BROOKHAVEN BULLETIN

Vol. 35 - No. 24 June 19, 1981

BROOKHAVEN NATIONAL LABORATORY

Nassau County Water Studied

BNL virologists are embarking on a project with Nassau County to find out how effective the viral removal is at the new Cedar Creek Wastewater Treatment Facility in Wantagh.

James Vaughn, DEE, who will be principal investigator for the $300,000 project, says it shows foresight on the part of Nassau County. "Nassau and Suffolk counties are far ahead in appreciating the dangers of groundwater pollution," he said, "particularly in an area where groundwater serves as the sole source of potable water."

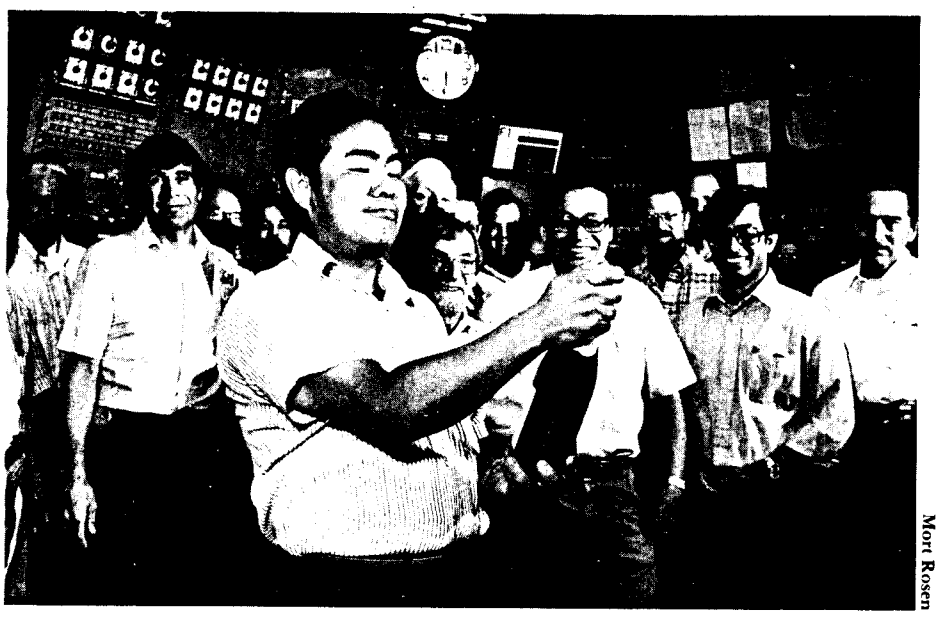
The investigation will proceed much like others conducted by BNL in the past, and will last for three years. Field work will involve the collection of large volume water samples (100-250 gal.), followed by virus concentration and tissue culture assay.

The virology team of three will collect three to five samples per week. If viruses are found, the likelihood that they will be entrained in groundwater for significant distances will be investigated. Vaughn expects to have some data compiled after the first year.

The Cedar Creek advanced wastewater treatment plant is capable of treating 5.5 million gallons of water per day, with 4.5 million gallons of effluent per day being recharged. Deep well injection and basin recharge systems will be used. The plant, which serves most of southern Nassau County, uses tertiary treatment, offering maximum treatment capability.

Water sent to the East Meadow recharge facility prior to aquifer injection will be monitored on a routine basis. "We'll be able to determine what went into the plant, what happened virologically along the treatment train, what came out, what was introduced to the recharge system,

(Continued on page 2)



Mort Rosen

Kicking off the celebration for the H-5 kicker magnet, Y.Y. Lee pops the cork on a bottle of champagne. Bill Weng (foreground, third from right), and some of the other people who made major contributions to the project, join in the festivities.

Quicker Kicker At AGS

The guest of honor missed the celebration in the AGS control room on June 10. As the ISABELLE Beam Transfer Group joined the AGS team to toast the success of its first full week of operation, the new H-5 kicker magnet was still doing its job down in the AGS ring.

The job of this magnet is extraction — removing protons from the AGS ring to be used elsewhere. But, true to its name, this magnet does it with a quick kick, going from 0 to 3 kiloamperes in 180 nanoseconds, then leveling off.

This fast-switch characteristic is one of the things Y.Y. Lee, AGS Division Head, was aiming for when he conceived the design for the magnet about two years ago. Lee had taken a critical look at the fast extraction system in the AGS ring. In the fast-extracted-beam-mode, the full proton beam is delivered to the fast-beam U-line in only one turn. Lee found that while this was being accomplished speedily enough for current experiments, two impending projects demanded that the system provide faster switching, which requires higher voltage. Thus, the H-5 was designed with much smaller apertures than the old full aperture kicker magnet to make it easier to bring the magnet to those voltages and attain the full magnetic field.

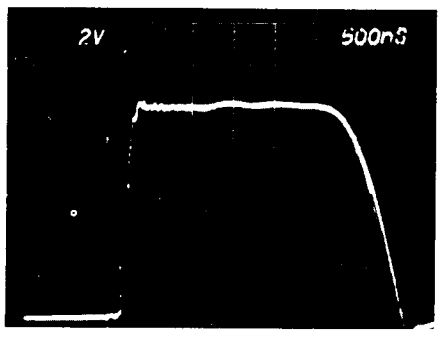
One of the projects was a neutrino experiment to study the elastic scattering of neutrinos from electrons and protons. A Bulletin story of January 30, 1981, which described the effort as "the biggest high energy physics experiment at the AGS," also said "that the plan is to complete the detector this summer and run ten weeks each fiscal year." The plan was right on target. With the successful commissioning of the H-5, the experiment was under way. This first run will continue for about six more weeks.

The injection system for ISABELLE is the second project Lee had in mind. Another four magnets, identical to the H-5 kicker, will be required to kick protons from the injection tunnel into the ISABELLE ring. Bill Weng, project physicist, called the present success of the H-5 "the most critical element in the whole thing. We know it works. It has met all our expectations. Now, this magnet will serve as the prototype for the other four."

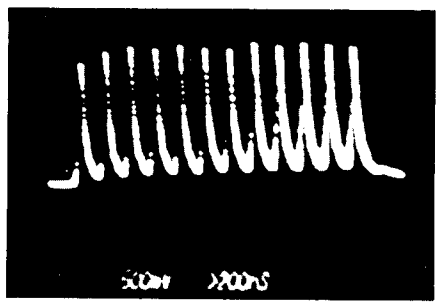
The success of the H-5 was anticipated. Back in February, the magnet was subjected to extensive testing of its magnetic field, its vacuum and its reliability. The results indicated that once the magnet was in its final location, it would perform as expected. And, after two periods of commissioning studies, it did.

Incidentally, it is from this location — downstream of the fifth magnet in the H super-period of the AGS ring —that the H-5 gets its name. This is just upstream from the final H-10 ejector magnet for fast extractions into the U-Line.

Commenting on Lee's idea, Weng said, "The extraction scheme and the design of the magnet's pulse-forming network are very simple and very clever." Lee, in turn, gave Weng full credit for putting the whole effort together. Both Lee and Weng also had praise for the engineers, technicians and electricians from the two different groups who worked so harmoniously over a two-year period to build the magnet and its two pulser power supplies. This is the first fast kicker magnet built at the AGS in fifteen years. More importantly, Lee said, "This was another successful joint effort between the AGS and ISABELLE."



