel Shortage?

Most of Brookhaven's buildings are heated in winter and cooled in summer by machinery operated by steam from the central steam plant. The steam is made by burning about 7 million gallons of oil a year, virtually all of which is imported from South America or the Middle East. As a result of recent price increases of imported oil, our heating and cooling bill has risen to disastrous levels. We have asked for and been given some temporary relief by the Atomic Energy Commission but it behooves us to look hard at other possible sources of energy that could serve as substitutes for oil.

If we can find good alternate energy sources, they will find application throughout the whole northeastern part of the United States which is in the same situation as we are. Other areas of the country that are close to sources of coal or natural gas do not yet face so serious a situation but, eventually, they too will be forced to seek alternatives.

Faced with this problem, a team of Brookhaven scientists headed by Garry Cottingham and Ken Green proposes installation of a solar furnace. The sun, they point out, shines on eastern Long Island about 60 percent of the time that it could shine. The heat deposited by the sun on an acre of eastern Long Island is the same as would be produced by burning 100,000 gallons of oil per year. That amount of oil meeting the environmental standards for sulfur content would now cost almost \$40,000.

Projects are now being started in various parts of the United States to produce solar

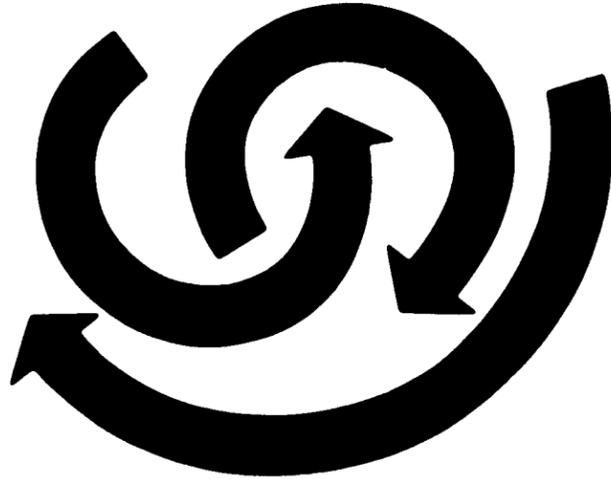
furnaces to make steam at high temperatures (600°C) for production of electric power. These involve enormous arrays of parabolic reflectors reflecting sunlight onto a boiler on a tower 1000 feet or more high. All components must be made with high precision and moved very accurately; these pioneering installations will be very expensive.

The furnace designed by Cottingham and Green, however, will be required to produce steam at only moderate temperatures (around 200°C) to match the output of the BNL steam plant. As a result, the reflectors do not have to be built with high precision, the boiler will be on a tower only 50 feet high and, in Cottingham's words, "the general construction standards will be about the same as those met in farm machinery." Hence, after the preliminary development stage it can be cheap enough to pay for itself in only a few years.

The first array proposed for construction at Brookhaven will collect solar energy from almost a half acre near the east end of Cornell Avenue. It will include 29 simple reflectors like the one pictured; these will be made cheaply of sheet metal or of metal-coated plastic. To follow the sun they will revolve on circular tracks and be tilted by the simple mechanism shown in the picture. Drive motors need be no better than those used in washing machines or in power tools. The whole control system can be included on a small handful of computer chips. In times of bad weather - snow or hail - the reflector will fold itself face down on its mount. When the sun reappears, the reflector

(Continued on page 3)

Pass it on... it was meant to circulate



Only 300 Care Enough To Give Blood

As of Wednesday afternoon, the Public Relations Office had received only 300 pledges to give blood on June 26 and 27. This is just 12% of the total of 2500 BNL employees.

Just recently, nearly 400 students and staff members of Huntington High School pledged blood to help the hemophiliac 4-year-old son of one of the teachers. There are approximately 2000 students and 200 staff members at the High School. The minimum age for blood donations is 18, and 17 with parental consent, which narrowed student donations to seniors and possibly some juniors. As Huntington High School has approximately 650 seniors and 200 staff members, the 400 pints of blood pledged averages out to be nearly 50% of those eligible to give.

It can be argued that people turned out in such large numbers to give blood because it was for the son of someone they knew. With the BNL blood program there is no such urgency, but you never know when it can be your loved one whose life depends on getting blood.

BNL's annual blood drive is held just before the July 4 holiday to prepare for the inevitable number of traffic and other accidents that occur over the holiday weekend. When you or someone in your family is critically in need of blood, and there is not enough in the blood bank, it is too late to wish you had contributed to BNL's blood program.

Everyone who gives blood at the Laboratory will be covered under the Greater New York Blood Program. But for everyone at the Laboratory to be covered, at least 25% of all employees have to give blood. This means we need 625 pledges, as compared to the 300 we actually have. However, the Greater New York Blood Program is hoping for a total of 800 blood donations to cover the great need for blood.

Anyone working at the Laboratory, whether or not he or she is a BNL employee, can participate in the blood program. Non-BNL'ers will be covered for themselves and their families only if they or someone in their family donates blood.

The Laboratory's health insurance through Connecticut General covers only the processing fee for blood - it does not cover the cost of blood, which is anywhere from \$45 to \$75 per pint in Suffolk County, and up to \$125 per pint in New York City. Added to these staggering costs is the fact that the blood bank must constantly be replenished if it is to continue to meet the demand for blood.

In June 1973 there were 557 blood donations when the Bloodmobile of the Greater New York Blood Program visited BNL; this does not include the blood donated during a special drive in January of that year. From July 1973 thru April 1974, 134 pints of blood were released to BNL employees and their families.

For those who may have misplaced their pledge cards or forgotten to fill them out, there is a cut-out pledge card below. Fill it out and send it to the Public Relations Office by June 14. Do it now!

If you have any questions about BNL's blood program, please don't hesitate to call the Public Relations Office, Ext. 2345. We will be more than happy to help you.

Dept.

Address..... Phone ext.

BLOOD DONOR PLEDGE

I hereby pledge to donate blood on (check one) Wednesday, June 26, Thursday, June 27, at the Laboratory gymnasium.

I would prefer either a.m. or p.m.

Name..... (please print)

Signature.....

Life No.

