BROOKHAVEN BULLETIN
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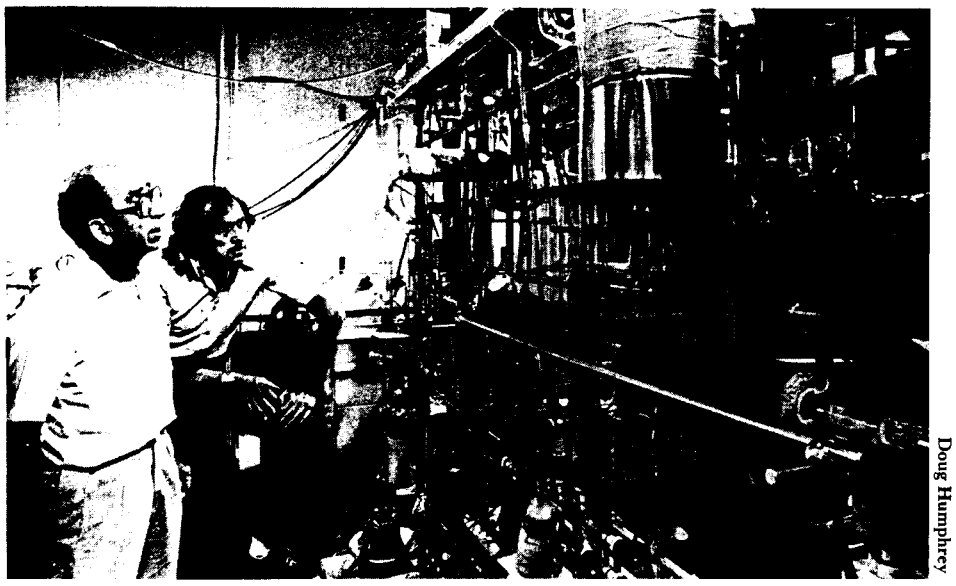
BROOKHAVEN NATIONAL LABORATORY



Doug Humphrey

Ray Stoenner, left, and Garman Harbottle with equipment used to purify CO_2 used in the counter.

New Dating Method Scores

About 120 years ago, the American explorer Charles F. Hall stumbled across an unusual find in the southern reaches of Baffin Island. Along the remote coast of Frobisher Bay, his party uncovered an oblong chunk of iron, weighing about 25 pounds. It was identified as a bloom – a raw, unworked mass of iron – and for safe keeping, given to the Smithsonian Institution. Although it was thought to be of Norse origin, no one was sure.

Years passed and the bloom sat, still mysterious, in the Smithsonian's archives. Conventional radiocarbon dating was impossible, because the carbon content – which comes from charcoal used in smelting – was only .05 percent, much too low to provide a datable sample.

Then in 1976, the Smithsonian's Jacqueline Olin informally mentioned the bloom to BNL chemists Garman Harbottle and Ray Stoenner. With Ed Sayre, they had been interested in low-level counting as an outgrowth of Chemistry's neutrino experiments, which demand ultra-low level counting of argon-37.

"We had been thinking for a long time," says Harbottle, "that some of the solar neutrino experiment technology could be applied to carbon-14 dating on a small scale, that is, using very tiny samples of carbon-14."

With funding Olin obtained from the Smithsonian, the BNL team began developing a small scale gas proportional counter, one that could date very small C-14 samples, or objects with very low carbon contents.

Extending Technology

Radiocarbon dating involves measuring the relative carbon-14 in (1) present-day organic matter and (2) the sample under investigation, and multiplying the logarithm of this ratio by the rate at which the C-14 decays. The new counters differ from older ones in that they use C-14 in the CO_2 form at higher pressures – four atmospheres – so the counter must be operated at higher voltage.

"This brought about problems usually associated with electronics at high voltages," says Stoenner, "Also, the CO_2 had to be pure, free from electronegative impurities, so the first year or so we devoted to working the bugs out of the electrical, and cleaning up the CO_2."

Early in 1978, the counters were first tested with known samples of sequoia redwood. Results came up remarkably close: samples dated by tree-ring to be between 31-37 B.C. yielded a radiocarbon date of 32 A.D. $\pm$190. The following year, the Chemistry team dated the Frobisher iron to be 1158$\pm$107 and 1271$\pm$133, which is interpreted as 12th Century. Olin said further studies, possibly field archeology, would be needed to corroborate the radiocarbon date.

Two Approaches

Simultaneous with work at BNL, researchers elsewhere devised radiocarbon dating methods using Van de Graaff accelerators. Both accelerators and small-scale counters can measure C-14 activity in samples hundreds of times smaller than conventional means, but the similarity ends there.

Small-scale counters require almost no labor once started up, although they take about 70 days to date a sample. "They work very slowly," Harbottle said, "but require little attention – they just sit there and click away."

A counter costs $515, plus $40,000 - $50,000 for accessory electronics and gas purification equipment, which Stoenner noted are usually stock items in radiocarbon labs.

Accelerators are labor and energy intensive, rank in the million dollar range and, like conventional radiocarbon methods, give same day results. Accelerators, moreover, can date even smaller carbon-14 samples. General Ionex, Inc. a Newburyport, Massachusetts firm, recently dated a 200 microgram sample, 50 times smaller than the small-scale counter minimum.

Doug Humphrey

Glassblower Karl Walther assembles a counter envelope, the business end of the small-scale carbon-14 counter. It is a series of tubes of optical grade fused silica, about a foot long.

Commercial Popularity

Harbottle and Stoenner are quick to point out they're not in the small-scale counter business, although the instruments have been in demand since an article on them appeared in *Science* a year ago. All counters, Stoenner said, are sold at cost.

The biggest buyer to date is Harwell, the English research institution which does radiocarbon dating for a fee, and has arranged to buy sixteen of the counters. "They reckon," says Harbottle, "they'll be able to turn out about 250 samples a year, since they'll have so many counters going at once."

—James Kent

Picnic P.S.

OUTING '80, the employee picnic on Saturday, August 23, will officially begin with a big parade. Instead of 76 trombones leading off, a Grand Marshal (identity secret until picnic day) will head the line. And in place of a hundred and ten cornets, there will be police cars, motorcycles, fire trucks, family camper rigs, and members of other BERA activity groups. Also marching along will be the Emerald Society Pipe Band of the Suffolk County Police Department and the Knights of the Purple Haze drill team. It's going to be such a grand parade, that anyone who feels like keeping in step is welcome to join in.

The parade will form at 1 p.m. at the intersection of Technology and Bell Streets and go down Brookhaven Avenue to the picnic area between Berkner Hall and the tennis courts. There, the pipe band and the drill team will give special performances.