As seen on the control panel of the AGS, this waveform shows the fast-switch characteristic of the H-5 kicker magnet, which takes only 180 nanoseconds to go from 0 to 3 kA before leveling off.



Proof that the H-5 is delivering protons to the U-line is found in this bunched signal. Taken in the U-line, it depicts the twelve bunches of protons extracted for the neutrino experiment.

Wolf Wins Aebersold Award

Senior Chemist Alfred P. Wolf received the Paul C. Aebersold Award on Tuesday, June 16, at the 28th annual meeting of the Society of Nuclear Medicine. The award has been given annually by the Society since 1973 for outstanding achievement in basic science applied to nuclear medicine. Paul Aebersold was the first director of the Atomic Energy Commission's Division of Isotopes Development. He was a pioneer in the development of biological and medical applications of radioactive materials.

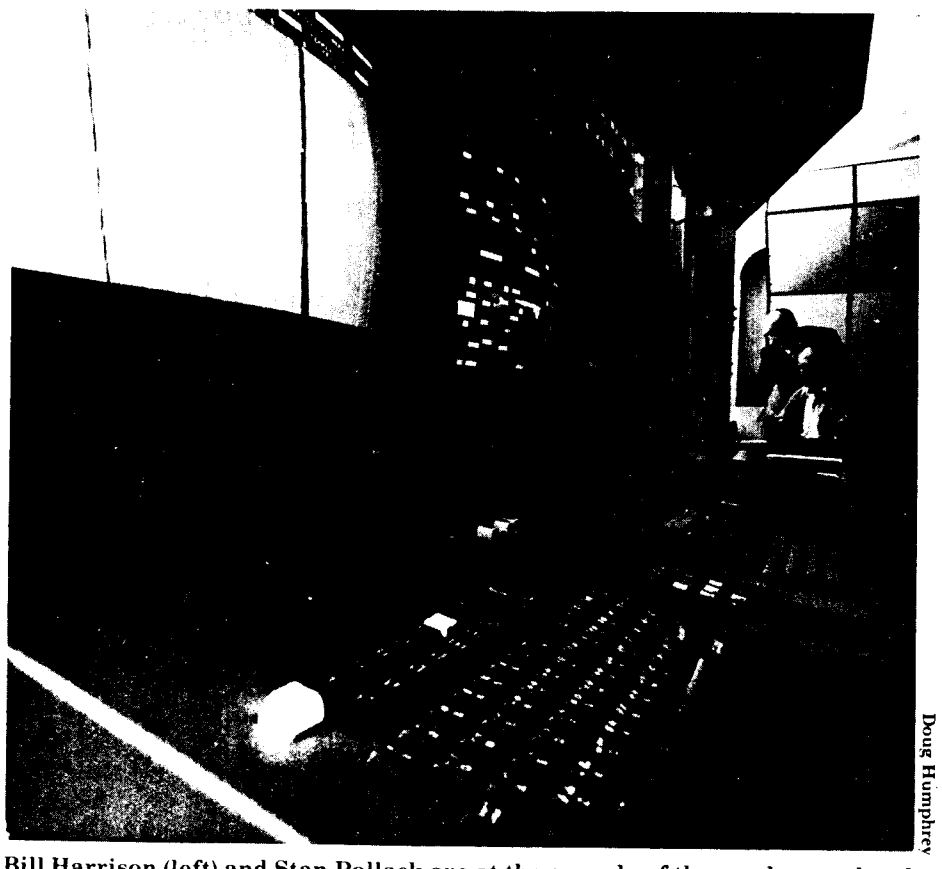
Alfred Wolf holds a Ph.D. in chemistry from Columbia University. He joined the Chemistry Department at BNL in 1951, and since 1966, has had an active program in cyclotron production of radioactive nuclides for radiopharmaceutical research and use in nuclear medicine.

He is currently principal investigator and program director for a major, five-year study of metabolism and neuroscience using a technique called positron emission transaxial tomography (PETT). The research is a collaborative effort being carried out by BNL's Chemistry and Medical Departments and the New York University Medical Center.

Mort Rosen

Alfred Wolf

Power Transmission System Nearing "Go"



Doug Humphrey

Bill Harrison (left) and Stan Pollack are at the console of the newly completed main control room of the Superconducting Power Transmission Line Test Facility. The last test, before the installation of the superconducting cables in the cryogenic enclosure, was completed recently and conducted from the new control room. The refrigeration system ran continuously for almost two weeks. Two days after start-up, the 400 foot cable enclosure was at 8.5 degrees Kelvin and heat was added. During the cold period, many performance checks were carried out with the indispensable assistance of the on-line computer system designed by the Instrumentation Division. Now that this successful test is behind them, the group is preparing for the grand finale. Cable installation is planned for this summer, with the big switch-on scheduled for later this fall.

Sunday Tours Begin In July

Because of budget cuts, the summer tours of the Lab will be considerably abbreviated this season. Instead of weekend programs, the tours will be given between 10 a.m. and 3 p.m., on Sundays only, from July 12 through August 30.

The eight Sunday tours will include a guided bus tour of the core of the Laboratory site and a guided walking tour through the Exhibit Center.

The three floors of the Exhibit Center, which once was the home of the Brookhaven Graphite Research Reactor, are full of displays which describe the Lab's research. The exhibits trace this research from the early years to the brand-new National Synchrotron Light Source, due to start operating this fall. Visitors may also stop at the Science Store, which is stocked with unusual gift items ranging in price from 10¢ to $6.

The tours will start from Berkner Hall and buses will take visitors to the Exhibit Center. While they are waiting they will be able to see Brookhaven's multi-media presentation "Quest" and a film describing the construction of the Brookhaven House, a conventional residence which demonstrates how thermal mass materials can be used to cut heating costs.

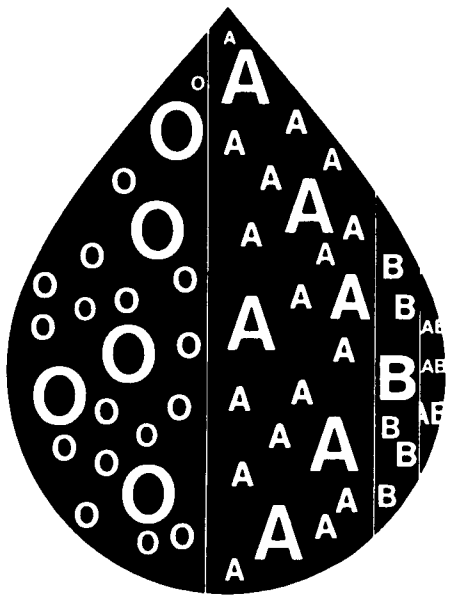
Give A Pint To Save A Life

Based on the number of pledges received so far by Len Emma, chairman of the BNL Annual Blood Drive, about 25% of the Lab's population will donate blood next Wednesday and Thursday, June 24 & 25.

Emma is quick to point out that he would welcome an increase in that figure at any time. Phone appointments can be arranged through June 23 by calling Ext. 3334.