Please return this completed pledge to Public Relations, 40 Brookhaven Avenue, prior to June 14

L.I. Communicators Visit Brookhaven

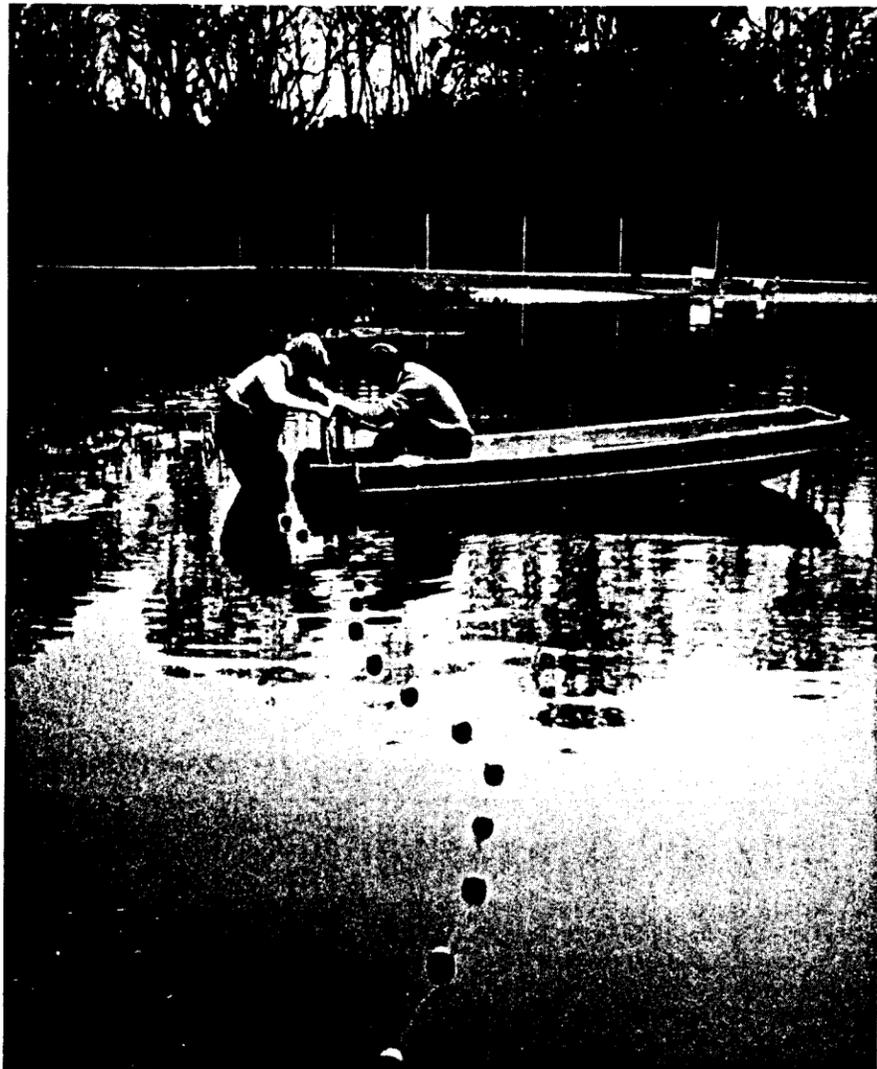
On Tuesday, June 4, approximately 35 members and guests of the Long Island Communicators Association (LICA) assembled at Brookhaven National Laboratory.

In addition to hearing a program about the production of the Lab's newspaper, the *Brookhaven Bulletin*, attendees were treated to a tour of Graphic Arts facilities and the High Flux Beam Reactor. The members of LICA are all editors of company publications like the *Brookhaven Bulletin*.

The program opened with a cocktail hour before dinner in Berkner Hall. After

dinner, R.C. Anderson, BNL's Assistant Director for Scientific Personnel and Public Relations, presented an overview of the Lab's PR operation. Carl Thien, Public Information Officer of Brookhaven, described the problems and pitfalls of putting out the Lab's weekly newspaper. Ken Boehm, Graphic Arts Supervisor, told of the unique way in which the *Bulletin* is produced and led a tour of Graphic Arts.

After the tour of Graphic Arts, members and guests visited the High Flux Beam Reactor before boarding a chartered bus.



Doug Carlson (left) and Rick Wetzler lower a seining net into the pond where they will count fish put there almost a year ago.

Marsh 1 Is Alive And Living At BNL

Nestled among pine trees in the north-eastern part of the Lab site is a living breathing marsh, complete with cattails, lilly pads, frogs and dragonflies. Around this time of year, the twang of croaking frogs is very apparent to the onlooker and if you ignore the rubber pipes surrounding the marsh and the vinyl bottom liner emerging from its sides, you would almost think it was a product of nature.

The undeniable fact is that it is a product of man, created so he can observe the workings of nature. The marsh, known as "Marsh 1," is part of the extensive spray irrigation project, a joint effort between the Biology Department and the Division of Plant Engineering and Planning, and the Town of Brookhaven.

In the Spring of 1973, the marsh began its life as a six-foot hole in the ground. It

from the effluent, says John Ballard of the Biology Department. Those involved in the project hope to find out to what extent the marsh can be used as a "living filter" in returning the sewage effluent to potable water.

The vegetation in the marsh is indigenous to marshes in the area but the experimental marsh is really more diverse than those along the Peconic River, says Ballard. They tried to get as large a variety of plants as possible.

Some of the plants were obtained from a nursery and some were transplanted to Marsh 1 from the marshes along the Peconic River by Ballard and Doug Carlson, a former member of the Biology Department. This vegetation includes cattails, waterlilies and rushes. Bull rushes and sedges were not planted but have appeared in the marsh, indicating that nature seems to have accepted this man made environment.

In June of 1973, the pond in the center of the marsh was seeded with 538 minnows, 210 catfish and 588 clams. Two weeks ago, Carlson and Rick Wetzler seined the pond and their preliminary data indicate that there are close to three times as many fish in there now. By closely watching fish development, using methods such as seining and tagging, they hope to determine the level at which there is maximum productivity.

The researchers are also monitoring the levels of substances going into the system with the effluent and coming out of the system, to determine what is being assimilated by the marsh. So far, the marsh seems to be assimilating all that is put in, says Wetzler.

Oxygen levels, temperature and light penetration are continuously monitored. If there is a dip in the level of oxygen in the marsh, then the levels of sewage being pumped in will be eased.