If you have any questions, contact the picnic committee. Better yet, call them to volunteer your help with the picnic activities. Committee members are: Roseann Chiuchiolo, Ext. 3199; Charlie Flood, 4207; Josephine Gazzola, 2456; Blanche Laskee, 2873; Rosalie Piccioine, 3160; Marge Stoeckel, 2459; and Michael Zguris, 4728.

CREF Values

September	44.60	October	41.18
November	42.56	December	43.19
January	45.37	February	44.59
March	40.33	April	41.82
May	43.70		

June $44.81

Bus Program In Committee

Representatives of the Long Island Airports Limousine Service Corp. met with interested employees at Berkner Hall on Monday to discuss possible bus runs from the North and South Shores east to BNL.

After the company presentation and subsequent questions from potential riders, it was decided that a more specific plan was needed. To accomplish this, it was suggested by L.I. Limo reps that volunteers from BNL meet with them. Volunteering for the task force were Bill Webster and Susan Saccardi (Staff Services), Frank Thomsen (DEE), and John Tighe (Fiscal). When specific fares, pickup points and questions of fare collection have been resolved, this information will be published in the Bulletin prior to any subsequent meeting on the subject.

Bill Webster, manager of Staff Services, has pointed out that the Laboratory would not subsidize the bus program, but serve only to bring the company and BNL employees together.

Day Care Deadline

The enrollment deadline for a proposed day care center for children between ages two and five has been extended to Wednesday, July 30. Registration forms are available from the Personnel and Affirmative Action offices. Enrollment is not restricted to children of BNL employees. If you have any questions, contact Janet Whitehead, Renee Flack, Vickie McLane and or Gail Williams.

IBEW Wage Scales Ratified

On July 17, 1980, the members of IBEW Local 2230 ratified new wage rates effective October 1, 1979, and August 4, 1980, respectively.

Under the existing contract between the Laboratory and the Union, when new Presidential guidelines were announced that permitted increases in excess of one percent per year over those provided in the contract, the Union was authorized to renegotiate the contract rates.

In the negotiations, the Laboratory offered an additional 1 percent increase effective October 1, 1979 (for a total of 9 percent increase from the July 31, 1979 level), and an additional 2 percent increase effective August 4, 1980 (for a total increase of 8 percent). The Union did not agree, and informed the Atomic Energy Labor Management Relations Panel of the impasse. After a hearing in New York City on June 28, 1980, the AELMRP recommended a settlement which called for an additional 1½ percent wage increase effective October 1, 1979 (for a total of 9½ percent increase from the July 31, 1979 level), and effective August 4, 1980, an additional 2 percent wage increase (for a total increase of 8 percent).

This settlement was ratified by the IBEW Local 2230 membership.

Weekend Tour

This weekend, visitors to the Lab will learn how synthetic oil and gas can be made from coal. Scientists in the Flash Hydropyrolysis Group of DEE are hosting the mini tour. After an introductory talk, illustrated with slides, they will take visitors on a tour of their experimental area. On view will be a high pressure, high temperature coal-hydrogen reactor, where coal is fractured to produce liquid and gaseous hydrocarbons.

The complete tour of the Lab also includes a viewing of Brookhaven's "Quest," a guided bus tour of the site, and a visit to the Exhibit Center.

Nursery School Offers New Option

In its 16th year of operation, the on-site Upton Nursery School will offer a new option for parents who cannot participate in classroom sessions. For those parents, a qualified teacher's assistant will be provided on payment of a modest additional fee.

The nursery school is for children whose parent, or relative, is a BNL employee. Because parents cooperate in the running of the school, a high quality program with a reasonable tuition fee can be offered.

The teachers are professionals in early childhood education, and are assisted in each class by a parent or teacher's assistant. Children attend school two or three mornings a week. The classes provide a varied and stimulating program including art, music, outdoor activities and field trips.

At present some classes are full for the sessions beginning in September. If you are interested in enrolling your child, call Karen Brunschwig, 924-0030, Ruth Fernow, 928-8465, or Colin Stewart, 286-9616. Car pool information is also available from Karen Brunschwig,

Board members for 1980-81 are: Colin Stewart, president; Ruth and Rick Fernow, secretary; Sara Morse, treasurer; Karen Brunschwig, enrollment chairwoman.

Seminar Closed

The word processing Author's Seminar on Wednesday, July 30 in Building 318 is filled. Because more people signed up than could be accommodated, another seminar is scheduled for Wednesday, September 10. The seminars will focus on effective editing procedures to shorten turnaround time in updating a manuscript. Contact Jane Bennett at Ext. 3275 to sign up now for the seminar in September.

Arrivals & Departures

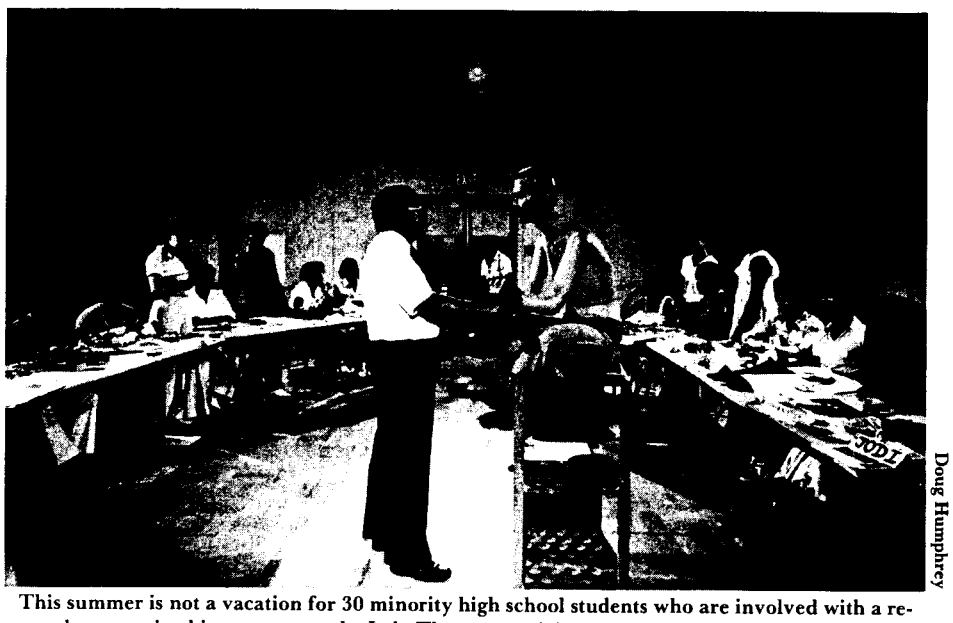
Arrivals

Michael A. Bergkamp	Chemistry
Martin Candito	Accelerator
Peter D. Chouinard	Central Shops
George T. Holohan	Accelerator
Richard J. Wilke	Nuclear Energy

Departures

Thomas V. Johnson	Plant Engrg.
Thomas C. McGee	Energy & Env.
Edwin F. Rappe	Physics
Martin M. Starke	Physics
James C. Wilson	Accelerator

Fledgling Scientists At Lab



Doug Humphrey

This summer is not a vacation for 30 minority high school students who are involved with a research apprenticeship program at the Lab. They are studying physics, biology, chemistry and engineering with three local high school teachers and doing special projects with BNL scientists. Arthur Pitschi, one of the teachers, included in his biology classes a discussion about ultraviolet light and skin cancer.