Some potential donors with athletic inclinations are concerned that these activities might not be compatible. However, Dr. Laura Sbarra of the Occupational Medical Clinic says, "For the more casual athlete, there is no medical basis for avoiding blood donation." Sbarra explained further, "Blood donation under controlled aseptic (germ-free) circumstances ordinarily produces no effect on most people and should not adversely influence the ability to tolerate exercise if such exercise is resumed gradually after a day or two's rest. Those engaged in athletic competition where peak performance is required should probably not donate blood within 30 days prior to competition."

Where have the pledges come from? This list indicates the percentage of people in each department who have already signed up.



Personnel - 51%	DNE - 20%
App. Math - 50%	Physics - 18%
Tech. Info. - 45%	Chem. - 17%
Dir. Office - 41%	Medical - 17%
Accel. - 33%	Plant Eng. - 17%
C&P - 33%	Reactor - 17%
P&GA - 27%	DEE - 14%
Cent. Shops - 26%	ISABELLE - 14%
BHO/DOE - 24%	S&M - 13%
Fiscal - 24%	Biology - 11%
NSLS - 23%	Instr. - 11%
S&EP - 23%	Staff Serv. - 10%
ASDP - 9%	

Take Your Child To The Fair

Looking for something fun to do with your pre-schooler this summer? Set aside Saturday, June 27, for a Children's Fair. Put on by parents of youngsters enrolled at the Kids R Us day care center, the fair will run from 10 a.m. to 3 p.m. at the Middle Island Presbyterian Church across from Longwood High School on Longwood Road, near the main entrance to Brookhaven Lab. Admission is free, and the rain date is July 11.

Activities include a petting zoo, paper-folding, games, clown make-up, and a sing-along. Children will be entertained by puppet shows, story telling, rickshaw rides, and music by a banjo-guitar duo. At a health booth, they can even listen to their heart beat and have their blood pressure taken.

For parents, there will be a raffle of hand-crafted items, a children's book sale, a bake sale, and a rummage sale of toys, clothes and other items.

The fair's activities are so varied that families may want to spend the day there. To make it easier for everyone, a reasonably-priced lunch will be available to those who wish to picnic.

The fair is being held in support of the Kids R Us day care center, which serves BNL employees and the surrounding community. Children of ages two to five can be enrolled on a full or part-time basis. For more information, call the center at 924-8021.

Bring your child to join in the fun.

Artists Turn On To Physics

Last week, a group of Manhattan artists came to Brookhaven Lab for inspiration. As they put it, "artists have always gone to nature for inspiration. Now that we're living in the city, we find that science provides that insight into nature."

The artists spent most of an afternoon touring high energy physics areas, which they felt was a good way to begin because "physics is the most fundamental of the sciences." They were particularly eager to see particle tracks, which reveal an aspect of nature not visible to the naked eye. Taro Suzuki, who works with multi-colored lights bouncing off mirrors, said bubble chamber pictures were perhaps the most useful to the artists because they contain the most visual information.

Another in the group, Marilyn Boteler, plays in a rock and roll band and also edits a science column for a Soho newspaper. She was the most concerned about understanding the scientific explanations and felt that all the information absorbed that day "goes around in your brain for awhile and eventually comes out in different ways." For Boteler, the end result would probably be lyrics.

About four years ago, the Lab was also visited by an artist who later produced a silkscreen of the famous Omega-minus event. The art work currently hangs in the AGS library. Asked to comment on it, a few of the Manhattan artists said they would rather frame original particle track photographs. Said Suzuki, "Many scientists may not realize it, but what they are working with *is* art."

A Positive Commitment

Doug Humphrey

Speaking on "Affirmative Action at BNL," Harvey Thomas, Affirmative Action Assistant to the Director, addresses a joint meeting of the Affirmative Action Advisory Committee and 41 Affirmative Action Representatives at the Brookhaven Center on June 11. At this first meeting in a series planned by the Affirmative Action Office, several department chairmen and other guests were also on hand for an opportunity to define and discuss the Lab's policy. The Lab's commitment to affirmative action was emphasized by Warren Winsche, Deputy Director, in his opening remarks. Following Thomas' speech, committee member Harriet Fadem introduced the film "Bill Cosby on Prejudice." The ensuing discussion, led by committee member Jag Dalal, explored the forms of prejudice and how to handle them.

Nassau County (Cont'd)

and what may have eventually entered the aquifer," Vaughn said.

The virus groups being assessed (polio, coxsackie, echo, rotavirus) affect only humans. At present, there is no national viral standard for pollution, but Vaughn believes such studies are a step in that direction.

Viruses are thought to be a good indicator of the quality of effluent. "They're hard to remove by conventional wastewater treatment," Vaughn said, "so if you eliminate viruses, you're probably removing other pollutants as well."

A particular advantage to the three year duration of the study noted by Vaughn is the opportunity to study the seasonal changes in virus populations. "We may find the seasons to have an arbitrary effect, but we don't know that for sure," he said.

BNL was chosen for the project on the basis of its extensive experience in the field of environmental virology. At present no other laboratory in the northeast possesses the facilities necessary to conduct viral isolations and enumerations from a variety of environmental samples. This is the fifth such study Brookhaven has conducted on Long Island.

— Myra Aronson

(Myra Aronson is a summer student in Public Relations).

Phone Facts

One of the things the GTE telephone system can do that the old phone system could not do is to provide details on all calls dialed from BNL, including those made over Foreign Exchange Trunks or FTS. These details include the calling number and the called number, the date and time of the call, the duration of the call, and the total charges.

IBEW Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on June 25, 1981, at 6 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

PR Is *For* The Birds

The entrance to the Public Relations Office has been a bird sanctuary for the last couple of weeks. A short while ago, an enterprising bird built its nest in an opening that was to be used for light fixtures outside the entrance. When the time came to put in the bulbs and close up the opening, the question arose — how to handle one scrawny nestling and four blue eggs?

Electricians Steve O'Kula and Walter Annand carefully removed the nest and placed it in a box above the door of the PR office. As mother bird would not return to the nest if people were constantly opening and closing the door, a detour was set up for entry to PR.

We are sorry that you are inconvenienced, and as soon as the birds are hatched and have spread their wings, the PR door will once more be opened. So far, we have heard a lot of peeping and mother bird has been observed flying in with worms and other delicacies. Life goes on.

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Published weekly
for the employees of
BROOKHAVEN NATIONAL LABORATORY

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Letters To The Editor

To the Editor,

On behalf of Jim Griffin and the rest of our ballteam, I wish to thank the BNL Fire Department's EMT squad for their prompt teamwork in aiding Griffin, who was injured on Monday night, June 15. Their quick action in splinting his leg and transporting him to the Brookhaven Memorial Hospital emergency room deserves praise. It should put our minds at ease to know that the BNL EMTs are trained and prepared to handle such crises.