John Ballard, Doug Carlson and Jim Clinton, all in the Biology Department, have been nursing the newly-created marsh since its birth while Rick Wetzler entered the project a little later in the marsh's life.



Minnows are one of the two fish species living in the pond.

was lined with vinyl which was covered with six inches of topsoil and filled with water. Marsh plants were planted around this central pond and the pond was filled with fish. It was not until a month ago that the first dose of sewage effluent was pumped into the newly-created system.

Each week, approximately 2000 cubic feet of raw sewage is pumped into the marsh through rubber pipes surrounding it. This amount represents 5.87% of the total volume of water in the marsh. The effluent passes through the vegetation and eventually makes its way into the pond. As they continue to add sewage effluent the levels will increase so that in time, the water in the marsh will come primarily

Art Show

The Brookhaven Art Committee will present art works from a current festival of the Art Dealer's Association of America. Selections from five galleries in New York City will be on display at the formal opening of the exhibit in Berkner Hall on Thursday, June 20, at 8 p.m. All are invited.

Weekly Paycheck Now Revised

The weekly paycheck distributed to employees on Thursday, June 6 contained a number of changes that will provide employees with additional payroll data. The principal changes are:

- **Earnings** - are broken down into the various components that entered into the total pay calculation. You will now be able to check the individual calculations of regular time, overtime, shift premium and time off.

- **Vacation** - in addition to showing your balance, you will be provided with the number of days you've taken during the calendar year.

- **Sick Leave** - similar to vacation time, you will have your balance and the number of sick days usage during the calendar year shown.
- **Reimbursable Sick Leave** - will indicate the number of days you have accumulated to date, and the dollar value of the accumulated days at your current rate of pay.

- **Compensation** - In the extreme right hand corner of your pay stub, is a box labeled "Compensation." The difference between your Salary Rate and Pay Rate is the weekly amount of your salary reduction. If you have a Salary Reduction Agreement in effect, the amount on the bottom line of this box indicates how you have it allocated between regular annuity and SRA.

You are also provided with your hourly rate of pay to assist you in any calculations you wish to make.

Should you have any questions, please contact Olga Vario, Payroll Supervisor, on Extension 2487.

Cooking Exchange

Last call! Come to **Eleventh International Dinner of the Cooking Exchange, Wednesday, June 12, at the Brookhaven Center, 5:00 p.m.**

If you haven't made your reservations call: Jane Love, 286-1136; Lee Schwender, 744-5422; Ruth Dimmler, 751-6342; or Terri Pittenger, 286-9471.

This is the big one - Don't miss it.

Marshallese Visit



Amon Anjain, Jebora Kasba and Mike Riklon (seated, left-right) came to Brookhaven from the Marshall Islands. They were here for a week before going to Cleveland to undergo surgery for Thyroid abnormalities. They were accompanied to the United States by Dr. Jeton Anjain (standing center). Dr. Robert Conard and Lois Konon flank Dr. Anjain.

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Arrivals & Departures

Arrivals

Virginia A. Bowman Director's Office
Hsiang-Shou Cheng Applied Science
April J. Donegain Physics
Carl A. Erdman Applied Science
Norman D. Rohrig Applied Science
Richard S. Rozensky Central Shops
Raymond G. Tessmer, Jr. Applied Science

Departures

Patrick R. Bradley-Moore Medical
James B. Brandon Applied Science
Michael W. McDonell Biology
Bettina R. Montalbano Medical

Letters To The Editor

Dear Sir:

It seems to us an acceptable idea to judge the upcoming contestants for the "Ms BNL" contest at Picnic 1974 in a swim suit - only if the "Mr. BNL" contestants do the same (swim suits can also be the entrant's choice).

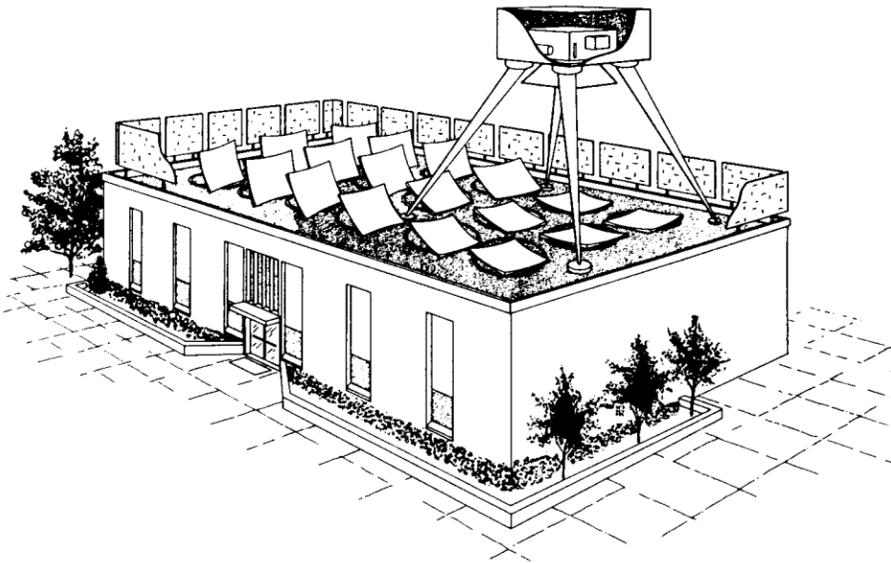
Let's have a little equality here - if you are going to display female bodies, the same should be done with the males.

Kathy Geisler
Carol Sweedler

Dear Sir:

May I leave sincere good wishes to my friends and extend a personal invitation to visit my tennis club in Naples, Florida. Bring your rackets and money.

Jim Brandon



An artist's conception of a solar steam generator on a commercial building.

Illustrations by Rip Bowman.

Solar Steam

(Continued)

tor will arise, dump its snow load, and go back to work.

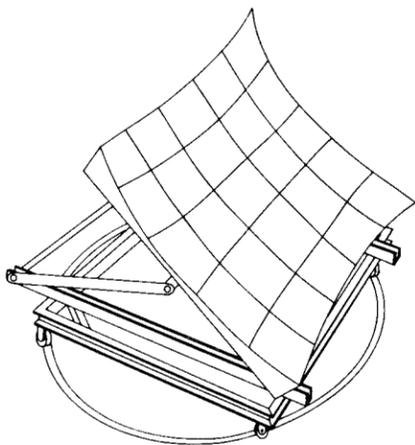
The steam boiler on its tower will be a conventional boiler of the type used in gas-fired steam systems but painted with black, light-absorbing paint. Its output will feed directly into the line from the existing steam plant.

