BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Congressional Aide Visits BNL

David McCarthy, a staff specialist on energy matters in Congressman John Myers' office, visited the Lab on August 28 for a briefing of BNL's research and a look at Project ISABELLE, the HFBR and the NSLS. Mr McCarthy came to Brookhaven on behalf of Congressman Myers (R-Ind.) who is the ranking minority member of the Energy and Natural Resources Subcommittee of the House Appropriations Committee. On the ISABELLE magnet floor, Julius Spiro shows McCarthy the magnet fabrication facilities.

—photo by Humphrey

Holding On To History

If you can visualize the amount of paper work that can accumulate in a growing organization over more than 30 years, then you can also appreciate the scope of the project facing science historian Allan Needell when he first came to BNL in 1977.

During a ten-month pilot study funded by the American Institute of Physics, Needell pored over thousands of documents, assessing the Lab's archival needs. In January 1980, with AIP funding for one more year, he returned to finish his work and make suggestions to assure its continuance when his term was completed.

Needell's main suggestion was that a History Committee be formed to evaluate his results and make recommendations for the future. Eight people were appointed to this committee in April 1980. According to retiree John Binnington, committee chairman and former head of the Research Library, everyone agreed that "this material was of a scholarly, scientific nature and should be under the jurisdiction of the person responsible for the Lab's other scientific literature."

Acting on that premise, the History Committee recently made three recommendations, aimed at initiating an ongoing archival program for BNL. The recommendations, which were all approved, were to place the program under the supervision of the head of the Technical Information Division (TID); to use the Research Library as a central location for historical papers; and to develop future archival programs through the joint efforts of the History Committee and the head of the TID.

Head of the TID, which includes the Research Library, is Mary Winkels, who has primary responsibility for carrying out most of the recommendations. Accordingly, all historical dministrative materials have been located in the Research Library. The 27 boxes containing this data will be situated in the library in a newly-created archival room. Among other papers these include files from all BNL Directors, the AUI office, and various internal committees. Papers from the Physics, Accelerator and Reactor Departments are tagged and accessible within those departments where area secretaries are responsible for keeping archives up to date.

Under the terms of the recently released archival policy statement, "Collections designated by BNL as archives will be available under controlled conditions for use by interested parties of the BNL community, visiting scientists, and/or other scholars desiring their use for purposes of furthering research and/or enhancing the existing literature."

People interested in using the archives should speak to the librarian at the main desk of the Research Library. Upon presentation of acceptable identification or introduction by a BNL staff member, the researcher will be ushered to the archival room. There, scholars can either peruse the administrative records or use indexes to locate materials stored in individual departments or the Records Holding Area. Rules forbidding carrying cases in the archival room or the use of any writing implements other than pencils are intended to preserve the existence and condition of historical documents.

In the future, Binnington says, files on the balance of the Lab's research departments will also come under the History Committee's scrutiny. Looking even further ahead, he said, "I would like to see the Lab with a permanent historian or archivist, someone who could organize departmental files and collect the papers of BNL's eminent scientists. Also, while we already have information about the Lab's major projects in our archives, it would be very helpful if someone could use that data to write concise histories of those projects."

Other members of the History Committee are R.C. Anderson, assistant director; John Blewett, senior physicist emeritus; Victor Bond, associate director; Richard Powell, former Reactor Division head; Nicholas Samios, deputy director; Lyle Smith, senior physicist; and William Webster, manager, Staff Services Division.

The Cancer Problem: A New Approach

British scientist John Cairns has had an abiding interest in the problem of cancer. Expert in molecular and cellular biology, as well as in genetics, he has developed a new hypothesis that challenges the widely held belief that cancer is mostly caused by exposure to deleterious chemicals in the environment. Cairns' thesis is that rearrangement of DNA by transposition is the more likely reason for the appearance of cancer.

In the 25th AUI Distinguished Lecture, "The Present Status of the Cancer Problem," he is expected to summarize the arguments for his point of view. He will speak in Berkner Hall, Thursday, September 17, at 8 p.m. The lecture is open to the public.

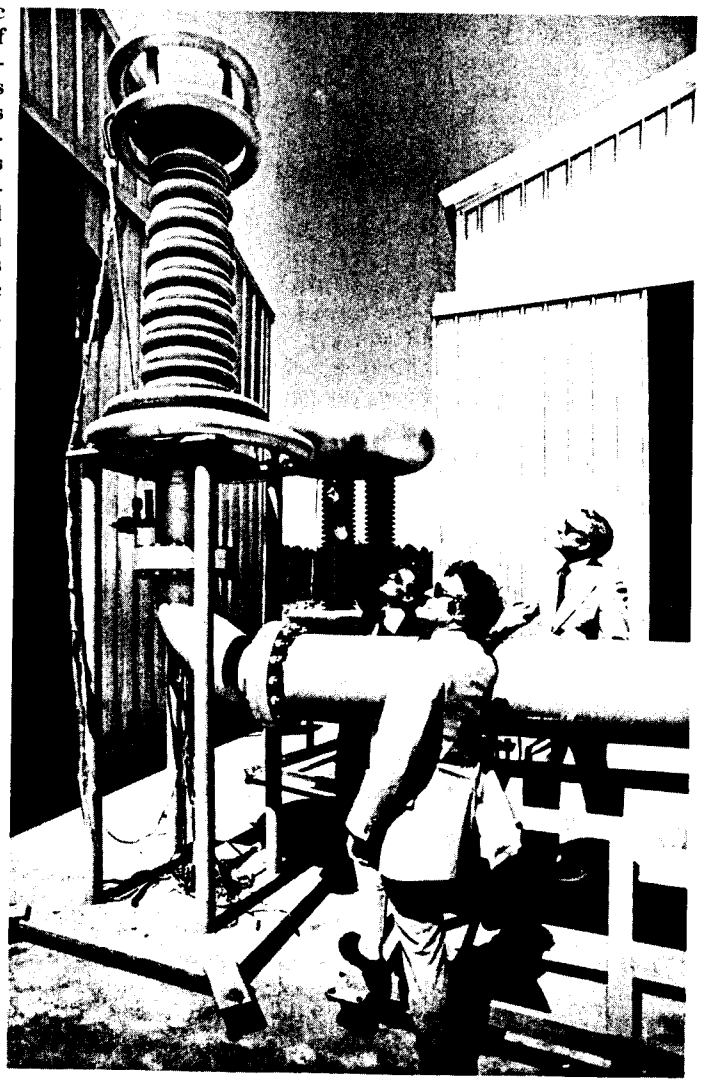
BNL's Jane Setlow is a Sr. Geneticist and a member of the Pegram Lectureship Committee. She is familiar with Cairns' work and says that "in 1963, working in Australia, he showed by autoradiography in a now classic paper that the DNA of the bacterium *Escherichia coli* is a circle and replicates as a circle. Six years later the scientific world was startled to learn from Cairns, then at the Cold Spring Harbor Laboratory, that the enzyme supposed to be responsible for replication of the *E. coli* chromosome could be missing, but the cell still was able to replicate. What has come to be known as the "Cairns mutant" was deficient in this enzyme. The mutant has made it possible for biochemists to islolate two other *E. coli* enzymes that can replicate DNA, and thus to understand a great deal more about how the cells reproduce themselves and also how they repair their DNA when it has been damaged.