Building 184 has undergone several transformations during the course of the Lab's history, from a chapel to a theater. This summer it has been turned into a classroom for high school students.

Under DOE sponsorship, Brookhaven is hosting 30 high school students from Suffolk County in an intensive eight-week program. The first group of 15 students will be here the month of July and the second group will come in August.

The summer Apprenticeship Program for Minority High School Students is intended to foster an early interest in science, mathematics, and engineering careers among minority students. In today's highly technical society, the training and employment of youth in these areas is of high national priority, and various Federal agencies and departments in addition to DOE are conducting such programs.

The students will be entering 10th and 11th grades in the fall, and were chosen by their schools for this program on the basis of demonstrated ability or interest in science. Final selections were made by BNL staff.

Their days at BNL are full. Following a curriculum designed by Janet Hoefling, Program Coordinator, they spend time in class learning about basic scientific concepts, and they visit BNL facilities related to particular topics under discussion. They also take field trips off site to four other research labs, engineering firms and colleges.

Classroom instruction is done by three local high school teachers recruited for the program. But BNL staff members from various scientific departments volunteer their time and knowledge to help make concepts learned in the classroom come alive in the laboratory.

William Lynch, who teaches 12th grade Regents Physics at Patchogue-Medford High School during the school year, said, "In addition to all the fancy machines, Brookhaven has tremendous human resources." Lynch teaches the physics classes, and during the week they spent with him, the students visited various accelerator facilities on site, talked to scientists about their research, and even did an experiment with Albert Hanson at the 3 MV Van de Graaff.

Besides physics, the students also study biology, chemistry and engineering, with math incorporated into all areas. Biology and engineering is being taught by Arthur Pitschi of Patchogue-Medford High School, and Clayton Hudson, a teacher at Central Islip High School, is giving the chemistry classes.

For most of the students, this program gives them a way to test their interest in science. Paul Certo, a student at Central Islip Senior High School, had been thinking about a career in physics, and his experience here has made him even more enthusiastic. Shevon Ivey, Wyandanch Memorial High School, wants to explore all areas of science before choosing a major, and Lawrence McCullough, Bayport-Blue Point High School, is now thinking about switching from journalism to science. McCullough said, "It's such a vast field, that I think there will be good opportunities to get a job."

Some of the students were not too familiar with the Lab before getting involved with the program. Alethea Futch, Riverhead High School, was impressed by the people, equipment and campus-like atmosphere. Surprised at what BNL offers, Susan Quarterman, Sachem South High School, commented, "This is a really good program. It gives minority students a better chance."

All of the students agree on something that is probably fundamental to all scientists. They think science is fun.

Equipment Displays

The Lexitron Corporation will exhibit its latest word processing equipment on Tuesday, July 29 from 11 a.m. to 4 p.m. in Berkner Hall, Room C.

Representatives from the Lanier Shared Logic Word Processing System will be at BNL on August 1 to demonstrate the system and answer questions. The open house will be held in Room C, Berkner Hall from 10 a.m. to 4 p.m.

Anyone interested in some of the latest office technology is invited to attend.

Diners Note

The Cafeteria will be closed on Saturday, July 26. On that day, Snack Bar service will be available from 9:00 a.m. to 2:00 p.m. at the Brookhaven Center.

Cafeteria Menu

Week Ending August 1, 1980

Monday, July 28		
Tomato vegtable soup	(cup)	.45
	(bowl)	.55
Egg foo yong & 1 veg.		1.40
Spaghetti w/meatball & garlic bread		1.40
Hot Deli – Pastrami	(on bread)	1.45
	(on roll)	1.55
Tuesday, July 29		
French onion soup	(cup)	.40
	(bowl)	.50
Pork & cabbage crisp		1.45
Meatball & hash browns		1.45
Hot Deli – Corned beef	(on bread)	1.45
	(on roll)	1.55
Wednesday, July 30		
Pepper pot soup w/spaetzle	(cup)	.45
	(bowl)	.55
Seafood creole on rice		1.45
Southern fried chicken w/corn fritter		1.45
Hot Deli – Veal pattie & peppers hero	(on bread)	1.35
	(on roll)	1.45
Thursday, July 31		
Chicken gumbo soup	(cup)	.45
	(bowl)	.55
Roast fresh ham & 1 veg.		1.45
Cheese ravioli & 1 veg.		1.35
Hot Deli – Chili con carne	(on bread)	1.40
	(on roll)	1.50
Friday, August 1		
Manhattan clam chowder	(cup)	.45
	(bowl)	.55
Sweet & sour fish & 1 veg.		1.45
Ham, rice & greenbean casserole		1.40
Hot Deli – Sandwich steak, NY style	(on bread)	1.50
	(on roll)	1.60

Just Laws

This collection was compiled by Lomac, a California computer corporation.

Lowery's Law: If it jams, force it. If it breaks, it needed replacing anyway.

Anthony's Law of Force: Don't force it, get a larger hammer.

Cann's Axiom: When all else fails, read the instructions.

Sattinger's Law: It works better if you plug it in.

Ives' First Line of Defense: The computer did it.

Handy Guide to the Modern Sciences:

If it is green or it wiggles, it is **Biology.**

If it stinks, it is **Chemistry.**

If it doesn't work, it is **Physics.**

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, August 6. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare is **$3.25**, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than **Thursday,** July 31. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Friday preceding the scheduled trip.

S.C.C.C. On-Site Courses Announced

Suffolk County Community College will offer the following on-site courses for the Fall 1980 semester:

Course	Title	Cr	Day	Hours	Tuition Fee	Begin
AC12	Principles of Acctng. II	4	M/W	5:15-7:05	$112.00	9/8
BA11	Functions & Environment of Business	3	M	5:15-8:15	84.00	9/8
BA29	Supervision: Concepts and Practices	3	Tues.	5:15-8:15	84.00	9/9
DP11	Introduction to Computing	3	M/W&T/Th	5:15-7:05	84.00	9/4 & 9/8
EN16	Introduction to Engr. II	1	Tues.	5:15-7:15	28.00	9/9
EG13	Introduction to Literature	3	Thur.	5:15-8:15	84.00	9/4
MA42	Technical Mathematics II	4	T/Th	5:15-7:05	112.00	9/4
MA60	Elementary Functions	4	M/W	5:15-7:05	112.00	9/8
PC11	Intro to Psychology I	3	M	5:15-8:15	84.00	9/8
ST15	Public Speaking	3	W	5:15-8:15	84.00	9/10
TE14	Digital Electronics I	2	W	5:15-7:15	56.00	9/10

Minimum class enrollment is 15. Courses are in session for about 14 weeks.