There will be no attempt at energy storage in this first system. It will simply save oil by supplementing the oil-fired system. When the sun is not shining, we will continue to derive all of our heating and air conditioning by burning oil in the existing steam plant.

After this prototype array is operated for a few months, the weaknesses of the system, if any, will become evident and can be removed. Then a number of parallel systems can be constructed using mass production techniques to make a really important reduction in our oil consumption.

The designers of the system point to the fact that, in the Northeast, there are thousands of one, two and three story industrial buildings that could install on their roofs systems just like ours and be perfectly capable of providing the major part of their heating and air conditioning requirements. Steam powered heating and absorption-type air conditioning already are in general use in such buildings. Our second picture shows an artist's conception of a solar

installation on a typical industrial building. After the Brookhaven demonstration we are confident that this system will receive abundant industrial attention.



This reflector concentrates the sun's rays on a boiler mounted on a tower.

Unfortunately funds to develop and construct the prototype system are not yet available. They have been requested and it is our hope that the Washington agencies will appreciate the potential value of this development.

—J.B. Blewett, J.G. Cottingham, G.K. Green



Garry Cottingham (left) and Ken Green are on a plot of land at the east end of Cornell Avenue, across from the steam plant, where they hope to build a solar furnace.

Physics Workshop

High Energy Physicists from different parts of the country, including one from CERN, came together at Brookhaven on Monday, June 3, to begin a week-long Workshop on Physics with Polarized Targets.

The Workshop has been broken up into five areas of discussion: Invariance Principles; Strong Interaction Dynamics - t-channel Processes; Strong Interaction Dynamics - s-channel Processes and Phase Shifts; Electromagnetic and Weak Processes; and, New Directions in Polarization Studies. Each morning has been devoted to a theoretical and experimental review of the topic covered that day and the afternoon has focused on a technical discussion of polarized target technologies.

There are 32 physicists, including 11 from BNL, who are participating in the Workshop which ends tomorrow.

Cafeteria Menu

Week Ending June 14, 1974

Monday, June 10	
Cream of Tomato Soup	
Meat Loaf & 1 Veg.	1.00
Beef Ravioli & 1 Veg.	1.00
Tuesday, June 11	
Navy Bean Soup	
Spanish Omelet & French Fries	.95
Barbequed Breast of Lamb & 1 Veg.	1.10
Wednesday, June 12	
Beef Barley Broth	
Roast Fresh Ham & 1 Veg.	1.10
Special - Broiled Filet of Bluefish & 1 Veg.	1.10
Build your own Banana Split	Tax Incl. .75
Thursday, June 13	
Turkey Noodle Soup	
Broiled Chicken Livers & 1 Veg.	1.00
Braised Beef & 1 Veg.	1.10
Friday, June 14	
Clam Celery Bisque	
Baked Fillet & 1 Veg.	1.05
Spaghetti w/Meat Sauce	.95

Official & Special Events

- Tuesday, June 11**
Cross Section Working Evaluation Group Meeting (June 11-13)
- Wednesday, June 12**
Navy Meeting - 7:30 p.m., Berkner Hall
- Friday, June 14**
High Energy Discussion Group Meeting
- Monday, June 17**
APS Summer Study on Radiation Damage (June 17-28)
- Tuesday, June 18**
Low Level Radiation Effects Meeting - Rooms A & C, Berkner Hall
- Wednesday, June 19**
Navy Meeting - 7:30 p.m. Berkner Hall
- Thursday, June 20**
BERA Art Show - Rooms B & C, Berkner Hall (June 20-July 2)
- Sunday, June 23**
Heavy Ion Transfer Reactor Study Group Meeting (June 23-29)
- Wednesday, June 26**
Blood Bank (June 26-27)

BNL Rifle & Pistol Club

Members! Study your advance copy of our proposed revised constitution, and do express your thoughts on it at our regular meeting on Wednesday, June 12. The entire meeting will be devoted to bringing our constitution up to date.

As a bonus, John Zahra has arranged to have Suffolk County police officer Collins conduct a special program on the safe handling and use of firearms on June 19th. This should be a must for new or inexperienced club members and anyone thinking of joining our club. This special program will be held at the Apartment area recreation building at 5:15 p.m.

Selected Reading

- Chem. Eng. News 52, May 20, 1974
NSF is organizing its energy R & D efforts. 14
- New Sci. 62, April 25, 1974
Guglielmo Marconi. J.G. Crowther. 166-8
- Sky Telescope 47, June 1974
The planet Mercury as viewed by Mariner 10. R.G. Strom. 360-9

Radio Club Meeting

There will be a meeting of the BNL Radio Club on Monday, June 10, at 12 noon in Room B of Berkner Hall.

Picnic 1974

What's so great about this 1974 Picnic? Nothing if you're not there. BERA had its last picnic ten years ago this year. Over 2,000 of us were there and we had a great time. The Special Events Committee of BERA has predicted you will consume over 10,000 hot dogs, 3,000 to 4,000 ears of hot corn on the cob dipped in 35 pounds of butter, 35 kegs of beer, 25 tanks of soda, chips, pretzels, and 36 pounds of sauerkraut for your dogs.

But how do we really know how much to order? You can tell us by buying your tickets right now. You must buy them by June 14th anyway - that's the cutoff date on sales. That will tell this committee to buy 10,000 or 15,000 dogs, etc.

Who is sponsoring this extravaganza? You are, because you are BERA. So if you're paying for this why don't you get something out of it? The price is reasonable - \$3.00 for adults over 13 years of age and \$1.00 for the kids 12 and under.

Come on out! Pitch a tent, fly a flag, fly yourself, get you whole department under one roof. Who cares?

Behind Berkner Hall, not one but two rock bands (The Marshalls and Boston Charlie) are going to turn you on - at least somebody on - for a total of 8 hours. Across the street, in the Theater parking lot, a professional square dance caller will be calling Virginia - reel, that is - from 2 p.m. to 4 p.m. Then comes Ray Alley and His Banjo Cats on the main stage for 4 hours.

