BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Summer Student Special Edition

An Integral Part of the Team

"It's nice to be one of the gang," said summer student Kenneth Ritley. What he meant was he likes being an integral part of an experimental team.

Ritley has spent the past eight weeks in the Lab's Summer Student Program, constructing an ultrahigh vacuum system and an electronic data acquisition system in the Materials Sciences Building, 480.

"We're almost at the data-taking stage," said Ritley. He and four physicists in the Particle-Solid Interactions Group of the Physics Department will be using positrons — antiparticles of electrons — to study crystal surfaces.

"Many important things happen at crystal surfaces," said Ritley. "In solid state technology it's critical to know what goes on there."

The positrons, emitted by the decay of radioactive sodium in a sample chamber, will be electrostatically accelerated and magnetically focused to collide with the target — a crystal surface. "The particle interactions will tell us about the crystal structure at the surface," Ritley said.

Kenneth Ritley

Ritley, 22, received his bachelor's degree from Sonoma State University, California, last spring and will begin graduate work in physics at the University of Massachusetts-Amherst, in September.

Summer students Grace Manchise and Todd Leigh counting outgoing traffic on Rochester Street.

They Don't Play in Traffic

These two summer students aren't playing in traffic — they're working at counting cars.

Todd Leigh and Grace Manchise are studying traffic flow at BNL — to assess the need for new perimeter roads and traffic control. Under the Lab's Summer Student Program, they are working in the Facilities Planning Group in the Plant Engineering Division.

Using a device called an MR Traffic Counter, they are recording the number of incoming and outgoing vehicles during peak traffic periods — the beginning and end of the workday.

The record? About 2,739 vehicles passed through the Main Gate on Wednesday, July 13 between 8 and 9 a.m. "That's a record I think will stand," said Leigh.

In addition to the traffic study, Manchise and Leigh are working on a utilities study and a space management program for BNL buildings.

Manchise, a senior at Cornell University in Ithaca, New York, is studying industrial engineering. This fall, Leigh will begin the fourth year of a five-year physics and mechanical engineering program, run jointly by Hamilton College, Clinton, New York, and Washington University in St. Louis.

Both are from Suffolk County. Leigh lives in Amityville, while Manchise's home is Mastic Beach.

Their job perks include working outdoors and having a DOE car at their disposal on site. "The other summer students are envious," said Manchise. "They want to know, 'How'd they get a company car?' "

The stories for this Summer Student Special Edition were written by Alexandra Biesada and the photographs were taken by Roger Stoutenburgh.

51 Participate in 37th Year Of Summer Student Program

In 1952, when the first students participated in the BNL Summer Student Program, only 100 elements were known to exist, Watson and Crick were a year away from proposing the double helix and the existence of the quark would not be proposed for another 11 years.

Thirty-seven summers later, the understanding of DNA structure has made possible the technology of genetic engineering and scientists believe there may as many as six quarks and 114 elements — possibly more. And students still find plenty of fascinating research opportunities at BNL, in chemistry, biology, physics and other fields as well.

The Summer Student Program is the Laboratory's longest running formal summer program for students. "It has been around longer than I've been at the Lab," said Donald Metz, who heads the Office of Educational Programs, which administers the program. Metz came to BNL in 1954, two years after the program began.

This summer, the Summer Student Program is giving 51 college juniors and seniors the opportunity to collaborate with BNL scientists and staff for ten weeks. BNL is also hosting eight Summer Interns — college freshmen who participated in the High School Science Honors Program, sponsored by the Department of Energy (DOE), in 1987.

"Historically, it has proven to be a very beneficial program to the students," said Metz, of the Summer Student Program.

A study conducted last year by DOE found that a vast number of summer students have gone on to receive advanced degrees. "We can't claim credit for that," said Metz, "but it is a fact."

So this summer's students will take more than memories of one too many late-night trips to Pathmark. They'll leave BNL with practical research experience, new ideas and new knowledge of how science is done.