Registration is Friday, August 22, from 12 noon to 3 p.m. in Berkner Hall, and counselors will be there to answer questions. Tuition is $28 a credit (no additional school fees are assessed) and Master Charge and Visa are accepted. Tuition refund forms are available from Personnel.

For more information, contact Renee Flack, Ext. 3316.

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Family Films

On Friday, August 1, an old time comedy film program will begin at 6 p.m. in Berkner Hall. Films presented will be "My Little Chickadee," starring W.C. Fields and Mae West (6 and 9:30 p.m.); "Duck Soup," starring the Marx Brothers (8:20 p.m.); and shorts with the Three Stooges, Shirley Temple, and the Little Rascals (7:30 p.m.). Starting Monday, tickets will be sold in advance for $2.50, from noon to 1 p.m. at the cafeteria. Admission is $3 at the door. The program is sponsored by the Brookhaven OXFAM Committee for Cambodian Famine Releif, and the ticket price is tax deductible.

Softball

League I

Ravens 10 – Six Pax 6

The Ravens trailed the Six Pax by 1 for four innings, then went ahead by one in the fifth to stay. The offense for the Ravens, Herbie Smith and Dennis Hall 3 for 4, Bob Brown 2 for 3, Leroy James scored twice and had two sacrifice flies. For the Six Pax, Jim Roesler was 3 for 4 and John Usher 2 for 3.

Deegenerates 6 – Phoubars 5

The Deegenerates were down by 2 runs in the bottom of the seventh with two outs and nobody on base. Then, in a stunning turn of events the Deegenerates scored three runs on two errors and two hits including a double by Tim Sills.

Blue Jays 14 – Source I 3

League II

Dirty Sox 9 – AMD 1
Moles 13 – Cardinals 7
Roga 10 – Titans 5

League III

Games of 7/9/80

Nuke Powers 22 – Ice Pops 16
Lights Out 9 – Binary Bombers 5

Lights Out defeated the Binary Bombers 9-5 to break their losing streak. A home run with two men on base was hit by Rich Green to tie the score 3-3 in the first inning. Ronny Kurz hit a home run in the third to bring Lights Out ahead 5-3. A strong defense and strong offense brought victory to the Lights Out team.

Big Sticks 12 – Brewmasters 2
Huff & Puff 9 – Medical 5

Games of 7/16/80

Big Sticks 8 – Medical 7
Huff & Puff 5 – Brewmasters 3
Lights Out 10 – Nuke Powers 4
Ice Pops 17 – Binary Bombers 7

League IV

E-Z Riders 11 – Random Sample 10
Survivors 15 – Diamonds 5
Balls & Strikes 13 – Turkeys 6
Nads 17 – Thrids 6

League V

No Feedback 5 – Underalls 4
Who's On First 21 – Mudville Sluggers 6
Source III 7 – Who Cares 5
TNT vs. No Names – game postponed

Call For Bowlers

You don't have to be a pro; in fact, it doesn't matter if you've never bowled before because all our leagues are run on a handicap basis. We realize it is early to think about bowling this fall, but bowlers are still needed to complete the various leagues. So don't delay. If you would like to bowl, even as a substitute, contact Helen Keeley, Ext. 4649, Betty Jellett, Ext. 3631 or Charlie Bohenblusch on Ext. 4758.

Children's Program

Pool Special

Last Friday afternoon amid cheers and jeers from the sidelines, a group of happy and excited youngsters emerged from the pool as victors of the kickboard races. The first, second and third place winners in three age categories were as follows: 4-6 years – Cathleen Holden, Alex Crabb, Kelly McFadden; 7-9 years – Karen Mills, Alyse Holden, Christy Rohrig; 10 years and older – Doug Willen, Susannah Kay, Maurissa Holden.

Coming Events:

This Friday – diving contest and balloon races
Next Friday – relay races

On-Site Program

Treasure Island was alive again with pirates last Friday morning when the children of the apartment area searched for hidden goodies with the help of maps and cryptic clues provided by the pirate counselors. Undaunted by menacing obstacles. the searchers were clever enough to seek every nook and cranny and come up with all the treasures that the ghost of Captain Kidd had stashed away.

Coming Events:

This Friday – talent show
Next Friday – scavenger hunt

Tennis Instructions

Boys and girls ages 7-16 are reminded that there are free tennis lessons being given on the courts Monday through Thursday from three to four o'clock.

Tennis instructor John Ingoglia is planning a tennis tournament to begin on Monday, August 4. Look for information signs posted in the pool and gym.

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, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex, age or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific 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, as indicated below. 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 Personnel Placement Supervisor, Ext. 2882.

LABORATORY RECRUITMENT: Opportunity, for present Laboratory employees.

1414. SECRETARIAL POSITION - Requires AAS degree in secretarial science or equivalent experience performing diverse secretarial duties including technical typing. Capability to learn to process scientific papers utilizing word processing equipment is essential. Will provide general assistance to primary secretary in central administrative office. Responsibilities will include typing of scientific reports, expediting travel reservations, and processing general correspondnce and reports. Biology Department.

1415. HEAVY EQUIPMENT MECHANIC OPERATOR - Group leader (2 positions). Plant Engineering Division.

OPEN RECRUITMENT: Opportunity for present Laboratory employees and outside applicants.

1416. DIETARY SERVICES ASSISTANT - Requires successful completion of training program in commercial cooking/baking procedures or equivalent experience with commercial food planning, preparation and service. Ability to work shifts, including weekends, is essential. Will assist with functions associated with preparation and handling of food for patients in the hospital. Medical Department.

1417. SYSTEMS/DP ANALYST (4 positions) - Requires a bachelor's degree or its equivalent plus several years experience in system design and application programming utilizing data base techniques. Will be responsible for designing on-line business applications utilizing ANSI COBOL. Administrative Systems and Data Processing Division.

1418. DEVELOPMENT ENGINEER - Requires BS degree in mining, metallurgical, or chemical engineering. Should have strong background in processing enginering and experience in minerals preparation and processing, fluidized bed coal combustion systems, sulfur removal processes and equipment for combustion systems, engineering design methods, and industrial process systems. Departmentof Energy and Environment.

1419. TECHNICAL POSITION - Requires AAS or equivalent in Chemistry. Some experience in analytical chemistry is desirable. Will work with staff in analyzing a variety of samples. Department of Energy and Environment.