"Four years ago an important discovery was made in Cairns' laboratory at Mill Hill in England of a new type of repair of DNA damaged by alkylating agents. Cells exposed to sublethal levels of such compounds were shown to exhibit an adaptive response, recently found to be caused by increased production of an enzyme that transfers the damage away from the DNA."

John Cairns

Professor Cairns is now at the Department of Microbiology, Harvard School of Public Health. Before coming to Harvard in 1980, he was for seven years head of the Mill Hill Laboratories, Imperial Cancer Research Fund, England. During a 10-year affiliation with the Cold Spring Harbor Laboratory, he served as its director from 1963 to 1968. Cairns was a staff member of Australian National University from 1955 to 1963 and of the Virus Research Institute, Entebbe, Uganda from 1952 to 1954. He holds M.D. and D.M. degrees from Oxford University, and has authored over 50 papers.

Power Transmission Readies For Switch-On



From left, Eric Forsyth, head of Advanced Technology Applications Division in BNL's Accelerator Department, describes high voltage equipment to Russell Eaton and Kenneth Klein, from DOE's Office of Electric Energy Systems. Eaton and Klein were at the 5th Avenue test site for a DOE review of the Superconducting Power Transmission Project. The project is now in the final phases of testing before demonstrating power delivery at the 1,000 MVA level, the project's ultimate goal.

—photo by Humphrey

Doug Humphrey

Dinah receives an appreciative pat from Jayne Fuhrman. While Fuhrman works as receptionist in Medical, the guide dog lies behind the work station, patiently waiting until she's needed.

Doug Humphrey

Maria Licata shares her office in Administrative Systems and Data Processing with her guide dog Quella. Quella appears interested in the program on which Licata is currently working.

Blind Women Look At Life

The expression "A man's best friend is his dog" is truer for some than for others. For two women who work at BNL, it is especially true, for without their dogs, they would be lost.

Jayne Fuhrman, a receptionist in Medical, and Maria Licata, a programmer in Administrative Systems and Data Processing, rely on their dogs to see. But being blind has not kept either from marriage, getting a job, or leading a normal, active life.

Fuhrman, who has been blind since birth, came to BNL in 1976. "That was a big year for me," she said "because it was my first full-time job." She got the job throught the State Commission for the Blind following a two-year search. "It's hard for the blind to get jobs," she said. "A lot of people don't know that we're just as capable as sighted people — there's a lot of discrimination."

Licata chose to do her own job hunting because she had no success with an agency. "I can present myself better alone because I know what I can and cannot do," Licata said. She lost her vision seven years ago through an inherited disease and has been with BNL for one-and-a-half years.

To make their jobs easier, each of the women use sophisticated technical equipment. Fuhrman uses a machine that has a memory enabling it to type without paper. It actually has a voice of its own. "I can listen to it and correct mistakes," she said. "Once I've got it perfectly, I can record it onto a computer card and then type it out." Furhman types medical reports, answers the phone, and uses the paging system.

Licata uses a computer terminal supplied by the State Commission for the Blind. It is similar to a CRT but its output is produced in Braille rather than on a video screen. She is eagerly awaiting a more sophisticated machine which is also modified to speak. Licata graduated with honors from the State University at Farmingdale where she earned a degree in computer science.

Licata and Fuhrman find the people they work with very helpful, but in general, ignorance still abounds. "People have such terrible misconceptions about the blind," Licata said. "It's almost like we have a disease." Fuhrman's opinion is that "If you have any kind of handicap and you accept it, other people will too." Both agree, the most important thing to remember when dealing with a blind person is to be yourself.

When not in familiar surroundings, life can be challenging for them. For instance, getting around the Lab site is fairly easy, but cars are a threat where sidewalks don't exist. "Most people think Manhattan is a horrible place," Licata said. "But the city is easy to get around in because of the sidewalks. The ugly stuff is not visible to me."

Shopping can also present problems. Fuhrman does her grocery shopping by giving someone a list or by going with a friend. But Licata said most strangers cannot be trusted. "It's one thing to have people give you directions," she said "and another to have people give you change." Licata handles this problem by paying for items in small bills.

Licata has even been asked (and not always politely) to leave restaurants or stores because of her Black Labrador, Quella. Though the law allows guide dogs in public places, she has had the police called on her several times. "When my husband and I first met, he'd say people really aren't that bad. Now he's prepared for this to happen whenever we go out," she said.

When she met her husband, Licata was at a religious gathering. "We were facing each other and I was unknowingly looking in his direction," she said. "He kept thinking I had picked him out in a crowd." Later, he approached Licata and started a conversation about her dog, and two months later they were married. "To this day he insists I was looking at him and smiling the whole time," she added.

Fuhrman met her husband of four years at a camp for the blind. He too is blind and also has a hearing problem. She is helping him apply to schools so he can prepare to be a counselor for the deaf.

The attitude of Fuhrman and Licata is optimistic and both enjoy a myriad of leisure activities. Fuhrman plays guitar, keeps in touch with many pen pals, and loves to read. "Most of the things I can't do, I don't know if I'd want to do anyway," she said.

Licata, who has the advantage of having known sight, said she can do anything everyone else does. Her handicap has even helped her in horseback riding because she has a feel for and a natural trust in the horse. "Anyway, I have no choice in the matter," she said, laughing.

Licata also rollerskates with her stepdaughter. "I like to spend time teaching her about the blind because there's such an information gap," she said. "Besides, an educated child is an educated adult and we need more of them around."