— Gerard M. Van Derlaske

A Little Sun Goes A Long Way

As sunburn can be painful, here are some tips for your protection:

- Expose the skin to the sun gradually. Start with 15 minutes the first day and increase exposure by 15 minutes/day.
- Don't bake in the sun during midday (11 a.m.-3 p.m.), especially if you burn easily. The sun's ultraviolet rays are most intense at this time.
- Apply a sunscreening preparation if you expect to stay in the sun for more than a few minutes. (Tennis players — protect the nose, ears, and V of neck — areas particularly vulnerable to the effects of the sun).
- Don't use cocoa butter, baby oil, mineral oil, or other similar preparations — they soften the skin but don't offer protection from the sun. Only sunscreening agents will do this (check labels).
- Wear sunglasses.

Symptoms of sunburn usually don't appear until at least two hours after exposure and may vary from mild redness, to pain, swelling, and blistering. Severe cases may cause systemic symptoms such as fever, chills, nausea, delirium, and prostration.

Simple sunburn (redness of the skin with no blistering), can be treated by taking cool baths — baking soda added to the water may be soothing. Mild lotions or creams may help soothe and lubricate the skin after it has cooled. If you must go back into the sun, cover the burned area. If blistering or systemic symptoms develop, a physician should be consulted.

— Caroline Kramer R.N.
Occupational Medicine Clinic

Arrivals & Departures

Arrivals

Carl R. Bock ..... Energy & Env.
Chi-Wen F. Cheng ..... Chemistry
Desiree A. Harmon ... Nuclear Energy
Joseph Shpungin ..... Biology

Departures

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

Joseph F. Considine ..... Accelerator
Kenneth M. Figluizzi ..... Plant Eng.
Barbara A. Plonski .... Energy & Env.
Ram Pyare ..... Nuclear Energy
Mark Raynor..... Satety & Env. Prot.

Secretarial Science

Elfrieda Gaias of Grumman Aerospace Corporation will be the speaker at the next Women in Secretarial Science meeting on Tuesday, June 23. The meeting will be held from noon until 1 p.m. in Berkner Hall Auditorium. Any questions, call Joann Langan, Ext. 7203.

Kid's Swim Lessons

This is to remind all employees that children's swimming lessons and other summer activities will begin on Monday, July 6.

Program information sheets and swimming lesson application forms may be picked up at the Recreation Office in Personnel, the BERA Film Service Office (between 9 a.m. and 1 p.m.), or the swimming pool (during open hours).

Completed swimming lesson applications, accompanied by the required fee, should be mailed or delivered to the Recreation Office, Building 185, by Wednesday, June 24.

Questions regarding the program may be directed to Blanche Laskee, Ext. 2873.

Gym Closing

The annual Lab Blood Program will pre-empt usage of the gymnasium for all atheletic activities starting Tuesday, June 23, through 11 a.m. on Monday, June 29.

Softball

Scores for week of June 1:

Source I 20 — Six Pax 17
Phoubars 10 — Blue Jays 9

League II

Roga 15 — Moles 4
Cardinals 10 — Deegenerates 8
Big Sticks 10 — AM D Bombers 6

League III

Magnuts 14 — Binary Bombers 4
Ice Pops 8 — The Forties 7
Lights Out 16 — Nuke Powers 15
Dirty Sox 9 — Electric Co. 6
Medical — bye

League IV

NA DS 5 — Random Sample 3
Survivors 20 — Turkeys 2
Thrids (won) — TNT (lost)
Balls & Strikes vs. E-Z Riders — game postponed
Makeup Game:
Survivors 15 — TNT 7

League V

Who Cares — No Feedback (forfeit)
Mudville Sluggers 23 — Solar Power 10
No Names 15 — Underalls 13
Who's On First 10 — Source III 5

Scores for week of June 8:

League I

Blue Jays 10 - Ravens 8
Phoubars 11 - Source I 6

Leage II

Big Sticks 23 - Roga 19
Cardinals 99 - Moles 8
Deegenerates 15 - AMD Bombers 5

League III

Electric Company 34 - Lights Out 21
Dirty Sox 5 - Ice Pops 4
Nuke Powers 20 - Medical 8
The Forties 12 - Binary Bombers 11
Magnuts - bye

League IV

E-Z Riders 22 - Thrids 2

Dennis Hall was 6 for 6 with 6 RBI's and Dennis Weygand was 5 for 5, leading the E-Z Riders to victory.

Survivors 11 - Nads 10
Random Sample 21 - Turkeys 14
TNT 31 - Balls & Strikes 10

League V

No Names 12 - Mudville Sluggers 6

Herbie Harris and Kevin Cosgrove had two home runs each, and Twig Bender had a triple for the No Names.

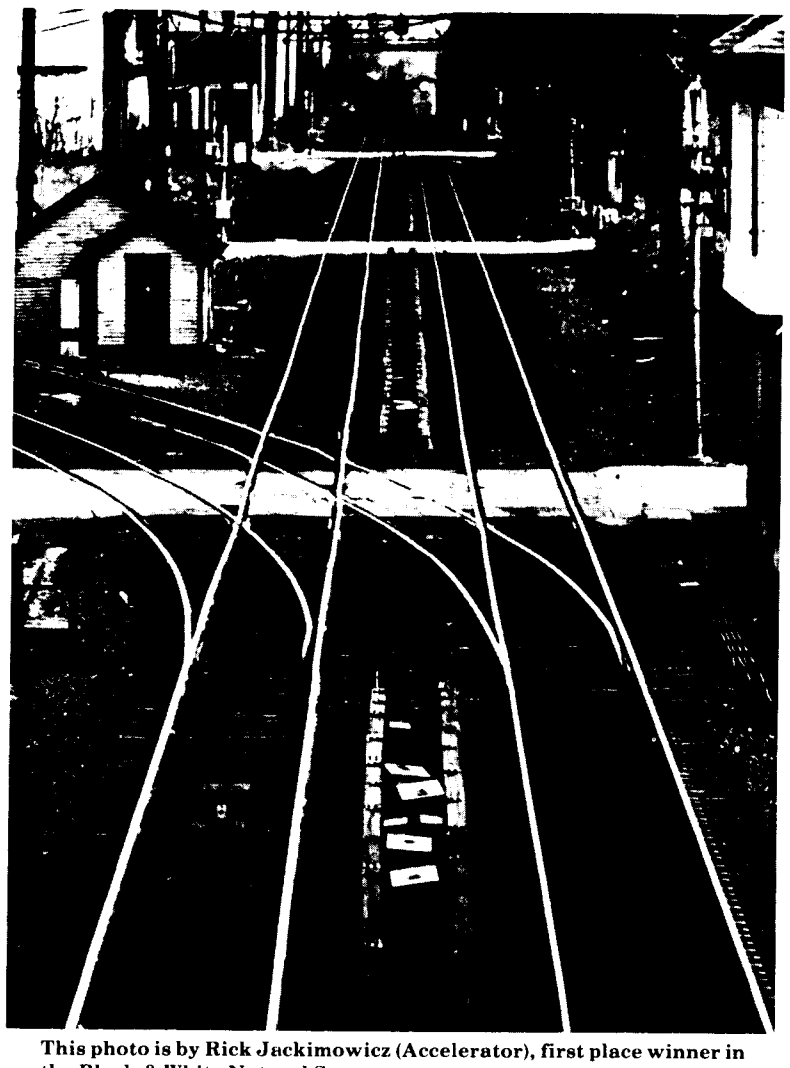
Molesters 26 - Who's on First 17

Richard Ferrari had a home run and Joe Henderson and Connie Koehler had two home runs each to lead the Molesters to victory.