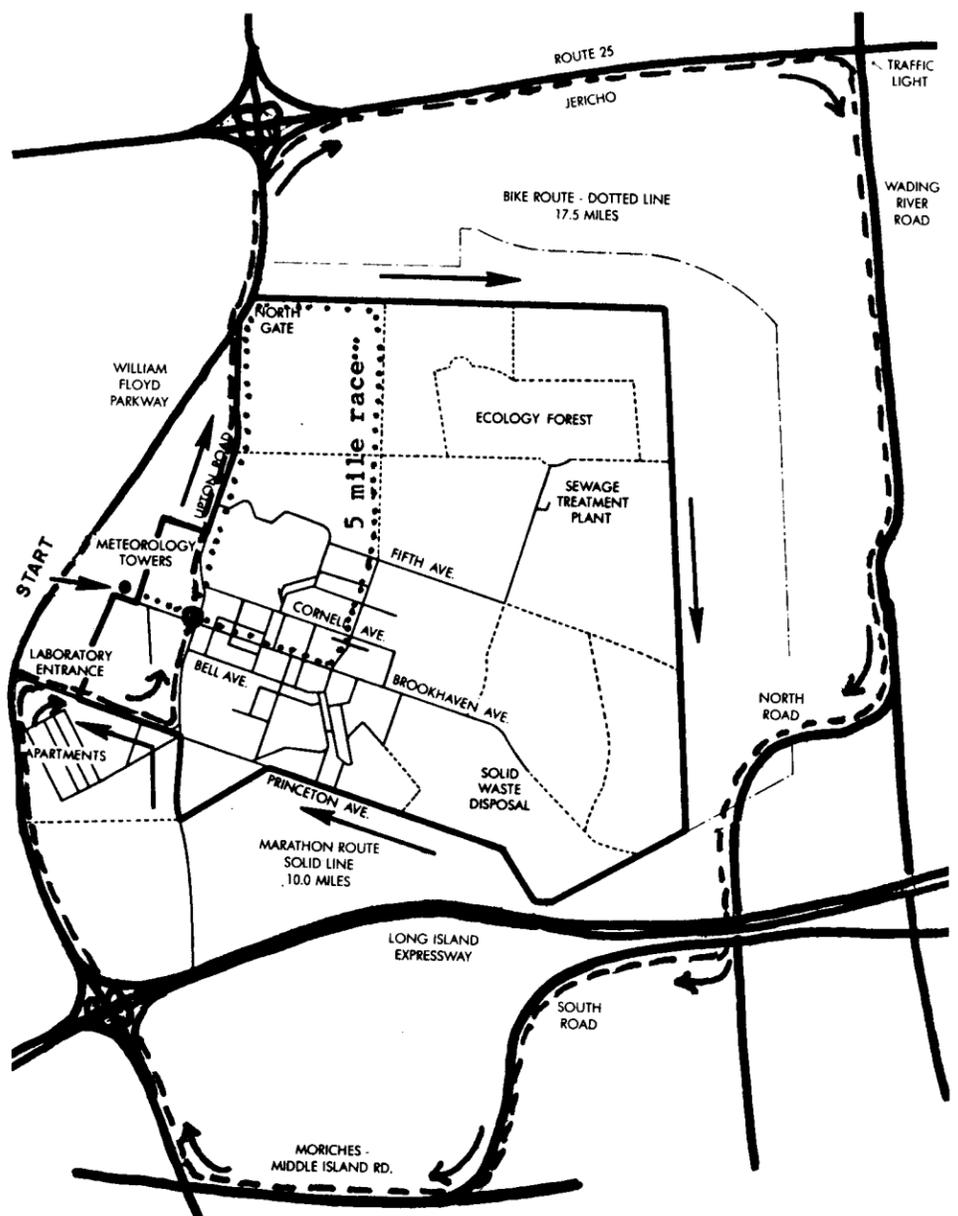
Intermixed with this will be a tennis tournament, a flying exhibition of model planes, an archery exhibition plus a shoot, one-on-one basketball in the gym, a cooking demonstration, and if you care to go for a swim the pool will be open.

Ms. BNL, a thing of beauty and poise and Mr. BNL, a thing of? will have a contest for your enjoyment. The presentation of the winners will make your day.

After you get tired of eating the above mentioned food you can settle your stomach on watermelon, sno-cones, or cotton candy. So really, what are you waiting for? Hop down to your nearest sign that says "Picnic tickets on sale here" or purchase them from the cafeteria lobby pronto. Remember, without the entertainment you've already got a buy!

If you weren't there then, then you must be here now June 22, 1 p.m. to 9 p.m. —Paul Kelly

Perimeter Run-Bike Route Map



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.

HELPER A (1) - Central Shops. Application deadline: June 17, 1974.

CUSTODIAN - Plant Engineering Division.

TECHNICIAN - A.S. Degree or equivalent in Chemistry. Medical Department.

ADMINISTRATIVE ASSISTANT - Bachelor's Degree or equivalent in Business Administration and two to four years experience in budget planning and control. Will assist in broad range of administrative activities which include budget management and the development and use of improved computer based information systems. Physics Department.

INDUSTRIAL HYGIENIST - Master's Degree or equivalent in Industrial Hygiene. Two to three years experience preferable. Health Physics & Safety Division.

Autos & Auto Supplies

13" RIM - 4 holes, for 6.50x13 tire. \$2.50. Ext. 4532.

70 PLYMOUTH SUBURBAN STATION WAGON - 383 cu in eng, air cond, r/h, ps/pb, 4 dr, good rubber & cond. \$1750. Ext. 4532, 581-8412.

67 SUNBEAM MINX - 4 dr, r/h, auto trans, 25 mpg, eng just rebuilt, body & tires good. \$575 firm. Ext. 4532, 581-8412.

60 VALIANT - Runs, new tires, many new parts. Rich, Ext. 4172.

63 FORD - 6 cyl, std trans, good transp, about 20 mpg. \$100. Tom, Ext. 3525.

69 CHEVY ENGINE - 6 cyl, w/bell housing & trans, 50,000 mi. \$125. Ext. 2321.

RIMS & TIRES - 4-13" Ford rims & tires, fit Falcon, Comet, Maverick. 2/\$3 or 4/\$5. Norden, Ext. 4279.