The Brightest Meet the Brightest

Fifty-two of the nation's brightest high school students spent the week experimenting with the world's brightest source of ultraviolet and x-ray radiation — BNL's National Synchrotron Light Source (NSLS).

BNL is one of six national laboratories hosting high school honor students for two weeks this summer, in the fourth annual Honors Research Program sponsored by the Department of Energy. In addition to one student from each state, the District of Columbia and Puerto Rico, the BNL program welcomed one student each from Canada, France, Italy, Japan, Mexico and West Germany.

The Bulletin caught up with the five students in the Zeta Group — one of ten experimental teams — this week at the Light Source.

From his perch, beam line U4 IR, high above the vacuum ultraviolet ring, Physicist Gwyn Williams led the group in an experiment to determine the transmission of polystyrene in the infrared region of the electromagnetic spectrum.

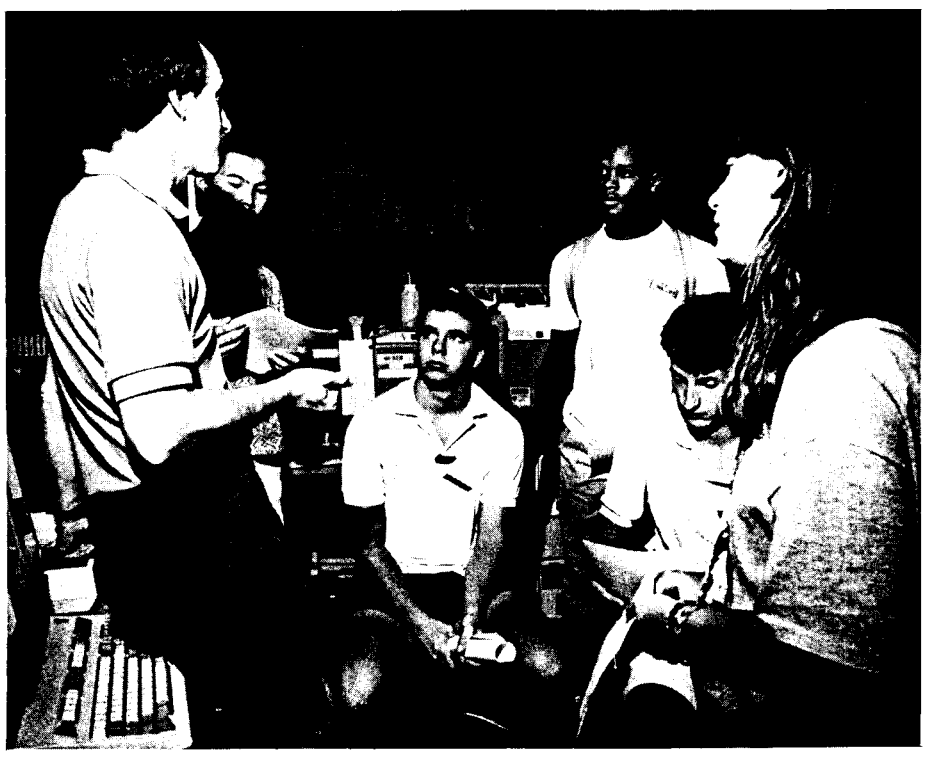
At the NSLS, Lonnie Berman, Dean Chapman, Carol Hirschmugl and Nancy Lazarz set up and conducted experiments with the honors students as well.

Laura Grego seemed as impressed with the setting as the science, asking Williams, "How did you get this neat place up here?" Grego, who is interested in science writing, will attend the University of Michigan in the fall.

"It's a lot more serious than I thought it would be," said Thomas DeForest. "But it's fun." DeForest plans on studying engineering at Bismarck State University in North Dakota.

Students are required to turn in written laboratory reports of the experiments. Besides doing research at the NSLS, they take tours of BNL laboratories and attend lectures.