Who Cares 14 - Underalls 13

Overall great team playing highlighted by Elliot Levitt (home run) and Antoinette Carollo with some great fielding plays led Who Cares to victory.

Source III forfeited to No Feedback.



This photo is by Rick Jackimowicz (Accelerator), first place winner in the Black & White Natural Scenes category.

Photo Finish

Award winners of the Camera Club's recent photography exhibit at Berkner Hall were:

B&W Portraits
- 1st - Kurt Fuchel
- 2nd - Ripp Bowman
- 3rd - Ripp Bowman

B&W Natural Scenes
- 1st - Rick Jackimowicz
- 2nd - Richard Witkover
- 3rd - Richard Witkover

Color Portraits
- 1st - Ripp Bowman
- 2nd - Ripp Bowman
- 3rd - Jan Collinson

Color Animals
- 1st - Maria Waite
- 2nd - Rick Jackimowicz
- 3rd - Richard Witkover

Color Seascapes
- 1st - Tom Luhman
- 2nd - John Burdick
- 3rd - Ed Kush

Color Natural Scenes
- 1st - Chris White
- 2nd - Richard Witkover

Best of Show - Chris White

Judges were Anne Baittinger, Doug Humphrey and Bob Walton.

CREF Values

April	$41.82	May	43.70
June	44.81	July	47.84
August	48.04	September	48.75
October	49.13	November	53.19
December	51.77	January	50.20
February	51.21	March	52.85
April	52.39		

May $52.56

Cafeteria Menu

Week Ending June 26, 1981

Monday, June 22

Cream of tomato soup	(cup)	.55
	(bowl)	.65
Curry veal & rice pilaf		1.60
Scrambled eggs, sausage & fries		1.50
Hot Deli - Smoked ham	(on bread)	1.65
	(on roll)	1.75

Tuesday, June 23

Beef noodle soup	(cup)	.55
	(bowl)	.65
Barbecue chicken & 1 veg.		1.55
Ham steak Hawaiian & 1 veg.		1.55
Hot Deli - Corned beef	(on bread)	1.65
	(on roll)	1.75

Wednesday, June 24

Split pea & ham soup	(cup)	.55
	(bowl)	.65
Beef vegetable medley		1.60
Salisbury steak & 1 veg.		1.60
Hot Deli - Monte Cristo		1.70

Thursday, June 25

Lentil soup	(cup)	.55
	(bowl)	.65
Hungarian goulash on noodles		1.60
Sauteéd chicken breast on rice		1.65
Hot Deli - Roast beef	(on bread)	1.65
	(on roll)	1.75

Friday, June 26

Fish chowder	(cup)	.60
	(bowl)	.70
Tuna noodle casserole		1.60
Sauerbraten & potato pancakes		1.65
Hot Deli - Fish fillet hero		1.65

Bike Race Results

Seven BNL riders were among the 43 who took part in the 9th Annual BNL Spring Bicycle Race recently. The record number of cyclists included many unaffiliated local residents as well as members of the Suffolk Bike Riders Association (SBRA) and the Country Time Cycle Club.

The 2-lap, 32-mile event was won by Ed Kemnitzer, SBRA. The results of the single lap time trials were: Jr. Men - Brian Williams, Mattituck; Sr. Men - Ed Ablinski, Sayville; Veteran Men - Steve Gessler, Holbrook; Jr. Women - Erin Hoening, Wading River; Sr. Women - Susan Seif, Wading River, SBRA. In the Veteran Men category, BNL'ers Richard Squires, Bill Casey, Ron Manning and Ernest Courant finished 3rd, 4th, 7th and 8th, respectively.

Call For Bowlers

It is early to think about bowling this fall, but priority applications for next season must be submitted by July 10. The deadline is July 30 for all teams. Applications can be obtained from the various league secretaries or at the BERA Sales Office in the Cafeteria. If you would like to bowl, even as a substitute, contact Rich Larsen, Ext. 3464, Helen Keeley, Ext. 4649, or Betty Jellett, Ext. 3631.

You have reached middle age when the girl who smiles at you thinks you are one of her father's friends.

•

Being an egotist has one good point; one doesn't do much talking about other people.

Classified Advertisements

Autos & Auto Supplies

72 VW SQUARE BACK - new tires, brakes, front end, needs engine work. Asking $900. 757-5248 eves.

71 PHYMOUTH CRICKET - 67,000 mi, gear box needs work. $250. Peter, 282-2315.

67 CHEV VAN - std. shift, '70 - 307 engine, clean in & out, $950. or best offer. Bill, 698-4882 after 6 p.m.

74 PONTIAC - Grand Sta. wgn, fully equipped, including tape deck, good cond. $800. 286-9148 eves.

72 PINTO - good running cond. $500. 289-7683 before 5 p.m.

75 VW RABBIT - 2 dr. hatchback, 4 spd, manual trans, am radio, economical, body in good cond. $1,700. Gene, Ext. 2943 or 286-0263 after 6 p.m.

VEGA TRANSMISSION - 3 spd manual. Duke, Ext. 4278.

74 JEEP CJ-5 - yellow w/brown soft top, 304 eng, 3 spd, CB, fm 8 track, roll bar, 11-15 tires. Asking $2,600. 654-8278 eves.

78 RENAULT - LeCar, good running cond, excel MPG, 35-40 MPG, reasonable. Ext. 7927 or 878-2891 after 6 p.m.

78-GS SUZUKI 750 - excel cond, Plexifaring custom seat, rack & sissybar, velocity stacks, new tires. $1,800. 698-0818.

68 PLYMOUTH SATELLITE 4 dr, good transp, $200. Firm. Ext. 3431 or 744-9677.

WINNEBAGO INSULATED CAP - fits shortbed foreign pickup. $150. 744-3926.

SPARK PLUGS - 6 AC 44FF, $3; 8 Champion RJ-18Y, $4. Ext. 4846.

79 HONDA CX500 - Luggage rack w/back rest, 5000 mi, immaculate cond. $2,100. 979-9354 after 6 p.m.

73 VEGA - 3 spd, new battery, new starter. Asking $300. 744-5517 eves.

AUTO A/C - add on fits small block GM. $150. Bob, Ext. 4547.

72 DODGE VAN - good cond, a/t, maxi, power, needs some work (body & trans) $650; Parts - '78 Datsun F-10 shop manual, $7; Jack, $5; new tire & rim (165x13) radial, $35. John Ext. 3292.

CHROME WEST COAST MIRRORS - for pickup truck, $15; elect. auto antenna, $10. Paul, Ext. 4665 or 727-4859.

74 VW DASHER - high mileage, good cond. $700. Frank, Ext. 4709.

70 OLDS DELTA 88 - low rust, excel cond, very dependable, p/s, p/b, a/c. Must see Joe, Ext. 2022.

70 OLDS 88 - conv., needs rear window. $500. Carl Cantera, Ext. 2417.

71 NIMROD CYPRESS - Camping trailer, pop-up, sleeps 8, refrig, stove, sink, many extras, good cond. Asing $1,000. 744-4047.