CAMPER CAP - 4'x8' for pickup truck, 289-5393.

73 HONDA 500 - 4 cyl, low mileage, excel cond. J. Dosch, 281-6992.

DUNE BUGGY - Comp rebuilt 40 hp VW eng, wheel adapters, Crager mags, balloon tires, new batt, gas tank, extras. Marc, LT9-5689 after 12 noon.

TIRES - Sears F78-14, on rims, almost new, snows 7.35x14. L. Lasker, Ext. 4134.

63 VW BUG - Rebuilt eng, std shift, good mech cond, new clutch. \$300. 281-0413.

73 FORD CUSTOM GALAXIE - 4 dr sedan, air cond, excel cond. \$2500. 722-4321.

70 FORD MAVERICK - 2 dr sedan, auto trans, 6 cyl, good cond. C. Parente, Ext. 3192.

72 VEGA - 4 spd, good cond, dk green. Asking \$1700. Janet, Ext. 2544, 878-0992 after 6:30.

73 KAWASAKI - 500cc, ext fork 7" & many extras, excel cond. \$1150. Ext. 2231.

62 COMET STATION WAGON - 18 mpg, clean, roof rack, good operation. \$400. 286-0798.

66 GMC 3/4 TON PICKUP - V-6 eng excel cond, body rusting, trailer hitch, extension bumper for camper. \$1400. 286-0798.

66 FORD T-BIRD - 2 dr htdp, clean, \$500; 68 Chevy Corvair, mech good, dents. \$400. 744-5261 after 6.

2 PIRELLI CINTURATO TIRES - 155 SR 14 radials, w/wire wheels. \$10 ea. R. Williams, Ext. 4207, 286-0893.

63 CHEVY BELAIR - Excel cond, 4 new tires, best offer; 65 Nova, excel cond, 5 new tires, best offer. Mike, Ext. 3658.

72 JEEP - V8, 304, auto trans, ps, 4 w/d. \$2900. 281-3409.

HOOKER HEADERS - For '65-70 396-427 full size Chevy, \$40; headers for '66 Chevy Nova sm block, \$40; Holley cast iron intake manifold w/heads (w/o springs) for 396, \$25. Claire, Ext. 2346, 281-8306 after 5:30.

WEIAND ALUM INTAKE - W/new 4 bbl carb, for '64 Plymouth & Dodge, \$50; posi rear for '64 Dodge. Claire, Ext. 2346, 281-8306 after 5:30.

66 PONTIAC LEMANS - 2 dr, needs timing. \$200. HR3-0058 after 6.

74 DODGE COLT GT - 2 dr htdp, 30+ mpg, radial tires, reclining bckts, radio, 1200 mi, excel cond. \$2800. Walt, Ext. 2262, 289-3316 after 6.

2" BALL HITCH - Designed for pickup truck. \$20. Ext. 4243, 281-5050 after 6.

71 SUZUKI MOTORCYCLE - 500cc, excel cond. Best offer over \$650. J. Mazzeo, Ext. 4281, 878-1923 after 5.

61 VW BUG - New eng & clutch, body fair. \$400. Dana, 924-3697.

68 CHEVY IMPALA SS - 2 dr, low mileage, very good cond. \$650. Aubert, Ext. 4815, Ext. 3104 after 6.

71 PONTIAC CATALINA - 2 dr htdp, ps/pb, air cond, 28,000 mi, excel cond. Ext. 2907.

65 OLDS CUTLASS CONV - \$225. R. Kinsey, Ext. 2902, 286-0407.

66 CHEVY BELAIR - 4 dr sedan, excel mech cond. \$250. Don, Ext. 2022, 878-2215.

64 FORD PICKUP - Tan, 6 cyl, 4 spd trans. Asking \$450. O. Newsom, 732-3369 8-3, 698-7588 5-8.

66 KAWASAKI MOTORCYCLE - 85cc. \$125. R. Hildenbrand, Ext. 3274.

67 CHEVY STATION WAGON - Sm V8, auto trans. \$275. 589-4874 after 6 & weekends.

TIRE - 1-6.95x14 used tire, fair cond. \$3. Bill, Ext. 3354.

68 VW BEETLE - Good cond, avail 6/19, gets 31+ mpg. \$650. A.C. Nunes, Ext. 3370, 286-3742.

Boats & Marine Supplies

16' CLAMMING/FISHING BOAT - Outboard, 7' wide, stable & roomy, plywood w/fiberglass seams, 2 seasons old, excel cond. \$300. M. Johnson, 286-8353.

17' AM FINN - 75 hp Evinrude, Holsclaw trailer, extras, ideal for fishing-skiing, priced to sell, 265-2231 after 7:30.

BOAT TRAILER - Sealion 800 lb cap. \$50 firm. 588-5833.

21' SLOOP - Gaff rig, FG over wood, compl equipped, 1971 Evinrude 4 hp. Ben, Ext. 2902.

NEW BOAT TRAILER - Wheel bearing protectors, mfg bearing buddy. Cost \$12.95/pr, my price \$10/pr. Ext. 3280 lunch, 727-3608 after 5.

BOAT - Sears 10" alum Jon boat & 4.5 hp OB 1971. \$150. Isler, Ext. 2405, 941-4696.

15' SHARPIE - Good for clamming, fiberglassed bottom, good cond. Asking \$150. Ext. 3636, 286-8846 after 6.

25' NEWFOUNDLAND DORY - W/30 hp elec start Johnson located in a well amidship, compl w/floorboards & separate rudder. \$400. 286-8496.

12' SLOOP - Fiberglass hull, ss & nylon rigging, takes 5 hp outboard, made in W Germany, 1 yr old, very good cond. \$650. Ext. 3765, 744-5079.

Miscellaneous

DRESSER - 5 drawer; tape deck for 5" reels; 1/2 hp elec motor. Rich, Ext. 4172.

2 KAPOK LIFE JACKETS - Child's med (to 90 lbs), excel cond. \$2 ea. 941-4328.

18,500 BTU AIR COND - Penncrest (Penney's) 1973, has auto rotating vent, used 2 mos. 363-8919, 363-6121 after 6.

BUREAU - Birdseye maple w/mirror, \$35; slacks & sports jackets, boy's, \$3, 4 & 5. Angela, 744-5871.