—Myra Aronson

WANTED Puppy Walkers

The Guide Dog Foundation for the Blind, Inc., of Smithtown, New York, is looking for people who would like to become puppy walkers this fall. A puppy walker is a volunteer who raises a pup at home for one year. At the end of that time, the puppy is returned to the Guide Dog Foundation. After a three-month training period, the puppy becomes the permanent companion of a blind person.

For more information about how to become a puppy walker, call Emily Biegel at 265-2121.

Reports Available

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call Ext. 5068.

NUREG/CR-1497
NUREG-51192
Radioactive Materials Released from Nuclear Power Plants. J. Tichler, C. Benkovitz

BNL 51242
Direct Efficiency Measurement and Characterization of Residential Heating Equipment. Annual Report Fiscal Year 1979. R.F. Krajewski, R.J. McDonald and J.S. Milau

NUREG/CR-1954
NUREG-51295
Recommendations for Portable Supplemental Meteorological Instrumentation for Incident Response. R.M. Brown, J.L. Tichler

BNL 51301
An Analysis of the NAFA Fleet Data Base: Passenger Cars Only. D. Shonka

NUREG/CR-1916
NUREG-51338
A Risk Comparison. A. Coppola, R.E. Hall

NUREG/CR-1938
NUREG-5134
Reduction of Structural Degrees of Freedom. C.A. Miller

BNL 51342
Recharge Forest Revisited: Soils of Brookhaven National Laboratory. J. Grafton

NUREG/CR-1958
NUREG-51347
Evaluation of Multiparameter Eddy Current Technology for Inspection of Steam Generator Tubing. S.D. Brown

NUREG/CR-1959
NUREG-51348
Advanced Reactor Safety Research Division. Quarterly Progress Report Oct. 1 — Dec. 31, 1980. A.J. Romano

NUREG/CR-1960
NUREG-51349
Water Reactor Safety Research Division. Quarterly Progress Report Oct. 1 — Dec. 31, 1980. A.J. Romano

BNL 51352
Flash Hydropyrolysis of Coal. Quarterly Report No. 13 Apr. 1 — Sept. 30, 1980. M. Steinberg, P. Fallon, B.L. Bhatt

BNL 51353
Polysulfones for Conservation in the Ethylene Polymer Industry. Final Progress Report No. 9 July — Sept. 1980. M. Steinberg, H.J. Yoo, D. Elling, P. Bernstein, A.E. Varker

NCS-51354
Compilation of Requests for Nuclear Data. National Nuclear Data Center

NUREG/CR-1980
NUREG-51357
Dynamic Analysis of Piping Using the Structural Overlap Method. J. Curreri, P. Bezler, M. Hartzman.

NCS-51360
Evaluation of ^{232}Th for ENDF/B-V. M.R. Bhat

Tour Season Ends With Full House

Despite the abbreviation of the 1981 Summer Tour Program to only eight Sundays, 6137 people visited Brookhaven between July 12 and August 30.

Attendance for the first seven Sundays ranged from 455 to 1047. The last Sunday was the only day this year that the Brookhaven House is scheduled to be open to the public, a fact that caused attendance to soar to 1645. In addition to the 37 busloads of people who viewed the passive solar home that day, the tour program conducted 20 Exhibit Center tours - twice as many as the average for one day.

Greeting the public throughout the summer were Janet Tempel, tour program coordinator; Jackie Mirzadeh, tour program assistant; and tour guides Ellen Anderson, Joyce Bertwell, Penny Byrne, Chris Escobar, Maria Gracia Pellegrini, Shelley Pick, Alice Kluber, Trisha Iwantshuck, and Patrick Wyant. To accommodate the crowds last Sunday, the program received assistance from Eloise Gmur, Ellen Kelsch, and David Lieberman.

Arrivals & Departures

Arrivals

Adrian T. Aerts ..... Physics
David L. Alexoff ..... Chemistry
Kenneth B. Dobreuenaski ..... Accel.
Dean B. Ince ..... Accelerator
William J. Marciano ..... Physics
Masanori Okawa ..... Physics
Richard J. Rossetti .. Saf. & Env. Prot.
Muthu S. Sundaram .... Energy & Env.
Eric C. Svensson ..... Physics
Kenneth W. Vitkun ..... Accelerator

Departures

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

Arthur R. Blummert ..... Accelerator
Stephen J. Hannon ..... Medical
Jack E. Jensen ..... Accelerator
Peter T. Kleeman ..... Energy & Env.
Thomas S. Luhman .... Energy & Env.
Norman S. Mc Intyre .... Nuc. Energy
James M. Meier ..... Accelerator
Nancy K. Meier ..... Contr. & Proc.
Frances E. Nusz ..... Supply & Mat.
Ann P. Porteous ..... Saf. & Env. Prot.
George Privitera ..... Accelerator
George F. Reiter ..... Accelerator
Charles Schmidt ..... Accelerator
Philippe G. Tardieu ..... Accelerator
Roy N. West ..... Physics

Labor Day Food Service

At the Cafeteria, the snack bar will be open from 9 a.m. to 2 p.m. daily on Saturday, Sunday and Monday, September 5, 6 and 7.

The Tap Room at the Brookhaven Center Club will be closed on Saturday and Sunday, reopening at 5 p.m. on Monday, September 7.

The Vended Food Service in Building 912 will be in operation throughout the Labor Day weekend.

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NYC Train Trip

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, September 16. Departure is at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $3.50, 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, September 10. 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.

Bicycle Tours

The Hi-Point Hundred will be held Sunday, September 20, starting at 7 a.m. at Staller Office Park, 1455 Veterans Memorial Highway. This is Long Island's most difficult 100-mile ride. For those who want something less challenging, 75- and 50-mile rides are available. Send $5.00 registration fee to Paumonok Bicycle Clubs, Inc., P.O. Box 7141, Hicksville, NY. 11802.

The March of Dimes is sponsoring a 50-mile fund raising tour to Jones Beach on Saturday, October 3. Advance registration fee is $5.00. For forms contact Gerry Morgan, Ext. 4841.