67 VOLVO - 4 cyl, a/t. 4 dr., running cond, good tires, new spare. $250. 929-8662.

69 T-BIRD - good cond, fine int., 429 engine. $490. 265-1039 after 6 p.m.

TIRE - BR78 radial glass belted tire w/w. $8. Bob, Ext. 4551.

71 PLYMOUTH DUSTER - good for parts, good body, best offer. Steve, 744-5894 after 7 p.m.

CAR COLLECTOR -1966 Dodge Charger. $200. Rebuildable engine 318 cu. in. All orig. Ext.5042 or 475-5694 eves./

73 DODGE MONACO - Wgn, a/t, p/b, p/s, a/c, CB am/fm stereo, radials, 2 extra snows, 76,000 mi, many new parts. Best offer. Ext. 3926.

79 JEEP CJ-5 LOWBACK SEATS - $40/pr; electric "Superwinch" 3000 lb. capacity, $200; Goodrich Lifesaver steel belted radials FR78-15, excel cond. 4/$100; (2) 1977 Chevy Van highback seats. $30/pr. 286-0745 eves.

70 FORD TORINO - good cond. $500. Joe, 475-8440 after 5 p.m.

RIMS - 14" for Chrysler products w/2-5/8" spacings between lugs. (center to center) Morris, Ext. 4192.

76 MAVERICK - Front end damage, parts for sale or whole car, 6 cyl, a/t. Best offer. Gerry, Ext. 4471.

75 PONTIAC LEMANS - 8 cyl, p/s, p/b, a/c, 45,000 mi. 584-7324.

ACCESSORIES - performance parts for auto, truck, van, 4x4 or RV. Discount prices. Hans, 281-5563.

67 SCOTTY CAMPER - 13' sleeps 5, sink, stove, refrig., toilet, single axel, extras. 567-6251.

78 FORD FIESTA - 4 spd, 29,000 mi, excel cond, v.g. MPG. $3,5000. 744-4047 after 6 p.m.

73 HONDA - CB 350 w/sissy bar, luggage rack. $600 or best offer. John, Ext. 3651.

Boats & Marine Supplies

FISHING CHAIRS - (2) folding type, wood w/Lees, bronze chrome plated gimbals. $25. ea. Lou, Ext. 4615.

30' GRAMPIAN SAILBOAT - sleeps 6, atomic-4 engine Draft 3'3", extra sails, excel cond. Frank, LI1-9582.

14' FIBERGLASS RUNABOUT - 35 HP, 1975 w/trailer, elect. start, speedometer, many extras, v.g. cond. $1,175. Ext. 2906 or 929-6189.

OUTBOARD ENGINE - 50 HP Evinrude, 1975, will demonstrate. $600. Tom, Ext. 7916.

18' CUDDY CABIN CRUISER - fiberglass over Marine plywood, sleeps 2, trailer excel. $1,000. 281-3455.

38' MATHEWS - 1929 Classic, v.g. cond, new Chry. V8, full galley, head, fly bridge, sleeps 5, fully equipped, surveyed, dockage paid. $6,700. Dick, 472-2049.

12' SEARS FIBERGLASS BOAT - 7½ HP motor boat, trailer. $950. Call Ann, 567-4200 from 8 to 5.

28' SLOOP - double planked, 22 HP Palmer. MJG, sleeps 4, enclosed head, galley. Good cruiser. $15,000 or offers. Ext. 4745.

1971 SPORTCRAFT - 19 ft. fiberglass, 100 HP Evinrude Cuddy Cabin, excel Bay boat. $2,250. Ed, Ext. 7943 or 589-3992.

BOAT ANCHOR - Navy type. $15. 475-4199.

32' ENDEAVOR CENTERBOARD - like new, fully equipped, ready to sail away. Ext. 4062 or 727-2302.

16' ALUMINUM MIRROR CRAFT - 28 HP Evinrude, galvanized trailer, easy trailering. $750. Dennis, Ext. 2897 or 727-7278.

Yard Sales

YARD SALE - June 19 & 20th, 101 Jennings Ave., Patchogue. Misc. Collectibles.

YARD SALE - June 27 & 28th. Bumstead, 27 Bay Rd., East Patchogue. Noon to 5 p.m. 286-1456.

HUGE GARAGE SALE - June 20th, 9 a.m. to 5 p.m., 4 Dundalk Rd., Manorville. Off Dayton Ave. Misc. items, great buys.

YARD SALE - June 20 & 21st, 5 Dartmouth, Shoreham. 10 a.m. to 4 p.m. Household items, toys, furniture. 744-4627.

Miscellaneous

REFRIG - GE combination, $75; queen size bed, box spring, frame, $50. good cond. 744-0262.

STRAWBERRIES - pick your own, ready picked, or picked to order, 4 qt. min. Fire Place Neck Rd., Brookhaven Hamlet. 289-0876 or 286-0024.

DEEP WELL PUMP - new 3/4 HP, Goulds VS07, $200. 924-3522 after 5:30.

STEEL CASEMENT WINDOW - 3x3. Best offer. Ext. 3838.

CAMERA - 35mm Exakta Twintl; 50mm, f2.8 preset lens; 135mm f2.8 auto lens; flash, case, strap, good cond. $175. Ext. 4184.

MARIGOLD PLANTS - mixed colors, $1.10/dz. Bill Stars, Ext. 4278 or 298-9648 eves.

CHRISTMAS PLATE - Avon 1976 boxed, "Bring home the tree." $15. Pete, Ext. 4782 or 289-7218.

COLONIAL WALLPAPER - and paste, brand new, cost $200; selling for $75. 286-0874 after 5 p.m.

RUG PADS - one 7x10, one about 9x12, free. 472-1174 eves.

FIRE WOOD - split & seasoned, local delivery free. $140/cord. 399-4213.

COBRA 135 - SSB, Clock, std. CB, 19 channels maco 200 power boost, SWR meter, pluses. Excel. $500. Firm. 744-0778 eves.

REFRIG - Hot Point, brand new, 14 cu. ft. Paid $500. Asking $325. 281-5792.

CEMETERY PLOTS - (2) 4 graves at Pinelawn. $1200/pr. Ext. 7580.

GYM SET - rope climb, swing, rings and ladder, $25; 2 spd 30" GE exhaust fan & cover. $75. Ext. 4846.

KITCHEN CHAIR - $4; scalloped curved, red bricks, 24" length. $1.50 ea. 281-7844 eves.

LIGHT FIXTURES - 2 wrought iron, $15. ea; stone wood stove base, $20. Diane, 929-6748.

BLANK TAPE CASSETTES - C-90, top quality, FeCr retail $4-5, $2.50 ea. lots of 10. Ext. 2521 or 928-8379 eves.

MEDITERRANEAN STYLE SOFA - folds into bed, unusual design, excel cond. $80. 286-3540 eves.

LAWNMOWER - push type reel, old but good, $15; fireplace door & screen, fits opening 34-38"/25-29", screen $15; door, $35. John, Ext. 3292.

IBM ELECRIC TYPEWRITER - $125; garage heater, forced hot air - oil fired, $25. Paul, Ext. 4665 or 727-4859.

TRAINS - Lehmann LGB, Marklin, Lionel, all #1 or standard gauge. Doug, Ext. 7521 or 744-7904.