1420. TECHNICAL POSITION - Requires AAS degree or equivalent in electronic technology. Should have several years experience in the development, construction and testing of research models of high resolution multiwire proportional chambers and associated analog and digital electronics. Should be familiar with high voltage systems, electronic research test equipment, vacuum and high purity gas technology, precision mechanical technology and machine tools, adhesives and property of materials. Good communication skills important. Instrumentation Division.

1421. CHEMISTRY ASSOCIATE - Ph.D. or equivalent in Chemistry. Staff position in gas-solid reactions. Involves cleanup of sulfur gases on sorbents and applications of coal chemistry. Department of Energy and Environment.

Autos & Auto Supplies

75 FORD -Granada, 2 dr sedan, landau roof, 302 V8, loaded, excel cond. $2,500. 286-1024.

110 VOLT - Engine mount generator, $50. Hank, Ext. 3848 or 472-0553.

AUTO A/C - add on unit, used, complete compressor evaporator cooler, hoses, hardware. $150. Bob, Ext. 4547 or 473-3987.

76 PINTO WAGON - 6 cyl, a/t, a/c, 44,000 mi, not rusted. $2200. Kevin, Ext. 4901 or 924-7283.

69 FORD - Fairlane, 4 dr, sedan, a/t, p/s, p/b, 302 V8, am radio, new battery, running. $200. 736-2534 after 6 pm.

68 BSA VICTOR CLASSIC - 441 good cond, $600. Murdock, Ext. 4731.

HONDA MOTORCYCLE CT90 - 4 spd, auto, road/trail, 2600 mi, licensed, inspected, must sell. Ext. 4058 or 286-0436.

71 ARISTOCRAT - trailer, gas/elec, refrig, counter stove, oven, shower, 18½', execel cond. $2100. Walter, Ext. 3352.

67 PONTIAC - Catalina, rusty, reliable, cheap, Ext. 3053 or 286-0612.

69 JEEP WAGON - 4 whl drive, V8, a/t, $800. 286-0225.

TAPE DECK - 8 track Motorola, hardly used. $30. 584-7050.

78 SUZUKI - 750 cc, double front disc brakes, mint cond., 3,000 mi. 475-2058.

55 OLDS - good for restoration or parts (new), reasonable. 698-4753, after 6.

75 BUICK - Station wagon, excel cond, best offer. Ext. 4881.

78 HONDA EXPRESS - 30 miles per hour model, excel cond. Has only 600 miles. $350. extras Doris, Ext. 3488 or 924-7832 after 5.

MAG RIMS - (4) 15", 5 lugs, 1 new tire. $60. takes all. Ext. 3284 or 924-6172 after 5:30 pm.

74 NEWPORT CHRYSLER - $500; (2) VW rims 15", 5 hole. $7. 727-5912.

76 JEEP - Wagoneer, low mileage, excel cond, $4,800; 71 Trailer, fan, sleeps 6, compl equipped. $3,800. 472-1168.

SNOW TIRES - A78-13, excel cond, mounted, Pinto, Vega, etc. Jim, Ext. 3501 or 928-6491.

69 MUSTANG - good drive train, $300. 587-1808 after 5 pm.

OIL - 10W50 Castrol GTX, 24 quarts. $20. Ext. 7666 or 724-3826 eves.

BNL's Volunteer Guides

Throughout the year, the Lab is visited by many different scientific and professional groups. BNL Tour Guides volunteer their time to escort visitors around the Lab site. A special luncheon was held in their honor on June 24. Gathered for a picture were, standing, from left: Elinor Adams, Betty Pergan, Evelyn Ritter, Vincent LoDestro, Fanny Wyche, Irene Ozols Vincent Littieri, Marion Newton, Mariette Gray, Richard Seebeck, Janice Lamb, Janet Sillas, Beth Salata, Don David, Carol McFadden, Madeline Kinney, Joan Perullo, Marge Stoeckel, David Comstock, and Elaine Rowland. Seated in the front row are Marie Brenner, Gail Waite, Madeline Windsor, Douglas Hof, Janet Tempel, Robin Maragioglio, and Melody Howard.

Auto & Auto Supplies (Cont'd)

TIRE - Goodyear ER78-14 steelbelted radial whitewall, used 500 miles. $45. 360-0166.

79 TOYOTA - excel cond, 11,000 mi., am/fm stereo cassette, blue, very good mpg. Asking $4,550. Ricky, Ext. 4113 or 585-3744.

TRAVEL TRAILER - 17', fully self contained, like new, must see. $2195. Sheldon, Ext. 3354.

COX CAMPER - 1973 mint cond, stove, heater, sink, water, power cord. $1200. 265-7144.

67 BUICK WILDCAT - all power, a/c, new tires, good mpg, excel cond, 98,000 mi. Must sell $675. or best offer. Theresa, Ext. 2913.

15" WHEELS - Toronado, front wheel drive, very good cond. $10./pr. Bob, Ext. 2819 or 289-0357.

CHROME MAG RIMS - 5 lug, fits jeep w/1100 Dune Diggers mounted. $100. for all. 289-1705

71 DUSTER - std trans, slant six engine, economical, reliable, very good cond. snows. Ext. 7679.

76 MAVERICK - a/c, a/t, good cond, clean, excel running cond. $2,600. JU 8-1713.

AUTO RADIO - new audiovox in-dash am/fm. George, Ext. 3783.

71 VW SQUAREBACK - 4 spd, am/fm, new muffler, battery, 28/33 + mpg, $750. J. Adams, Ext. 4994.

75 GRANADA - a/c, p/b, p/s, a/t, good cond. $1950. Harris, 475-8504.

76 POP-UP CAMPER - (Gettysburg by "Coleman") sink/stove/cooler/table/sleeps 6, excel cond. $1400. 289-1085.

75 DATSUN - 710, 4 dr. sedan, 4 spd, am/fm, low mi., excel cond. $2,500. Stan, Ext. 3284 or 286-1062.

77 THUNDERBIRD - 31,000 miles, firm, one owner. 722-3164 or 727-3677.

77 VOLKSWAGON RABBIT - 4 spd, fuel injection, new clutch; alternator; battery; and muffler, am/fm cassette, reg. gas, good cond, must sell $4,000. Jory, 345-4324 or 724-0470.

CAMPER - Pop-up trailer, 1975 Viking, sleeps 6, gas range, gas heater, ice box, $1450. Bob, 727-0139 after 6 p.m.

74 CAMERO - V8, 4 spd, clean. Hank, Ext. 3848 or 472-0553.

77 FORD PINTO - 4 cyl, auto, p/s, very nice cond, 37,000 miles. $1950. Ext. 2377 or 281-2382.

MECHANICS SPECIAL - 1972 M.G. Midget, best offer. Joe, Ext. 4547 or 399-1561.

76 HONDA CIVIC - excel cond. $3,500. or best offer. Ext. 4881.

SNOW TIRES - Goodyear flexten w/GM rims (2) GR 78-14's. $140. Roy, Ext. 4664 or 473-5890.