Children's Tennis

Over 30 children participated in this summer's Youth Tennis Clinic. Under the direction of Coach John Ingoglia, the kids learned basic skills, strategies and scoring. They then competed in a singles tournament according to ability levels. Tournament winners were:

Beginners

1st — Peter Shiue; 2nd — Edward Byrne; 3rd — Yuri Miyachi

Intermediates

1st — Richard DuBois; 2nd — Russell Mills; 3rd — David Hainford

Advanced

1st — Steven Monna; 2nd — John Sondericker; 3rd — Leo Chiang

Afro-American Club

All BNL employees and their friends are invited to participate with members of the Afro-American Culture Club in the New Harlem Ten Kilometer (6.2 miles) Foot Race on Sunday morning, September 20, in Harlem. All ages are eligible.

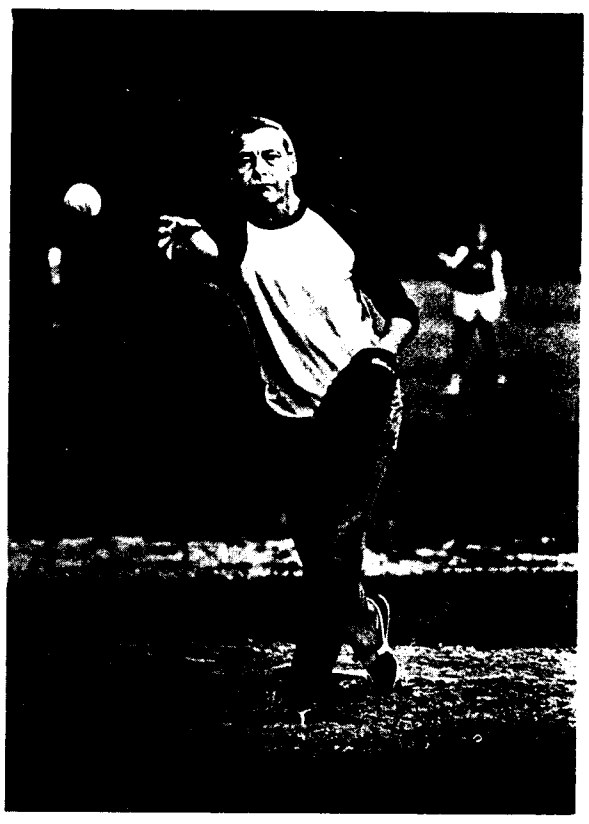
Please phone Berthel Becton, Ext. 4432, for details and entry forms.

Bowling

Bowling will begin for the Shirley league on Thursday, September 10, and for the Port Jefferson leagues on Tuesday, September 15.

Alex Reben

Anne Marie Origlio gets ready for the catch.



Alex Reben

Bob Jones lets go a slow pitch.

Softball A Hit With BNL Batters

As the 1981 softball season draws to a close, how many players are aware that softball is a 35-year old tradition at BNL, dating back to the summer of 1947? Bob Jones is one active ballplayer who remembers the sport's early days here. Having pitched every year since 1952, Jones is now concluding his 30th season of BNL softball.

Most of the time Jones, a technical associate in Metallurgy, has played with his department's team, now dubbed ROGA. For the last two years, he has also played on a mixed league team, Source III.

Originally, the Lab's six men's teams played fast pitch softball, where pitchers dominated and batters averaged only one or two hits a game. This kind of softball usually attracted a small group of good players who were very competitive. To increase employee participation, the BNL Softball Committee, which Jones then chaired, switched to slow pitch softball in the early sixties.

"A lot of us, including myself, were reluctant to change," Jones admits, "mostly because things like bunting and stealing were eliminated. But, since almost anybody can hit the ball in slow pitch, the move had exactly the results that the Committee wanted. We immediately went to 18 teams."

With this extra activity, the two original ball fields — one by the main gate on Princeton Avenue and one off Upton Road by the Carpenter's Shop — soon became inadequate. By 1968, the Brookhaven Employees Recreation Park offered four new softball fields and the old ones were retired.

Two additional fields made it possible for BERA to officially sanction a fourth softball league. In 1972, the University League — the Lab's first mixed league — joined the Brookhaven, National, and Laboratory men's leagues already in existence.

A second mixed league was added in 1976. The leagues, which then totalled 22 teams, were simply retitled I, II, III, IV, and V. In 1980, two more softball fields opened on Brookhaven Avenue, allowing the leagues to expand again. Now, 37 teams consisting of more than 500 BNL employees compete for five league titles. As the leagues have grown, so has the task of coordinating their activities. For the past few years, the Committee responsible for this effort has been chaired by Charles Bohnenblusch.

Jones' fondest memories, however, have little to do with rules and fields. Mostly, he remembers the people with whom he has played. For example, he recalls that, "We had eight guys named Bob on one of our early teams. If someone hit a fly ball, and someone else yelled 'Bob, take it!', we ran into a lot of trouble!"

It's not uncommon for Lab softball players to come from other lands. Sometimes, Jones says, "they're learning the game and language simultaneously, and that can cause some interesting plays." Other times, they may confuse softball rules with those of games popular in their own countries. Jones tells the story of a teammate who was a good cricket player. "After he hit the ball, he ran to first base. Then he turned right around and came home again."

Jones thinks that people are what softball at BNL is all about, and he's happiest when playing with other people for whom winning is not everything — who play primarily to enjoy themselves. "That's why I still play," he says, "I still think it's fun."

— Anita Cohen

Scores for week of August 24:

League I

All games were double headers.

First game:

Blue Jays 12 - Ravens 9

Very important game because it affected the final standings of League I. By winning this game the Blue Jays became League champs. George Oldham was superstar for the game with 4 for 4 at the plate and 6 RBI's. Bob Barone was 3 for 3 for the Ravens.

Phoubars 17 - Source I 5

Second game:

Blue Jays vs. Ravens

Game unnecessary - not played.

Phoubars 13 - Source I 2

Final Standings	Wins	Losses
Blue Jays	12	3
Ravens	10	5
Phoubars	10	6
Six Pax	6	10
Source I	1	15

League II

Roga 10 - Big Sticks 7
DEEgenerates 16 - AMD Bombers 15
Moles 13 - Cardinals 3

League III

Ice Pops 25 - Binary Bombers 12
Dirty Sox 10 - Medical 1
Magnuts 19 - Nuke Powers 12
Electric Co. 17 - The Forties 13
Lights Out - bye

League IV

Playoff Games:

Survivors 13 - Turkeys 8
E-Z Riders 8 - TNT 6

Congratulations to the Survivors - League Champions

League V

Mole-Esters 14 - Underalls 13

Down by 5 runs in the bottom of the 7th, the Mole-esters came back to win with a great rally along with a triple by Jayne Cutts and a home run by Dave Comstock.