The students will be at BNL through August 8.



Physicist Gwyn Williams and the Zeta Group experimenting at the National Synchrotron Light Source (NSLS). From left, Williams, NSLS; David Yu, Ohio; Thomas DeForest, North Dakota; Dorian Archer, Virginia; Alessandro Remotti, Italy; and Laura Grego, Michigan.

Summer Student Special Edition

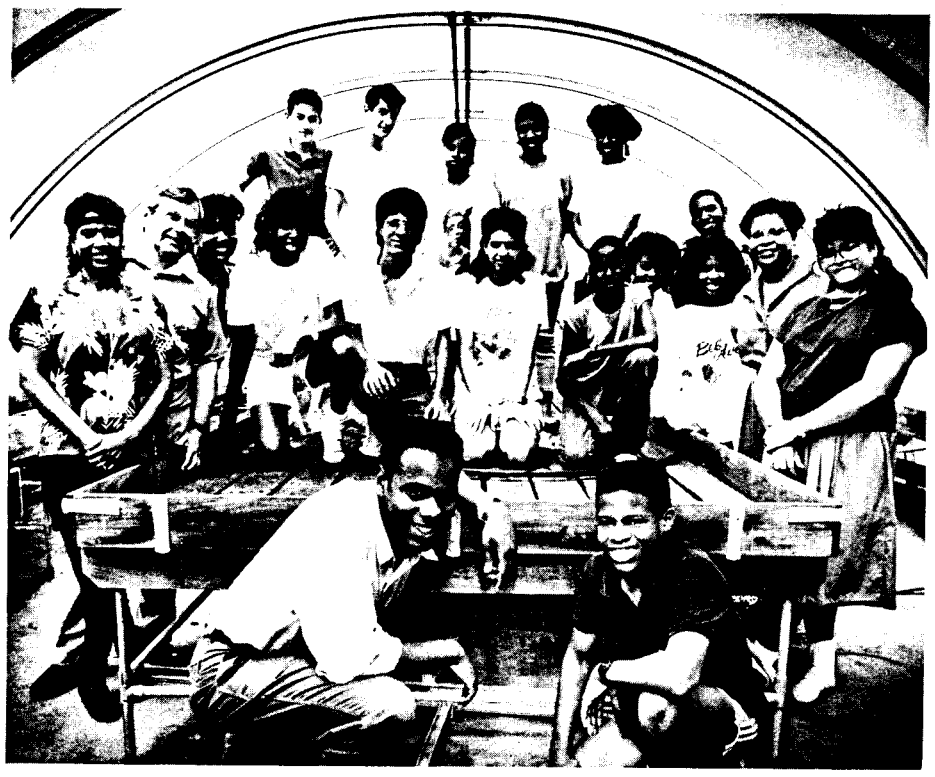
BNL's Youngest Summer Scientists

Fourteen-year-old Oronde Smith is a smiling, compact ninth grader from Jamaica, Queens. He participated in the July term of the Summer Apprenticeship Research Program for Minorities, administered by BNL's Affirmative Action Office and funded by the Office of Educational Programs (OEP).

Now in its eighth summer, the Apprenticeship Program is for ninth and tenth grade students who have demonstrated ability or potential in science. Students participate in one of two four-week terms during July or August.

To demonstrate his ability, Smith did biology research at Jamaica High School and has presented a project at the Queens Science Fair on "The Effect of Electric Shocks on The Regeneration Process of Planaria," a type of worm.

He is one of four students from the Gateway Program — an inner-city outreach program to motivate minorities in science. The others are Kareem Petty, Brooklyn; Hildania Custodio, Manhattan; and Shakira Cooper, Staten Island. Along with 30 minority students from Suffolk County, they study a week each of physics, biology and medicine, chemistry and computers, and energy and engineering.