DINETTE SET - Round table, 2 chairs, brand new (2 mos old). Orig \$89, asking \$60. Pauline, leave message at Ext. 2238.

AR SPKR STANDS - Walnut, hardly used. \$10. Naomi, Ext. 3618, 744-1081.

MINI TRAIL BIKE - 1973 Gemini, 80cc, 4 spd, head & tail lights, all new gears & cables, excel cond. \$250. Rhodus, Ext. 3284, 924-3522.

DOBERMAN PINCHER PUPPIES - AKC, red male & female, good temperament. 281-8274.

RIDING LAWN MOWER - Sears, needs spring in ratchet starter. \$40 firm. 281-8274.

TV - GE 18" b/w portable, 2 yrs old, perf cond, deluxe features, switching to color. Orig \$125, asking \$79. Sue, Ext. 3675, 473-6570.

TENNIS RACKET - New Wilson Jack Kramer Autograph, strung w/best Vantage nylon, med, 4%. \$25. 744-5096 after 4.

BEDRM SET - 8 drawer dresser & dbl bed frame, blonde finish. Ext. 4172.

SIAMESE KITTENS - Seal Point & Blue Point. Fran, Ext. 4046.

STEREO RECORD PLAYER - Guitar, reasonable. A.C. Nunes, Ext. 3370, 286-3742.

32x80 SCREEN DOOR - W/windows, hinged left. \$15. Mike, Ext. 3198.

GOLDEN RETRIEVER - AKC, even tempered, trained, 7 mos old, reasonable. Ken, Ext. 2495.

8' PICKUP TRUCK CAMPER - Sleeps 5, stove, sink, space heater. Asking \$600. 286-1169 after 6.

GIRL'S BICYCLE - 20" Schwinn, 2 spd coaster brake, excel cond. \$35. Ernie, Ext. 4291.

MINI BIKE - Good cond, \$50-no less; helmet, \$7, orig \$25. E. Flores, Ext. 4719/4679.

USED STEREO AM/FM RADIO - \$35. Zaccai, Ext. 3370/3226.

ORLON YARN - All colors, will deliver to Lab or pick up at my home. \$2.50/lb. Ann, Ext. 3143, 732-9384 after 6.

2 CHILD'S TRICYCLES - Good cond, \$1.50 ea; child's crib matt, \$5. 289-1242.

POOL TABLE - 4'x8'. \$100. 924-8297 after 5.

ZENITH 27" CONSOLE TV - B/w, needs channel selector. \$70. 585-4038.

BABY ITEMS - Crib matt, car seat, infant seat; Aurora race track, figure 8, mounted on plywood. Ext. 3741.

RIDING BREECHES - Stretch, girl's size 16, excel cond; champagne glasses, set of 8, never used. Ext. 3741.

TRAILER - Single axle, flat bed 6'x8', excel cond. \$100. Ann, Ext. 3143, 289-3427 after 6.

BOOKS - Mostly paperback, many recent sci-fic, mystery, war, etc. 104. R. Williams, Ext. 4207, 286-0893.

CROWN TELEPHONE ANSWERING DEVICE - Sm reel-to-reel recorder, 2 cartridges, needs work. \$25. R. Williams, Ext. 4207, 286-0893.

POOL - 28'x20' deck, swim area 16x20, filter, ladder, cover, vacuum, outdoor carpet. \$350, you take it. Mike, Ext. 4641.

SAND FILTER - 3/4 hp, for pool, used twice & pool collapsed. \$135. Pat, Ext. 3727.

SPERTI FLOOR SUN LAMP - \$15. R. Williams, Ext. 4207, 286-0893.

20" SM GIRL'S SCHWINN BICYCLE - \$10; 26" 3 spd girl's Columbia, \$35. 286-8062 after 5.

DBL BED MATT & SPRINGS - \$10; 2 woven folding chairs, \$35; tape recorder, \$20; 2 bookcases, \$25; 2 rugs & other household items. Ext. 3393.

FENCE STAKES - 7-7' steel stakes, almost new. \$3 ea. Linda, Ext. 2896, 286-1201.

AIR COND - Rac window, brand new GE 14,000 BTU at wholesale cost. \$250. M. Smith, Ext. 4622.

EDISON CRIB - W/matt, dbl dropside, stabilizing bars, colonial maple, \$45; Biltrite coach w/matt, \$60; Perego carriage-stroller, \$40. 732-7607.

CAR-TOP LUGGAGE RACK - \$10. John, Ext. 3354.

DBL BED - Walnut headboard, metal frames, Serta matt & boxspring, very good cond. \$75. John, Ext. 3354.

3 GIRL'S BIKES - 1-20" w/training wheels, \$15; 1-24" good cond, \$15; 1-24" poor cond, \$5. 878-0071 after 6.

FOLDING HIGHCHAIR - Upholstered, w/safety strap, \$15; sturdy stroller on springs w/booster seat & all-weather hood, \$15; car bed, \$5. 475-2595.

JUVENILE FURN - Freshly painted chest & sm dresser w/brass colonial pulls, excel cond. \$35/both pieces. 475-2595.

GE PORTABLE 16" TV - 9 mos old, \$50; wood playpen, \$4; elec humidifier, brand new, \$7; iron, \$2. Aubert, Ext. 4815, Ext. 3104 after 6.

TAPE DECK - Sears stereo 8 track. \$40. Sam, Ext. 3254.

BOY'S 26" BIKE - 5 spd, excel cond, 1 yr old. \$45. 286-0037.

DRESSER - 64"x31"x19", 9 drawers, w/mirror. \$25. 928-0466 after 3.

9 REELS - 7", of recording tape, 1200 ft ea. \$1/reel. Ext. 4659.

GIRL'S BIKES - 1 banana seat, \$15; 1 regular, \$10. Ext. 3571.

COMMERCIAL REFRIGERATION UNIT - 3 doors, compressor, compl. \$275. 727-0920 after 6.

SOFA BED & CHAIR - Colonial, \$45; kitchen table, 4 chairs, \$15; elec guitar w/4 w amp, \$22. Aggus, Ext. 4742, 744-2688.

BUNK BED - Plywood construction w/matt. Bob, Ext. 2902, 286-0407.