72 DATSUN - 1200, needs some work, good commute car. $300. Marion, Ext. 3908 or 289-0342.

71 VW - engine excel, body needs minor work. $900. Firm. Ext. 7584.

78 SUZUKI - GS1000E Windjammer, sissy bar, stereo. $3,000. Call 399-4414 or see Steve, Shirley King Kullen.

70 DODGE - pickup, 6' bed, auto, 318 eng, rebuilt, spoke wheels, new brakes, fog lights, cover on bed. 289-5291.

70 HONDA - 750K, new chain and battery, custom scat, sissybar, oil cooler, chrome features. $1,000. Ext. 2012 or 928-7621.

72 CHEVY - Sta. wgn, p/s, p/b, good cond, new brakes; battery; tires (2). $550. Len, Ext. 4487.

72 PONTIAC - Sta. wgn, excel running cond, body fair, best offer. 757-5599 or Ext. 3448.

68 TORINO - 4 spd, good engine, body damage. $200. 286-8053.

69 CHEVY - Suburban body parts, Hurst 3 spd. floor shift fits Chev. John, Ext. 4976 or 744-4386.

PARTS - 1970 Dodge Dart, 6 cyl, auto, 4 dr. Ext. 4514 or 289-8212.

79 CHEVETTE - a/t, a/c, am/fm stereo cassette, rear defroster, custom int, 14,000 miles, 25-30 mpg, must sell, best offer over $4,400. Gail 878-4664.

TRAVEL TRAILER - 1975 Prowler 23' dble dinette, rear bath awning, ducted heat, extras, excel cond. $3,750. 475-1647.

SNOW TIRES - F78-14 (Toyota truck) used 2 seasons, excel cond. $40./pr. Laine, Ext. 2318.

69 CHEVY - Impala, p/s, p/b, V8, good tires, runs well. $200. Bill, Ext. 3996 or 286-1136.

Boats & Marine Supplies

1970 EVINRUDE - 40 HP w/controls. Ext. 2423 or Ext. 4970.

1960 LYMAN - 17' runabout full canvas, 50 HP Evinrude, excel cond. many extras. $1,000. Ext. 2005 or 878-8847.

TYLERCRAFT - 24' cruising sailboat, new engine, 2' draft, excel. $5,100. Ext. 4638.

LONESTAR RUNABOUT - 16', fiberglass, foam floatation w/double bottom, excel cond. $500. Jim, Ext. 4502.

13½' GLASPAR - fiberglass motor boat, 40 HP Evinrude, new Hi-line trailer, extras. Fallon, $1,100. Northport 261-2719.

BOAT TRAILER - galvanized, good cond. $100. Louise, 325-8158.

16' BELLBOY - fiberglass, 80 HP Evinrude, extras, teenee tilt-bed trailer, $1,200. Firm. 584-6729.

BUOY - fiberglass 41"h x 13"dia. 23" base, 36" draft, $20; depthfinder, anolog readout 0-120'. $40. 744-5867.

CLAM RAKES - 20" x 2" teeth, 20" x2½", 16" x 3" teeth, anchor 20 lb. w/line. $20. each item. 475-4394.

SUNFISH - excel cond. $550. 475-9294 weekdays.

19' THUNDERBIRD - fiberglass trihull, 90 HP Evinrude, Cuddy, Camper top, extras. $2,200. Lloyd, Ext. 3381 or 286-1024.

SAILFISH - ready to go. $200. mushroom anchor. Sue, 286-0407.

Yard Sales

YARD SALE - July 26 and 27th, 5 families, 6 Miller Court, Miller Place, near Pond. Small appliances, household, marble slabs, games, toys, much more.

YARD SALE - July 25 thru 27th, Multi family, Raindates August 1st thru 3rd. North Titmus Dr. off Moriches-Yaphank Rd. new and used items.

MOVING SALE - sofabed, easy chair, bdrm set, coffee table, dinette set and more. Ext. 4367 or 698-3347.

Miscellaneous

KEROSENE HEATER - Aladdin, $100; Waterbed, $250; Michelin 175/70 SR13, $10; Lousa hiking boots, size 10, $50; table saw, ½ HP, 8" blade w/stand, $75. Ext. 3535.

AIR COND - 20,000 BTU Fedders, $100; Welbilt A/C, 6000 BTU, $50. Bill, 286-8554.

PICNIC TABLE - 8' Redwood w/8" redwood bench, custom made, excel cond. $50. Ext. 4701/271-2877.

COLEMAN FUEL - white gas for camping appliances. $3. per gallon. Ron, Ext. 3887.

COMPOST SHREDDER - grinder, Mighty Mac, heavy duty, 5 HP engine, 3 yrs., rarely used, excel cond, $240. Marion, Ext. 7214 or 2562.

INDIAN HEAD PENNIES - rolls of 50, various dates. $20. per roll. Les, Ext. 4074.

FURNITURE - for baby & child; stair gate, doggie clothes rack, crib mattress, books, toys. Marian, Ext. 3552.

FREE - dog house, for medium size dog, you pick-up. 929-4886 after 5 pm.

CAMERA - Konica, auto-reflex, half frame option, 52 mm lens, Vivitar auto 2X tele-converter, $100. Dan, Ext. 3006.

MARIGOLD PLANTS - mixed colors, $1.10/doz. Deliver every Tues. Bill Stars, Ext. 4278/298-9648 eves.

CONVECTION OVENS - (2) 36" deck, no reasonable offer refused. Immediate. 821-1395.

KITCHEN TABLE - w/leaf, $18; 2 piece sofa w/covers, $50; in-ground pool ladder, $40. 744-9822.

TV - 19" Emerson B/W, good cond. $20. Al, Ext. 3274.

LIMITED EDITION PLATE - 1979 LaScala Grand Opera Collection (ivory alabaster) w/certificate of authenticity, $45. Pat, Ext. 2452.

POOL - 16x32, filter, cover, ladder, 3 yrs. old. $250. 978-6816.

REFRIG - Amana, Harvest gold, excel cond. $250. 878-9518.

BABY STROLLER - $5; Movie camera, 8 mm, 3 lens, 4 spd, $15; Polaroid square shooter 2 w/case, $6. 475-7067.

CANNING JARS - (glass top) quarts. Ext. 2907.

1979 MINIBIKE FRAME - w/wheels, less motor, $100. Doug, 878-8707.

WHEELS - (2) 14" chrome slotted w/chrome lug nuts, excel cond. $50. Bob, 289-0413.

MEN'S BIKE - 10 speed, good cond. Andy, 286-8698.

OLYMPUS FLASH - auto 310, perf. cond, for any Olympus camera w/instructions. $80. Louise, Ext. 3617.