PLAYPEN - wood, good cond, asking $20. Rhonda, Ext. 7927 or 878-2891 after 6 p.m.

POOL LADDER - stainless steel, like new, white steps. Jim, 289-0876.

COLOR T.V. - RCA 21", $135; hair dryer, $4; electric percolator, $2. Ext. 3106.

REFRIG - GE avocado, 10 cu. ft. one door, good cond; Metal wardrobe brown, 58" high, 42" wide, 19" deep. 585-9031 before noon.

MOTORCYCLE HELMET - good shape, $10. Frank, Ext. 4709.

GIRL'S BIKE - 18" rim, v.g. cond. $25. Carl Cantera, Ext. 2417.

REFRIG - GE, 18 cu. ft. side by side, avocado, 4 yrs. old, perfect cond. Ann, Ext. 4959.

WINE PRESS - crusher & barrels for sale. JU8-8105.

WASHER - multi speed w/mini wash, hardly used, $275. 924-7930 after 5 p.m.

SWIM FINS - U.S. diver "Spoiler" $15. Bob, Ext. 5286.

GENUINE MARTIN TENOR SAX - w/mouthpiece, neck case, excel tone, excel cond. $550. 585-6683.

SYNTHETIC - Blue Star Sapphire, 10K whitegold, retail price, $69.97, size 5, $45. firm. 589-5126 eves.

DISHWASHER - GE completely rebuilt last year. Runs fine, but doesn't clean well. Dick, Ext. 2911.

APPLIANCES - washer, $200; dryer, $150; electric range, $275; dining room set w/6 chairs, $200. John, Ext. 3300 or 472-1956.

CHAIR - (1) liv. rm. upholstered swivel chair, $15; TV 21" Admiral console B&W Contemp. walnut cabinet, $50; TV 25" GE color console, wood ca. needs sound work, picture good. $100. 929-6148.

TORO POWER HANDLE PARTS - and accessories. $50. Bob, Ext. 2104 or 928-3863.

TABLE SAW - 10" or 12" commercial enclosed bottom side extensions, complete assembly. 878-8967 after 5 p.m.

MEN'S HOCKEY SKATES - baseball cleats, like new, size 10. Best offer. Steve, 744-5894 after 7 p.m.

TRIPOD BUMPER JACK - $5; vacuum cleaner, hand, $5. Walter, Ext. 3397 or 567-9025.

ELECTRIC RANGE - 48", You Haul. Best offer. Ext. 5042 or 475-5694 eves.

DEHUMIDIFIER - good cond, Westinghouse, $85; table power saw, home made, $45; heater Catalitic Colman, $15. Ext. 7666.

DOG - lovable, friendly. Free. Doris Rhodes, 929-4688.

SWIMMING POOL - 12'x3' w/filter, ladder, 2 pumps, used one season, like new cond. $50. Russ, 325-0563.

REFRIG - Westinghouse. $75. Joe, 475-8440 after 6 p.m.

END TABLES - two; (1) cocktail table, pair lamps Early American, good cond. Maple. $75. price negotiable. 289-1439.

CLOTHING - jewelry, collectibles, antiques, etc. Tues. thru Sat., 10 a.m. to 4 p.m. 185 So. Country Rd., Bellport (behind Methodist Church)

CHANDELIER - 10 light bronze w/crystal prisms, v.g. cond. $35. 273-5574 after 5 p.m.

GAS BARBEQUE - w/tank, good cond. $50. Russ, 325-0563.

WHEEL HORSE TRACTOR - w/4 attachments. 929-4681.

BEGINNERS GUITAR - w/case, new cond. Walt, 298-8601. $25.

DESK - solid maple; misc. children's items, stroller, dresser, etc. 286-2127.

BIKES - (2) good cond, blue 20". $50. for both; Barbeque 4/wheeler, good size grill, good shape, $10; 20 lb. propane tank, $15. Ext. 2964.

CONTEMP COLONIAL - triple dr; 2 nite tables; armoire; 2 twin beds, dark walnut. Must see. $425. or best offer. Diane, 878-1630.

BOWLING BALL - $4; baby bouncer, $3; tire 6.50-13, $10; golf clubs, No. 9, $2. ea. Susan, Ext. 4267.

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

LAKE RONKONKOMA - 2 bdrm ranch, extra lg. kit, d/r, l/r, bath, Florida rm w/stove, att. garage, full bsmt, alum. siding, 1/2 acre. $36,000. 588-1464 after 5:30 or Ext. 2964.

EAST MORICHES - custom built 5 bdrms, 2½ baths, kit, d/r, eating area, l/r w/fp, den w/fp, 2 porches, full bsmt w/fp, garage, fully landscaped, 1 acre land, slate patio, beach & marina rights, 1 mi. to beach. 7½% int. Job transfer. Sacrifice. $85,000. 878-1630.

EAST PATCHOGUE - South County Rd., 2-3 bdrms, alum siding, f/p, s/s, detached garage, .50 acre. $35,500. Ext. 2517 or 331-3358.

EAST PATCHOGUE - 3 bdrms, 34,000 sq. ft., brick ranch, in-ground pool. Best offer over $59,000. 654-8278.

FLORIDA - new condominium, next to Lake Munroe at Sanford, 10 mi. from Orlando. Must sell. 473-6432.

For Rent

CORAM - house to share, female to share w/same, washer/dryer, a/c, w/w, own bath. $50/wk. + ½ util. 698-0759.

CORAM NORTH - Strathmore East ranch, 3 bdrms, 2 baths, study, fam rm, eik, 5 appliances, priv. fenced yard, gas heat. $575/mo. plus util. Avail. Sept. 1st. 928-7154 or Ext. 3791.

MIDDLE ISLAND - Sunny 1 bdrm apt., 10 min. from Lab, lg. rooms, eik, terrace, lg. closets, central a/c, swimming, tennis. $335/mo. Available sublet August 1st. to April. Lease may be renewed. 924-7930 after 5 p.m.

N. CONWAY, NH - Vacation home, center of Mt. Washington Valley resort, 5 bdrms, sleeps 10 plus, 3 baths, TV, laundry & extras $300/wk. 617-443-5591.

SHIRLEY - modern 3 bdrm apt, plus garage, one month security. 744-2947 after 6 p.m.

CENTER MORICHES - 3 bdrm ranch, 15 min. from Lab. $340/mo. 1 yr. lease. Security required. Ext. 4171 or 878-1280.

MIDDLE ISLAND - 6 mi. from Lab, Condo, 3 bdrms, 2 baths, 5 appliances, use of club house, swimming pool, tennis. Franz, Ext. 7103 or 744-3235 eves.

POCONO'S - Chalet in Private community, lake's, pool, tennis close by. Rent by week. $175. 289-2159.

VERMONT CHALET - beautifully furn., stone fp, wkly rentals; woodland trails, pond & lake, swimming, boating, fishing, nearby Alpine slide, antiques, etc. 757-5599 after 4 p.m.

Wanted

HOUSEMATE - share lg house, 20 min. to Lab & SUNY. $115/mo. plus 1/3 util. Ext. 2521 or 928-8379 eves.