Mudville Sluggers 16 - Source III 8
Who's On First 14 - No Feedback 11

Spectacular catches by catcher Michelle Rabitin and 3rd basewoman, Betsy Cuthbert.

Who Cares 19 - Solar Power 1
Mole-Esters 15 - Who Cares 14
Who's On First 13 - Solar Power 11
No Names 19 - No Feedback 2
Underalls 12 - Mudville Sluggers 5

Makeup games:

No Names (won) - Solar Power (forfeit)
Source III 6 - Who Cares 5

Congratulations to the No Names who are now winners of the first half.

Cafeteria Menu

Week Ending, September 11, 1981

Monday, September 7		
Snack-Bar Service		
9 a.m. - 2 p.m.		
Tuesday, September 8		
Cream of cauliflower	(cup)	.55
	(bowl)	.65
Shrimp sukiyaki over rice		1.65
Beef hash & 1 veg.		1.55
Hot Deli - Veal pattie & pepper hero		1.60
Wednesday, September 9		
Split pea soup	(cup)	.55
	(bowl)	.65
Meatloaf & 1 veg.		1.55
Spaghetti & meatballs		1.55
Hot Deli - Clam boat		1.70
Thursday, September 10		
Beef barley soup	(cup)	.55
	(bowl)	.65
Meatcakes & onions w/1 veg.		1.60
Barbecued chicken w/1 veg.		1.55
Hot Deli - Roast beef	(bread)	1.65
	(roll)	1.75
Friday, September 11		
Clam & celery soup	(cup)	.60
	(bowl)	.70
Tuna noodle casserole		1.60
Beef chili over rice		1.55
Hot Deli - Breaded fish fillet hero		1.65

Rifle & Pistol Club

Congratulations to the BNL rifle and pistol teams for their outstanding showing in the recently completed postal matches sponsored by the National Industrial Recreation Association and the National Rifle Association. Rifle teams One and Two placed 1st and 2nd regionally, and 6th and 14th nationally. Ron Lucas was 3rd regional winner in the individual rifle match. The pistol team ranked 25th nationally, and Otto Jacobi placed 2nd regionally in the individual pistol match.

For those interested in trap shooting on Tuesdays at 5:15 p.m., contact Vincent Lettieri, Ext. 4092, or Otto Jacobi, Ext. 4406. The pistol team shoots on Wednesday, at 5:15 p.m. For more information call Nick Houvener, Ext. 4068, or Otto Jacobi.

The next meeting of the Rifle and Pistol Club will be held on Wednesday, September 9, at 5:15 p.m. in the conference room of Building 490. New members are welcome to join the reguars.

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 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 non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, 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.

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

1622. TECHNICAL POSITION - Requires experience in installation and monitoring of underground piping and interconnection with aboveground equipment, ability to work with a minimum of supervision, and experience in experimentation and data collection desirable. Experience in refrigeration technology, including assembly and checkout of heat pump modules from basic components. To assist in the development of heat-pump and heat-transfer equipment for solar and ground-coupled application. Department of Energy and Environment.

1623. TECHNICAL POSITION - Requires AAS or equivalent in electronic technology. Must have strong background in both analog and digital and some experience in prototype construction and debugging. Will primarily trouble-shoot; also some maintenance on various analog and digital equipment. Accelerator Department.

1624. KEYPUNCH OPERATOR - (Part-time) - Requires working knowledge of keypunch operations and availability to work evening hours. Will punch and verify data cards using IBM 029 and IBM 129 equipment. Administrative Systems and Data Processing.

1625. CHEMISTRY ASSOCIATE - Requires a BS in chemistry or a related field. Knowledge of chemistry laboratory procedures and standard analytical instrumentation is required. Will work in a program that will evaluate tests to measure bio-degradation and radiation damage to inorganic ion-exchange resins. Department of Nuclear Energy.

1626. STEAMFITTER A - Requires demonstrated experience in a commercial/industrial plant environment. Under minimum supervision lays out, constructs or installs, repairs and maintains heat, steam and water distribution systems, related facilities and auxiliary equipment, piping and equipment utilizing heat, steam and water distribution systems. Plant Engineering Division.

Autos & Auto Supplies

70 VW BUG - 45,000 orig. mi., excel cond, snow tires w/wheels. $1,850. Ext. 3711 or 728-2468 eves.

73 SUPER JEEP - for parts, Ford motor parts. Rich, 585-0025 after 6 p.m.

75 FIAT 128 - 4 dr, sedan, 3 spd trans, good cond. $1,200. 369-1624.

'72-'73 CAPRI HOOD - reasonable. Ext. 2311 or 567-5131.

68 BUICK SKYLARK - custom 350 engine, a/t, new battery. Must see. 475-8154.

72 BUICK SKYLARK - 350 V8, a/t, p/s, p/b, a/c, excel mechanical cond, high mi. $650. Al, Ext. 4473.

66 BSA MOTORCYCLE - 441cc, good rubber, runs great, looks good. $400. 475-2657 before 2 p.m.

74 BUICK REGAL - am/fm, a/c, a/t, p/s, p/b, clean, good running cond, 8 cyl. $1,200. Ext. 4725.

71 PONTIAC GT-37 - 3 spd, new black paint, 350 cu. in, stereo, new tires, brakes, exhaust, battery. $3,500. Ext. 4028.

74 CHEVY - Impala, 4 dr. sedan, 350 V8, 85 K mi, a/c, p/s, p/b, excel cond. Asking $1,400. Itaru, Ext. 4530.

70 CHEVY - Sta. wgn, 96,000 mi, very good cond, good mi. $800. Ext. 3701 or 751-8128 eves.

ENGINE - Chevy 350 complete motor, 4 barrel, electronic ignition, 4 bolt main stock. Lou, Ext. 4087.

CHEVETTE SCOOTER - red, 1978. $2,000. 288-1601 days, 283-6437 eves.

68 CHEVY - Sta. wgn, p/s, p/b, a/c, new battery, good tires, dependable. $400. Ext. 2698 or 928-5796.

CUSTOM PARTS - accessories, performance for your vehicle, low prices. Name brands. Hans, 281-5563 or Ext. 4581.