STOVE - airtight Gibraltar #3, almost new, w/glass front. Cost $500, now $350 cash & carry. 588-0805.

FREE - mixed puppies, 6 wks, available immed. 928-5208 after 5 pm or weekends.

SCUBA OUTFIT - comulete, all or parts; also Sears timing light. $20. Ext. 2437 or 924-7909.

CRIB - w/mattress, $15; hand push lawnmower, $8; 2 man saw, $10; Hay sythe, $10. 727-1617.

CROCHETED HOLIDAY WREATHS - Large, $1.50; small, .75¢. Ext. 2384 Alison or 475-7263.

2 METER FM - Yaesu, FT-227R, 4 meg Synth, 10 watt, $275; Standard SRC 146, HT, 6 ch. $100. Alan, Ext. 2928 or 821-0761.

WOODSTOVE - homemade, makes 50-100 gal. hot-water daily, very heavy duty constr., 30" round, 38" hi, $250. neg. 281-4871.

TENNIS SNEAKERS - Adidas finalist, size 10½, worn once, $15. Ext. 2041.

AIR COND - GE, 10,000 BTU, works well, $75. A. Muller, 878-0357.

BAND EQUIPMENT - intheater speaker cabs, $150. ea; University horns, $150. pr. "Sure' 'Master Amp, $100. 744-8680.

AIR COND - 5,000 BTU, good cond, 115 V, 7.5 amp, $50. Rich, Ext. 3573.

FREEZER - large upright, good cond. $100. or best offer. Ext. 3766 or 689-9392.

TABLE - Colonial style w/4 captains chairs, a good value, $50. Ext. 4755 or 286-9256.

SPINET PIANO - (Wurlitzer) antique-white, very good cond. $800. Ext. 3701 or 751-8128. eves.

SHEET MUSIC - piano (beginner, intermediate) clarinet; others. Very cheap. Stephanie, Ext. 3869 or 325-0389 after 6.

TV - RCA 25" Color Console, just reconditioned, $175. Chris, 924-3183 before 3 pm.

REFRIG - Kelvinator 17 cu. ft., reasonable, good working order. 363- 7032.

HEATHKIT SW - Receiver, $15; pool 8'x20", $15; picnic set, $10; rubber dinghy, $15. 929-4068.

KITTENS - (2) males, for adoption, trained. Ext. 3855 or 689-9718.

WOODSTOVE - Lange Model 6303A, used one season, perfect cond. $450. 286-1046.

HYBRID POPLAR TREES - will produce 8 cords of wood per year per acre. For info. Ext. 4660 or 924-3293.

PARAKEETS - young ready to tame, all colors, $12. ea; Guinea pigs, Peruvian, breeding pair, sow expecting. $30. pr young. $12. 265-1072.

CANNING LIDS - standard mason type, 3 doz. for $1. Ext. 4660 or 924-3293.

PILLOWS - heart shaped, 14" or 16" square, quilted, reasonable. Sharon, 878-2591 days or eves.

ALUMINUM - sliding door complete w/screens and frame. $50. Ext. 2624.

POOL LADDER - s/s tube type w/white steps, for in and above ground pools, $40; floating lounge, $10. Jim, Ext. 4040 or289-0876.

LEATHER BOOTS - brown, low-healed, beautiful, size 8½ M. $40. Ext. 7742.

CRIB - w/mattress, $15. 744-9498 after 6.

POOL - 24' round, 3 yrs old w/filter, ladder & all equip. incl. $450. Lou, Ext. 2034 or 928-7042.

WOOD SCREENS - (2) 28"x43", $5. ea; child's school desk, $25. Bill, Ext. 3355 or 472-4684 after 6 pm.

SOFA - 3 piece sleeper sofa w/matching end tables & lamps. Ext. 4041.

WOOD - full cord 8'x4'x4', cut small to fit stove, pine and hardwoods. $150. Chris, Ext. 4612 or 281-7379.

REALISTIC STEREO - 8 track record & play deck #TR-883. $95. John Zahra, 727-4515.

ROCKING CHAIR - comfortable, $10; small dog house, FREE; bean bag chair, $4; W. Keith, Ext. 2825 or 286-2739.

HI RISER BED - like new, cost $180; sell for $100. Jeanne, Ext. 2634 or 286-1290 eves.

CHANDELIERS - beautiful, 2 small, 1 large. Black candelabra & 1 spanish decor. 277-4091.

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 VILLAGE - 5 yr. old, 3 bdrm ranch, lg. eik, att. gar., patio, stockade fenced rear yard. $36,000. 286-0795.

BELLPORT VILLAGE - 3 bdrm high ranch, L/R, F/R, den, large eik, deck, 1½ baths, $42,000. 286-8166 after 5 p.m. and weekends.

BELLPORT SOUTH - Colonial ranch, L/R, D/R, vaulted 15' ceiling, F/R w/built-in birch bookcases & sliding doors to 30' astro-turf patio, 3 bdrms, new eik, 2 car att. gar, excel opportunity - $400./mo. total carrying cost. $34,000; assumable 8¼% Mtg. ($75. Transfer cost) $52,500. 286-3732.

SOUTH SETAUKET - 3 bdrm ranch, 100' x 120', landscaped, 3 village S.D., low taxes, assumable mtg., high 30's. Ext. 2435 or 928-4517.

CATSKILLS - land, 7 acres. $9,000. Hard road. Old mill site with dam. Electric and telephone available. 929-3531.

MASTIC BEACH - 3 bdrm ranch, corner lot, roofed patio, pleasant location near water. Low 30's. 281-7531.

BROOKHAVEN HAMLET - 3 bdrm custom ranch on ½ acre, a/c, w/w, landscaped. $49,000. 286-9454.

ISLIP - immac. cedar ranch, country setting along stream, ½ + acre, 3 bdrm, 2 baths D/R, L/R, eik, full bsmt/glass doors, OHW heat, re-insul attic, w/w, a/c, w/d, possible M/D. $49,500. 666-5367.

MANORVILLE - 3 bdrm ranch, 1 acre, 32' country kit, cathedral ceiling, 1½ baths, appl, bsmt, gar, assumable mtg. at negotiable rate. $43,000. Pete, Ext. 3868/4574 or 878-1225.

CENTRAL ISLIP NORTH - 1acre, hi-ranch, 8 rms, 1½ baths, 24x28 sunken patio, possible M/D, many extras. Yani, Ext. 2514 or 234-8564.

DELAWARE - 1 + acre on Route 300 about 5 miles west of Smyrna. Level, high and dry. 516-325-1961.

MEDFORD - 2 story Levitt, well insulated, 2-zone oil/hot water, 4 bdrm, 2½ bath, rec room, oversized 2 car garage, ⅓ + acre. $41,000. Marion, Ext. 4407 or Rae, Ext. 3347. Eves. 289-0342.