CAR BODY - for a '72 Pinto or Mustang, 4 cyl motor. Rose, 727-0661 after 4 p.m.

BICYCLE - men's 27" 10 spd, in good cond. 928-6930 or Ext. 2487.

CLEANING WOMAN - reliable, experienced, thorough worker. 475-8658 after 6:30 p.m.

BUSINESS ASSOCIATE - excel. 2nd income, 8-10 hrs./mo. No investment req'd. 698-5861 after 7:30 p.m.

VIOLIN - half size, Maggie, 744-4787.

PEREGO FOLDING STROLLER - deluxe model, swivel wheels, good cond. Pete, Ext. 4782 or 289-7218.

TRAINS - Lionel, American Flyer, accessories, any cond. brings good price. Carole, Ext. 3362 or 924-4097.

HOUSE - 3/4 bdrms to rent for 1 yr. beginning Sept. Visiting scientist & family. Ext. 3786.

SINGLE ROOM - to board, reasonable. Inquire at Lab Service Station. Ask for Greg.

DOUBLE BED - fram, mattress, and box spring. Ext. 2524.

SMALL FURNISHED APT. - or house 10 miles or less from Lab. Paul Joacobsen, Ext. 7635 day times.

A RIDE TO SUFFOLK COMMUNITY - College, Selden - Eves, Tuesday & Thurs Willing to Pay. Elvira, Ext. 4224/3001.

HOUSE & PET SITTER - June 29th thru July 23rd. 744-9356 after 3 p.m.

TIRE RIM - 15x7 or 15x8, white spoke for Jeep or Ford. Toni, Ext. 2907.

LADDER - extension, 30'; also tires, regular F78-14 or G78-14. Lee, Ext. 7629 or 929-3023.

POOL FILTER - 3/4 HP or greater. Joe, Ext. 7636 or 924-6971.

HOME - 1 yr. old Peruvian white guinea pig for adoption. Good pet. Ext. 2497 or 286-2203.

PLAYGROUP - playmate for 4 yr. old boy or babysit for 4 yr. old. Mastic Beach Area. 281-1773.

GAS BOILER - and hot water, used or new. 924-0960.

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

BICYCLE - 16" in good cond. 744-5553.

MOVIE PROJECTOR - 8 mm (not super 8) in good cond. at garage sale price. Hill, Ext. 2247.

SOMEONE INTERESTED - in teaching me about Ann Wigmores Diet. Hugh, Ext. 5051 or 924-3293.

HOME - for pet raccoon, half tame, loveable. Dorothy, 981-1063.

TRAINS - Lionel, American Flyer, accessories, any cond. brings good price. Carole, Ext. 3362 or 924-4097 eves.

BABYSITTER - Middle Island, Ridge area; part-time for 2 toddlers. 8:30 to 5 p.m. 924-5495 after 6 p.m.

BABYSITTER - work days, ages 5, 3, and 7 months. On-site. 689-8040.

JEWELERS LATHE - and jewelers drill. Lou, Ext. 3506 or 4574.

SMALL MOTOR - for alum. boat, elect. or gas. Reasonable. Ext. 2964.

POWER STEERING UNIT - for 1975 Cordoba and 1975 Volvo for parts. 286-8185 after 5:30.

HAND WINCH - for boat trailer. 20 ft. 821-9296 after 6 p.m.

SUMMER STUDENTS - To join us for a jaunt to Smith Point Park Beach. Meet Sat., 10 a.m., parking lot near BNL tennis courts. Bring a lunch and car if you have one. Myra, Ext. 3327.

Car Pools

ROSLYN - Student commuter from Ext 36 LIE, seeks student(s) or employee(s) coming along LIE (prefer Nassau) for car pool. Scott, Ext. 3631 or 248-0714.

EAST SETAUKET - Paying rider wants on-time car pool from area. Brian, Ext. 3284.

MATTITUCK - have car wishing to join existing car pool. Bill Stars, Ext. 4278 or 298-9648 eves.

RONKONKOMA - 1 driver to join car pool near LIE exits 59, 60 & 61. Victor, Ext. 2395.

SOUND BEACH AREA - existing car pool needs one more member. Ann, Ext. 4959.

FROM PATCHOGUE VIA BELLPORT - 9 yr. old car pool, on-time, has vacancy for paying rider. Alyce, Ext. 5203.

EAST ISLIP/BABYLON AREA - driver for existing car pool, 8:30 to 5:00, presently 3 guys & one gal. Ext. 2043.

Lost & Found

FOUND - Key labelled (bike) on pavement near Bell St. Call Cathy, Ext. 2398/2063.

FOUND - a plate, basket and two charms at the Cooking Exchange. Contact Ruth, 928-8465.

Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by the *Bulletin*.

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

FIRESIDE CHIMNEY SWEEPS - all types of flues. Special summer employee discount. $10 off for June and July 1981. Bill, 584-6425.

DOG OBEDIENCE CLASSES - start June 9, six (6) weeks. $45 fee. Pet Behavior Consultants. Shirley, 399-3882.

BABYSITTER - mother of 3 yr. old will babysit in my home. Shirley area. Mary, 399-6128.

LIMO SERVICE - luxury chauffeur driven for proms, and weddings. Roy, Ext. 4664 or 744-8779.

HOUSE SITTERS - have your house cared for by reliable sitters over August. Ext. 4444.

CHARTER BOAT - sharks and blues, Bay and Ocean fishing, Center Moriches, N.Y. 924-4541.

PROFESSIONAL TYPING - 14 yrs. experience in typing Technical and Legal documents. 90 words per min. 878-0074 after 6 p.m.

BABYSITTER - Patchogue/Medford area, 16 yrs. old, your home. Robin, 475-5591.

TREE SPRAYING - gypsy moths, ticks, tent caterpillars, etc. Enjoy your yard this summer. Call Kevin anytime, 399-1002.

HOUSE SITTING - FREE, experienced, reliable, caring. Any duration. J. Allentuck, Ext. 2412.

BABYSITTING - Mother will babysit, teenage daughter at home. Shirley area, good references. Gloria, 281-1795.

CARPETS INSTALLED - quick dependable service, free estimates. Jim, 821-0187 after 5 p.m.

PROFESSIONAL TYPING - Debbie, 727-5475.

WELDING - portable arc and gas brazing, soldering. No job too small. Bob, 878-4556 after 6.

AUTO REFINISHING - all areas of body work performed. Reasonable rates. Bob, 744-4047.

SIGHT SEEING FLIGHTS - aerial photogr., Long Island, Conn., New York, modern all weather aircraft. 929-6148 day or eves.

HOUSE PAINTING - int/ext., professional, quality materials, insured. Bob, 289-7657 after 6 p.m.

LAWN MAINTENANCE - reasonable rates. 281-3988.

ORGANIST - for in house weddings. Roy, Ext. 4664 or 744-8779.

BATON LESSONS - join Marie's majorettes, East Patchogue, 8 wk. summer program. Including parades. Marie Natoli, 286-0211.

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

BABYSITTER - Mother of 3 will babysit in my home in Shirley/Mastic area. Reliable. 399-4590.

OIL BURNER CLEANING - and service. Reasonable. 399-4988 after 6 p.m.

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.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.