73 VEGA GT DRIVETRAIN - engine, trans, rear-end, front end; 1966 Bronco engine, transfer case. 744-3968 after 4 p.m.

74 HONDA CB360 - 3K on rebuilt engine, many extras, excel cond, garaged. $850. Pete, Ext. 4612.

78 SUZUKI - 1000E, 12,000 mi, mint cond. $2,500. E. Edwards, Ext. 4027 or 286-1121.

AUTOMOTIVE - Marine batteries, Gould, full guarantee, for all makes & models. Medina, Ext. 7636 or 924-6971.

JEEP RIMS - $5. ea. 981-5993.

75 VEGA - new battery, brakes, timing belt, am/fm radio, no rot. $1,200. Artie, Ext. 2697 or 325-0743.

PARTS - Chevy 350 Turbohydramatic transmission. Jack, Ext. 4087.

75 FORD - custom 500, 4 dr, p/s, p/b, a/c, new spare tire, new distributor, excel cond. in/out. $1,450. Katsuo, Ext. 2432 or 3136.

48 BUICK - super nice; 1956 Hudson Wasp, clean; 1960 Studebaker Lark, low mi. 281-8031.

2 CYCLE OIL - Kendall GT1 Special 24 qts. $16. Frank Rumph, Ext. 4581 or 588-3565.

TRUCK CAMPER - 11½ ft. self contained, $1,700. Dee, Ext. 3675 or 286-8909 after 5:30 p.m.

80 MAZDA RX7 - sunroof, 5 spd, low mi., mint cond. $8,500. Ext. 2408 or 689-9310 after 6 p.m.

TIRE - 8.25x14 on 5 hole rim, good tread, $10. John, Ext. 3675.

72 FORD LTD - good cond, new muffler, 73,000 xorig. miles. $1,050. 878-1920.

67 BUICK ELECTRA 225 - good running, good body, excel int, 4 extra tires incl. $350. Ext. 4107.

74 DODGE MONACO - excel cond, p/s, p/b, steel belted radial tires, very reliable. $850. Ext. 4826/3183.

79 HONDA MOTORCYCLE XR80 - clean, good cond. John, 929-8287.

71 PONTIAC LEMANS - good cond. Yona, Ext. 3403 daytime or Ext. 3245 eves & wkends.

73 CHEVY PICKUP - needs some body work. $500. Artie, Ext. 2697.

79 FORD FAIRMONT - 6 cyl, 4 dr, a/t, a/c, p/s, am/fm, good MPG. $3,600. Terry, 499-8377.

TIRES - (2) General 195/75R14 steel radial w/w, $10. ea. good cond. 751-5539.

69 VOLVO WAGON - a/t, California car, new radials, battery, & tie rods. $1,000. or best offer. 928-6654 or Ext. 2368.

78 MOTORCYCLE GL1000 - Gold Wing Honda, 4,000 mi., like new. $2,600. 473-8783.

76 BROUGHAM VAN - sleeps 4, fully equipped, galley, furnace, enclosed toilet, full headroom, many extras. 286-1192.

73 BUICK LESABRE - 4 dr, a/c, p/s, p/b, am, v.g. cond., excel. tires. $850. 289-1883.

78 HONDA TWINSTAR - 7,000 mi, $625. 728-3874 eves & wkends.

HONDA CB125 - clean, excel cond, 85 + mpg, windshield, luggage rack. $500. Jack, Ext. 4411 or 929-8287.

CAMPER - Tag-along, 15', sleeps 6, self-contained. $995. 744-9617 anytime.

70 OLDSMOBILE - ninety-eight, excel body, needs trans. work, good tires. $200. Tom, 665-6959 after 6 p.m.

Boats & Marine Supplies

OUTBOARD MOTOR - 1½ HP Johnson, $75. G. Kinne, Ext. 4061.

WIND SURFING - complete. $695. Dinos, Ext. 4666 or 477-1783.

1980 CRUISER BEACHCOMBER - 150 HP Johnson outboard Cuddy Cabin, power trim/tilt, elec. horn & windshield wipers, port-a-potti, full canvas, EZ load trailer, 4900 lb. capacity, show room cond. $11,800. 981-5993.

18' GARVEY - w/1973 40 HP Johnson w/equipment, good cond. in water. $900. 286-1348.

16' LARSON - 65 HP, trailer, new top, steering, fuel tank, prop. mainly lake used. Asking $1,900. 475-3648.

'78 RENKEN - 19' bowrider, full canvas & equipment, 120 HP I/O engine, low hours, galvanized trailer; ELECTRIC MOTOR - 10 spd, forward/reverse, 10½ lb. thrust, used twice, $70; 12 volt battery, $15. 286-0353.

1975 SEAFARER - 22' sloop, Genoa, sleeps 4, fully equipped, excel cond. Ext. 4798 or 929-4940.

FLYING DUTCHMAN - hull needs work. $250. G. Kinne, Ext. 4061.

1967 FIBERGLASS BOAT - Mohawk, 17', & trailer. $500. 744-9617.

Yard Sales

YARD SALE - 42 Peeker Ave., Mastic Beach. Many items.

YARD SALE - Sat. Sept. 5, 10 to 4 p.m., 275 Wood Acres Rd., E. Patchogue. Books, tools, clothes, etc. 286-1098.

Free Items

CATS - 3 affectionate, neutered cats, black/white, gray/white & black. Kathy, Ext. 4615.

TV SETS - (2) ea; also 1 washing machine, all repairable. U-Haul take all or any one. Walt, 298-8601.

Miscellaneous

WHEEL CHAIR - Everest & Jennings, excel cond, $265; Caloric low-broil gas range, v.g. cond. $115. 286-1709.

DINETTE KITCHEN SET - table & 4 Captain chairs, good cond. 589-4363 after 6 p.m.

MOTOCROSS BOOTS - $30; helmet w/visor, $15; Kidney belt, $5; Scott mask, $10. Ask for Rich, 878-1580.

HEATHKIT — Electronic Junior kit, $25; Browning receiver, Garrard turntable, amplifier. Best offer. G. Kinne, Ext. 4061.

SCREEN HOUSE - 12 ft. dia., excel cond. $150. 265-0501 after 7 p.m.

CHANDELIERS - Deming water pump; holding tank & press. switch; 24'x4' round pool; buffet; vanity. Jake, Ext. 4532.

ELECTRIC TYPEWRITER - Brothers cassette, 'Correct-O-Riter', excel cond. $170. Ext. 2409 or 331-9733.