TANDEM BICYCLE - \$50; poker table 2/6 folding chairs, \$60; lg trunk, \$20; 6-drawer dresser, 48x16x30 high, \$15; twin brass floor lamps, \$5. 281-5251.

LADIES CLOTHES - Size 14-16; white winter coat w/fur collar, \$15; theatre suits orig over \$100, \$15; all good cond. 281-5251.

BOY'S BIKE - Huffly 20", brand new, never used. 732-3895 after 3.

19" PORTABLE TV - \$15; 2 car stereo tape players, \$8 ea; hand winch for truck, \$10; Polaroid Swinger camera, \$6. Frank, Ext. 2022.

CANOPY - For 6' picnic table, tangerine & white, excel cond. \$18. 928-4532.

GE REFRIG - Avocado, 1 dr, 12 cu ft, top freezer, not frost free, 2 yrs old, excel cond. \$85. 928-4527.

DOOR - Sliding safety glass 4'10"x6'6", alum, all hardware, new. \$65. 928-4750.

CARRIER - For carrying up to 300 lbs of motorcycle on your back bumper. \$10. Hans, Ext. 4581.

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

BELLPORT - Contemporary, excel cond, 3 bedrms, 2 baths, study, fam rm, din-liv area/fireplace, window walls, lg sunny deck, lovely landscaping, apple trees; near golf, tennis, beaches, sailing. \$55,000. 286-0451.

PATCHOGUE VILLAGE - Attractive 2 1/2 story house with walking distance of shopping, library, schools, churches, synagogue; 5 bedrms, eat-in panelled kitchen, 28' liv rm-din rm, fam rm, fin bsmt, util rm. \$41,000. 289-3246.

OAKDALE - 3 bedrm ranch, garage, 2 baths, fin bsmt w/sep entrance, central air cond, dishwasher, extras. Low 30's. Ext. 2311, 589-5951.

3 BEDRM HOUSE - Bsmt, garage, util rm, 3/4 acre all landscaped. \$34,500. B. Bottari, 286-8197.

BROOKHAVEN - 2500 sq ft, 8 rms, 3-4 bedrm colonial, 2 baths, 20'x24' cedar planked, cathedral ceiling, fam rm w/fireplace, liv rm/fireplace, country kitchen, extras, assumable 7 1/2% mort. \$58,000. 286-0025.

For Rent

RENT BY THE WEEK - Mod bungalow on LI Sound at Jamesport, on beach, prime wks avail. \$175/wk. Marty, Ext. 4062, 727-0187.

STONY BROOK - 4 bedrm house near village, fam rm/fireplace, fin bsmt, furn & all appliances, 1 acre, avail 9/1/74 for 1 yr. Ext. 3790, 751-8158.

SUBLET-1 YR - North Isle Apt, Coram, 1 bedrm, 2nd floor, carpeting, air cond, recreation facilities free. \$235/mo. Ginny, 585-3896.

BELLPORT VILLAGE - Unfurn apt, 2 lg rms, bath, garage, upstairs, priv entrance, lease avail July 1. \$180/mo, util incl. 286-8850.

Wanted

CHILDSITTER 9/2-12/20 - Wading River mother of 2 children (1 & 4) seeks sitter w/special interest in children (hours 8am-5:45pm). 929-8307 after 6.

RIDE ON LAWNMOWER - Or garden tractor, 21" "Quality" push lawnmower. 878-0071.

HOME - For appreciative tiger cat. Zaccai, Ext. 3370/3226.

A PLACE TO LIVE JULY 1-AUG 21 - We are friendly people w/a 3 yr old daughter & will take good care. Kathy, Ext. 3524.

HOME - For adorable kittens, keep the mice away. Alice, Ext. 2456, 473-0178.

RENTAL - Unfurn 2-3 bedrm house, 1 yr lease, starting July 15-Aug 1. Barber, Ext. 3219/4513.

YOUR TRASH - May be someone else's treasure, collection being made for the Wading River School Assoc. Ken, Ext. 2495.

LG DOG HOUSE - Good cond, low price. Linda, Ext. 2896, 286-1201.

USED SHIPPING TRUNK - Zaccai, Ext. 3370/3226.

VERY SM PIANO - Upright or grand. Saxon, Ext. 3435.

ALUM MAST - For British made sailboat GP14. Pete, Ext. 3350.

SM POP-UP TRAVEL TRAILER - Must be able to be towed by VW. Iris, Ext. 4046.

STUDIO APT - Summer occupancy, Patchogue-Bayport area, priv entrance, unfurn, under \$125. Perri, Ext. 4046.

BBY'S RECLINING CAR SEAT - Pat. 475-3613.

Carpools

PAYING RIDER - Needs ride from Patchogue starting 6/10, 8:30-5. 289-7657.

JOIN OR START CARPOOL - Smithtown or Commack area. Ext. 3268.

WANT TO JOIN OR FORM CARPOOL - From Riverhead. Rochalle, Ext. 3438.

NEED 1 DRIVER - For carpool from Bayport/Blue Point area. Kathy, Ext. 4393.

ADDITIONAL DRIVERS WANTED - For carpool in Miller Place area. Ext. 3462.

Services

SINGER, GUITARIST - Will entertain for parties, etc., own PA system, children's or adult entertainment. Hali, 744-8765.

TUTORING - BA in elem education, working toward MA, licensed K-6, all subjects. Hali, 744-8765.

TENNIS CLASSES - Registration now open for summer instruction, class size 5, 8 wks, 10 hrs, Shoreham. \$40. 744-1906, 5-10.

DRIVEWAY SEALING - Black top, guard against cracking, raveling, soft spots, frost damage, protect now. Free estimates, no obligation. 281-5631.

TREE REMOVAL & CHAIN SAW WORK - Experienced, free estimates. Ken, 289-8212 evens.

CERAMIC TILE/CEMENT/TERRAZZO - Professional work at reasonable prices, call for estimates. John, Ext. 4143, 286-1348, 281-8848.

HOME TYPING - 289-6692.

KEYS - All kinds duplicated or by code, locks keyed alike, changed or repaired, combinations changed, hand or key. Charlie, Ext. 2957, 744-3312.

EXT & INT PAINTING - College students w/5 yrs experience, references, free estimates. 931-4328.

Classified Ad Policy

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

- The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.