CATSKILL - Land. 7 acres. $9,000. Hard road. Old mill site with dam. Electric & telephone available. 929-3531.

For Rent

YAPHANK - Germon Gardens, sm., 3 rm bungalow, ideal for single. $190/mo. 924-3946.

VERMONT CHALET - furn, stone fp, swimming, fishing, canoeing, pond, lake, woodland trails, nearby Bromeloy slide, antiqueing, music festivals, theatre, hiking, wkly rate. Ext. 3448 or 757-5599.

ROCKY POINT - 5½ rm apt, 3 bdrms, full bath, w/w carpeting,fenced yard, NO PETS. $450/mo. includes all util. Available immed. Security required. 821-1487 or 744-3406.

WADING RIVER - spectacular water front, stone fp, casement windows, sleeping loft, dishwasher, washer and dryer, furnished. Sept. 2 to June 20. $325/mo. Ext. 2440 or 929-8165.

MANORVILLE - beautiful spacious duplex 3½ rm garden apt, one bdrm, central a/c, fp, lots of cabinets & closet space, porch & priv. ent. 5 min. from Lab. $325 month all util. 878-8112 or 878-8110 after 5.

CORAM - 2 bdrm apt. to sublet, 7 mi. from Lab, avail. August 1, swimming, tennis, a/c. Ext. 4367 or 698-3347.

BROOKHAVEN - 6 rm ranch, full bsmt, dbl garage, washer & dryer, on wooded acre, close to schools, churches, library. Furn/unfurn. 11 mos. beginning Sept. 1st. 286-1262.

STONY BROOK - studio apt, unfurn, priv. ent, parking space, 1 yr lease & security dep. required, single occupancy only, available in August. $275/mo. util incl. 751-3889 or 345-4044.

YAPHANK - 3 bdrm apt. in 2 family home, 10 min. to BNL, walk to lake. $395/mo. includes heat. 924-4447.

BAYPORT - 1 bdrm apt. to sublet. $285/mo. Bayport Terrace Apt. Ext. 4905 or 363-2732.

WADING RIVER - 3 bdrm house, garage, washing machine, near beach. $360/mo. plus util. Jim Black, Ext. 3798 or 929-8462.

Wanted

ROOMATE - to share expenses, own bdrm & bath, 15 min. from Lab. Joan, Ext. 7981 or 286-0742 after 5:30 p.m. (Fe/male).

HOUSE - 3 or more bdrms w/bsmt in So. Huntington, Melville area. Bill, Ext. 7688.

MODERN DINETTE SET - reasonable please. 369-2783 after 6 p.m.

BICYCLE - girls 16", in good cond. only. Maria, 924-3756 before 5.

BARBELL SET - must be reasonable for beginner. Sheldon, Ext. 3354.

HOUSEMATE - share large house in Coram. $155/mo. plus share util. 928-8379.

MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.

SMALL FREEZER - upright, approx. 10 cu. ft., good cond. Ext. 3397.

RIDGE - to SUNY Binghampton on August 29th, must have room for two trunks, misc. Joe, Ext. 7720 or 765-5373.

UPRIGHT PIANO - Baldwin, Yamaha or Steinway in good cond. Ext. 3701 or 751-8128.

HOUSE - M/D, 3 bdrm main house, apt. attached or separate. 286-8166 after 5 p.m. & weekends.

MENS BICYCLE - or Women's racer or 10 spd. 281-9504.

APARTMENT - 1 bdrm in Miller Pl. area for occupancy Sept. 1st (low cost) Jim, Ext. 3561.

CHINESE CHOW - female, to mate with AKC, 1 yr. old Male cinnamon Chow. 878-0480 eves.

WINEMAKERS UNITE! - prepare for 1980 vintage. Grape purchase, for info call Tom, Ext. 4674 or 286-2505.

GAS ENGINE - 3 to 5 HP from reel type lawn mower in good running cond. Ext. 4033.

HOUSE - to rent, 3 bdrms within 15 min. of Lab. beginning Sept. 3. Ext. 4385 or 744-6216.

Car Pools

VANPOOL - from Miller Pl., Sound Beach, Rocky Pt. to BNL. Don, Ext. 3284.

SYOSSET - LIE Exit 44 to join or start car pool. Mark, Ext. 3258.

PATCHOGUE - from Patchogue via E. Patchogue-Bellport, on-time, have opening for paying rider. Alyce, Ext. 2902.

BELLPORT - anyone interested in joining existing 3 man car pool? George, Ext. 7654.

HOLBROOK - Woodgate, New England, Birchwood Developments. Dino, Ext. 2485.

LIE EXIT 54 - driver needed for 8:30 to 5:00 car pool. Peter, Ext. 3695.

HUNTINGTON/S. HUNTINGTON - or surrounding area. Start or join car pool. 8:30-5:00. Possibly meet at park & ride on LIE. Gerry 4460/4471.

Lost & Found

LOST - Tennis racket, Donnay, near court 4 on Sunday, July 20. Jim, Ext. 4157 or 4142.

Services

AUTO REFINISHING - all areas of body work performed, small car discounts. Bob, Ext. 2546 or 744-4047.

KAYAK LESSONS - dates open July & August, basic to advance, all equipment supplied, private pond in Mastic. Ernie, Ext. 2957 or 281-7873.

PET SITTER - will watch dogs, cats, fish, snakes, etc. while you're on vacation. Laurie, 929-4522.

KNIVES SHARPENED - on flat stone, a razor edge. $5. per knife. Dave, Ext. 4755.

TV REPAIR -B&W, color, carry in service, reasonable rates. Ken Asselta, Ext. 4580 or Terry Wesley, 981-0464.

TUTORING - reading, writing, literature. Doctoral candidate in English. College instructor. Michelle, 928-8171.

TV REPAIR - call at lunchtime. Frank, Ext. 4798.

PICK UP TRUCK - for hire. Ken, 924-3756.

ASPHALT PAVING - and sealing. Bob, 475-4382.

BATON TWIRLING - $3.00 per lesson. First lesson FREE. E.S.T.A. Certified instructor. Marie Natoli, 286-2430.

TYPING - reports, manuscripts. Ext. 7223.

PIANO TUNING - and repair, reasonable rates and conscientious service. 751-4985.

HEMS AND ALTERATIONS - Sharon, 878-2591 days or eves.

HARBOR FANTASIES - lessons and rentals; hobie cats, waterskiing, sunfish, windsurfers and fishing boats. Ext. 7199.

TIRES - new and used, repairs and service. lunchtime, Fred Usack, Ext. 4798.

Ads left out of this issue due to lack of space need not be re-submitted to appear in next week's issue. Please note that ads may not be more than 15 words long and must be received in the Bulletin office by 4:30 p.m. Friday, for inclusion in the following week's Bulletin.