COUCH - 4 piece sectional, rust orange, Sears, new cost $400. Asking $250. or best offer. Rolf, Ext. 4238 or 286-2045 after 6 p.m.

STONE BASE - for wood stove, $10; wrought iron chandeliers, $7. Diane, 929-6748 or Ext. 4142.

FREEZER - 23 cu. ft. mint cond, used one season. $400. G. Ince, Ext. 3786 or 286-2889.

SOFAS - (2) 3 cushion sofas, reasonable. 475-8073.

GOLF CLUBS - men's woods only 1-3-4 + 5 Wilson 1200's. $100. 785-4078.

REFRIG - GE no frost, 18 cu. ft. avocado, side by side, 4 yrs. old, perfect, like new. Ext. 4959.

6' ELECTRIC PLOW - w/frame, $300. Bill S. Ext. 4434.

PANASONIC - fm/am stereo music center w/ speakers, phono. $100. 757-2760.

BOYS' PANTS - 12 slim, shirts, sport jacket, vest, all name brands in excel cond, $38. takes all; Boys size 5 pants, shirts, sweater & winter jacket, brand names all in good cond. $25. Takes all. Peggy, 727-4859.

AIR COND - GE 7500 BTU, excel cond, $100; louver doors 6'8"x12" ea. unstained. $15. 744-3792.

SEARS LEAF SHREDDER/BAGGER - 3.5 HP excel cond. $70. Jim, Ext. 2050.

PACHYSANDRA PLANTS - good ground cover, 50 plants. $5.50; 100 plants $9.50. 744-5448.

PAINT SPRAYER - and gun, used very little. A steal at $75. Ext. 5318.

DINING ROOM - china closet, buffet, table w/3 leafs & pads, 6 chairs. $400. 981-4419.

CONSOLE PIANO - and bench, beautiful pecan wood, excel cond. Cost $1600. Asking $950. 286-2221.

PLAYPEN - wood, good cond. Asking $20. Ext. 7927 or 878-2891 after 5:30 p.m.

16 MM SOUND PROJECTOR - 289-1085 after 6 p.m.

CRIB - good cond, $50; lawn mower, Toro 21", needs muffler, $25; old brass & iron andirons, $50; studio bed (makes into 2 singles) $75. Don, Ext. 2249.

EARLY AMERICAN - Patchwork design sofa, loveseat, chair, ottoman, pillows, need recovering. Ext. 3392 or 475-8330.

AMERICAN HOLLY - 4 ft. high, $3. ea; You dig; Alberta spruces, $20 ea; B&B 2 ft. high. John, 744-5867.

TV - color JC Penny solidstate, made in Japan, 19", 3.5 yr. $80; iron, $5. Katsuo, Ext. 2432.

RECORD COLLECTORS - 360 LP's & stereos, all original, some unopened, also 45's. 286-4697.

QUEEN SIZE BED - mattress, boxspring & stand, Chiropractor, almost new. $200. negotiable. 878-1135 anytime.

POODLE - standard white male, born Jan. 1981, good w/children. $25. Ext. 5152 or 281-2471.

FIREPLACE GLASS DOORS - 27"x34", $25; fireplace Hydrohearth, $50. Frank Rumph, Ext. 4581 or 588-3565.

BLANK TAPE CASSETTES - Quality C-90 ferrike CrOz & FeCr. $2.75 ea. Ext. 2521 or 928-8379 eves.

GLASS FIREPLACE DOORS - 28x38, $20; heater w/fan, $7.50; portable oven, $2.50; stroller, $2.50. John, Ext. 3675.

SOFA BED - brown plaid, full size, excel cond. $100. 732-3350.

COLLECTIBLES - 2 oriental watercolors by Bibi McManus, Oakdale artist & illustrator. Bamboo framed, lovely; antique handblown Italian vase, gold in glass, reputable appraiser appraised. $250. Sacrifice $100. Irene, 589-5126.

REINDEER SKIN - approx. 3'x5', best offer. Dennis, Ext. 4259 or 736-2534 after 6 p.m.

STUFFED CHAIR - Mediterranean, olive-green, $25; area rug w/pad, 12'x15', rust-orange, $40; folding-door, $10. Ext. 3521 or 286-1688.

TV - B&W, $65; sofa $25; mattress, $8; sleeping bag, $10; snow tires (pair) $20. ea. Ext. 3403.

1963 VINTAGE - Ampeg amplifier plus separate manning reverb unit, also vintage. Both units $195. Joe, 878-1688 eves.

FRENCH - horse back riding boots, size 8, black, worn twice, $25; horseback riding helmet, black velvet, size 6⅞ to 7⅛, worn twice. $25. 286-0353.

WASHING MACHINE - GE, good operation, needs transmission seal. $25. Morris, Ext. 2040.

HOT WATER BOILER - and burner, oil fired, used, good cond. $150. Nick, Ext. 3354 or 286-3791.

BATTERY - new 12 volt "Gel", rechargeable, for alarm systems, $20. list, $12. ea. Ext. 4058.

FENCE POSTS - 8 ft. 4x4, $4.25 ea; 1976 Kingston, Ex-Wide, custom, Horse trailer, excel cond. $2,700. 732-5445.

CEDAR CHEST - all cedar, needs refinishing outside, $25; Honda 70/trail bike, needs work, body great shape, $100. Ext. 2964.

YOUTH BED - could use a new mattress, makes into crib also, $15. 727-4859.

SEARS - 20 pt. dehumidifier, like new, $85; oak, 6 drawer, 5' contemp. desk, $60; Ponzell, small, commercial buffing machine. $35. 732-5445.

PROFESSIONAL - Gun Bluing System, new in crates, Pentrate 6 tank unit. $500. 289-8155 after 6 p.m.

POOL - 24'x4' round; chandeliers; Deming water pump w/30 gal tank press switch; buffet; medicine chests; bath vanity; headboards; brass twin size bedframe; kitchen set; lawn sweeper. Jake, Ext. 4532.

CANNING JARS - quarts, glass tops. Ext. 2950.

WOOL RUG - slate blue, 15'x15' w/pad, $125; wood panels for sliding glass doors, $50; washer & dryer, needs work. $40. John, Ext. 2667 or 924-8160.

FRENCH PROVINCIAL COUCH - end tables, china closet, antique coffee table, 2 blue chairs, Jacobian chair, 100 yrs. old. Pat, Ext. 4960.

CAMERA - 125X Keystone, used once, $10; Zenith B&W TV console, 19" screen, $55. Ron, 281-3149.

COUCH - w/matching chair, $300; small chair for child's room, $40; 2 maple rockers w/brocade cushions, $100; 1940's Zenith radio/phono, $50; maple bdrm set w/2 twin beds & beautyrest mattresses double dresser w/mirror & chest, $300; maple lady's writing desk, $175. Ext. 3908 or 585-4038.

GM RADIATOR - excel., $25. Saginaw, 4 sp. trans., $75. Panasonic home cassette deck. $50. 100A 2 pole fused switch, $15. Randy, Ext. 4636, 277-3451.

TV'S - two identical. For parts or make one working set. Cheap. Ext. 4475.

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

ROCKY POINT - 9 mi. from Lab. Corner house M/D, practically maintenance free, H.W. baseboard heat, many extras. Owner will hold mortgage. Low interest. No points. 744-2332 9 to 5 p.m.

RIVERHEAD AREA - Mobile home 10x50, 1 bdrm, stove/refrig, washer/dryer, tool shed, covered patio. Air cond. Ext. 3138.

ROCKY POINT - 2 bdrm house, fenced, alum. siding, awn. windows, 1 car garage. 744-9822 after 6 p.m.

SHOREHAM VILLAGE - custom ranch, 3 bdrms, 2 baths, fam. rm w/fp, d/r, l/r, gourmet kitchen, 2 car o/s garage, 0.8 acre, w/w throughout, new oil burner, good financing, walk to priv. beach, tennis, club. Ext. 3064 or 821-0890 after 5:30.

MANORVILLE - 3 bdrm ranch, 1 acre, country kit, full bsmt, 1½ baths, garage, all appliances, s/s, w/w. $43,000. Pete, Ext. 3868/4574 or 878-1225.

SHOREHAM SD - 3 bdrm cedarshake ranch, l/r, d/r, eik w/skylight, den, fireplace, w/w carpet, wood burning stove, oversized garage, full bsmt, laundry rm, ⅔ acre, fully landscaped, 16x32 deck, a/c, taxes $1,535, 9 yrs. old. $61,500. 744-0722.

WADING RIVER PROPERTY - one cleared & partially landscaped acre in prestigious area. Must sell. Asking $22,500. 929-4173 after 5 p.m.

SHOREHAM - 2 story, 4 bdrm Clarendon Colonial, 2 baths, l/r with fp, d/r, dinette, kitchen, & mudroom w/2 stall garage on .45 acre corner lot. Deeded beach rights. 744-2766.

For Rent

MASTIC BEACH - lovely 3 bdrm ranch in wooded area, ½ mile from Bay, near Smith Pt. $450/mo. + util. Ask for Pat, Ext. 7635.

PORT JEFF - studio apt, priv. entr, priv. bath. $250/mo. furnished, $225. unfurn. all util. incl. 473-7739.

BELLPORT - unfurn 1st floor apt. in 2-family house, 2 bdrm, l/r, gar, lg. yard. $460/mo., util. incl., lease. 286-8850.

REMSENBURG/W. HAMPTON - Oct. 1 - May 15, seluded barn, newly renovated, heavily insulated, new fp, coal/wood burn unit, elec. heat, 2 bdrms, 2 baths, l/r, d/r, dw, w/d, not suitable for sm. children. 288-1151.

Wanted

MAGAZINE DISPLAY RACKS - rotating commercial wire type. Ext. 4589 or 475-8581 eves.

VAN OR STATION WAGON - used, good cond, for visiting scientist & family; also canoe; wind surfer; TV set; stroller. Horst, Ext. 4502.

BOAT TRAILER TIRE - 4.80x4.0, 4 lugs. John, 744-5867.

BABYSITTER - my home, own transp, 3 days/wk, start Sept. 7. 473-0475 after 6:30 p.m.

BUSINESS ASSOCIATE - spare time opportunity, excel income tax advantage. Call 698-5861 after 7:30 p.m.

KITCHEN STOVE - bottled gas, 30" wide. Bernie, 325-1499.

CAR SEAT - 924-6139.

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

USED VAN - or bus, good cond, reasonable. Elaine, 286-9095 days.

WHEELS - (2) for Biltrite baby carriage. Dennis, Ext. 4259 or 736-2534 after 6 p.m.

USED BOOKCASES - fishing poles; & educational games to donate to youth program. Elaine, 286-9095 days.

FREEZER - 6 to 12 cu. ft. capacity. 286-4639 after 6 p.m.

LOOKING FOR TICKETS - to Alvin Ailey. One to four tickets. June, Ext. 2085.

Lost & Found

LOST - 8/29, on site, Casio Pocket Calculator, FX-7100, credit card sz. "H. Slatkin" scratched on front, sentimental value, $10 reward. D. Slatkin, Ext. 3185.

Car Pools

WEST ISLIP/BRIGHTWATERS - 2 man car pool seeking to expand. Bernie Manowitz, Ext. 3037.

SOUND BEACH/MILLER PLACE AREA - existing car pool needs more member. Ext. 4959.

FROM PATCHOGUE VIA BELLPORT - 9 yr. old car pool, on-time, has vacancy for paying rider starting 8/17. Alyce, Ext. 2901.

MASSAPEQUA/FARMINGDALE - Points West off Southern State Pkway. Plotkin, Ext. 4717.

Services

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

BABYSITTING - mother will care for your child, reliable, reasonable. Mastic area. Penny, 399-4590

FRESH CLAMS - any size by order only. $1.75/doz. Ken, Ext. 5042.

WISHING WELL - unbrella, bridal seat. For rent. All for $15. 475-0037.

SURFACE CLEANING - homes, boats, trailers, aluminum siding. Also rust proof metal surfaces. 399-1002 after 6 p.m.

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

RIDING LESSONS - beginners thru advanced, also dressage. Semi & private. $10/hr. Your home or in Yaphank. Renee, 924-6992.

SLOVAK FESTIVAL - Garden State Art Center, N.J., Sept. 13. Folk singing, dancing, food, paintings, wooden carvings, etc. 286-2151.

GET RID OF PESTS FAST - and make it last! Call Bert the Exterminator. 399-0523.

ABOVE/IN GROUND POOL INSTALLATIONS - and repairs, insured, licensed. Work Guaranteed. Pat, 363-2497.

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