With 15 other student apprentices in the greenhouse are (front, from left) Miguel McInnis and Oronde Smith, (back, second from left) teacher Arthur Pitschi, and (back, second from right) Renée Flack, Affirmative Action Office.

Questions Mean Curiosity

"During the four weeks, we expose them to all areas of science to some degree," said Arthur Pitschi. A teacher in the Patchogue-Medford School District for 27 years, Pitschi has also been teaching in the Apprentice Program since it began. The other instructors are Barbara Riess of Baldwin, and Clayton Hudson of Central Islip, who teach the physics and chemistry weeks, respectively.

Outside of the classroom, the students visit various BNL labs and go on field trips.

"These students are fantastic," said Pitschi. "I feel more wound up at the end of the day than at the beginning.

"The question," added Pitschi, "that's what I look for. A student who asks questions has learned something."

This year, the group is setting up a hydroponic greenhouse behind the Biology Department to grow tomatoes, beans and other fruits and vegetables in nutrient solutions, rather than soil. "Hydroponics produces more biomass than soil does," said Smith.

One student who has learned something is Smith. He enjoyed the Apprenticeship Program so much, he wants to come back next summer. "I'd like to work with the Scanning Transmission Electron Microscope," said Smith. "It interested me when I saw it on one of the tours."

Another Teenager in the House

Gateway students live with a Lab family during their month at BNL. Smith lived with Pamela Gibbs (Biology) and James Gibbs (Plant Engineering) and their three teenage children. "At first I was hesitant about putting a teenager in a house with other teenagers," said Pamela Gibbs. "But after meeting Oronde and his family we invited him to stay with us. Oronde just fit right in. All my kids liked him."

Smith found life in Suffolk County very different from Jamaica, Queens. "I'm used to walking to the store," he said, "but there are no corner stores around here."

Smith would like to be an astronomer. "If that doesn't work out," he said, "I'll be a medical doctor or a lawyer. My mother says I should be a lawyer because I can talk my way out of anything."

Visited and Stayed

Last July, Lisa Mahood was a tenth grader participating in the Apprenticeship Program that Oronde Smith is in today. This summer, the 17-year-old from Mastic is one of four minority students doing biomedical research here at BNL, funded by a grant from the National Institutes of Health.

Mahood helps out the staff in Ralph Fairchild's cell lab and is trying to grow a line of Chinese hamster ovary cells.

"We visited this lab last year," said Mahood. "I stayed after to talk to Brenda Laster to see if I could work here — and here I am. If I'm successful at keeping these cells alive, I'll get more responsibility."

Mahood wants to attend college. "I'm going in as a premed," she said. "I like pediatrics or maybe surgery."

Looking Back

Another alumnus of the Apprenticeship Program who plans on becoming a physician is Miguel McInnis. After four years away from BNL, he is back in the Summer Student Program, run by the OEP for college students.

McInnis is working with Mow Lin and Eugene Premuzic, in the Department of Applied Science, building a small-scale microbial leaching plant for removing heavy metals from waste.

McInnis visited the new Apprenticeship students and his former teacher Pitschi at the greenhouse last week.

Looking back, McInnis said, "I was really enlightened participating in this program. I'm happy it's continuing. It opens your eyes."

It was the introduction to biology and medical technology that he got in the Apprenticeship Program that interested McInnis in medicine. He is now a junior at Oakwood College, in Alabama.

He plans to attend medical school after college to become a general practitioner. "My goal is to open a clinic in an underdeveloped area. Maybe in Jamaica, West Indies, where I'm from originally," said McInnis.

Pitschi praised Renée Flack, administrator of the Apprenticeship Program, for her dedication. "It's been Renée Flack's initiative, enthusiasm and 'stick-to-it-iveness,'" said Pitschi, "that have made it possible."

Flack is proud of the program and the students. "I am now beginning to see all my babies branch out and come back," she said with a broad smile.

Lisa Mahood (center) with Brenda Laster and Ralph Fairchild.

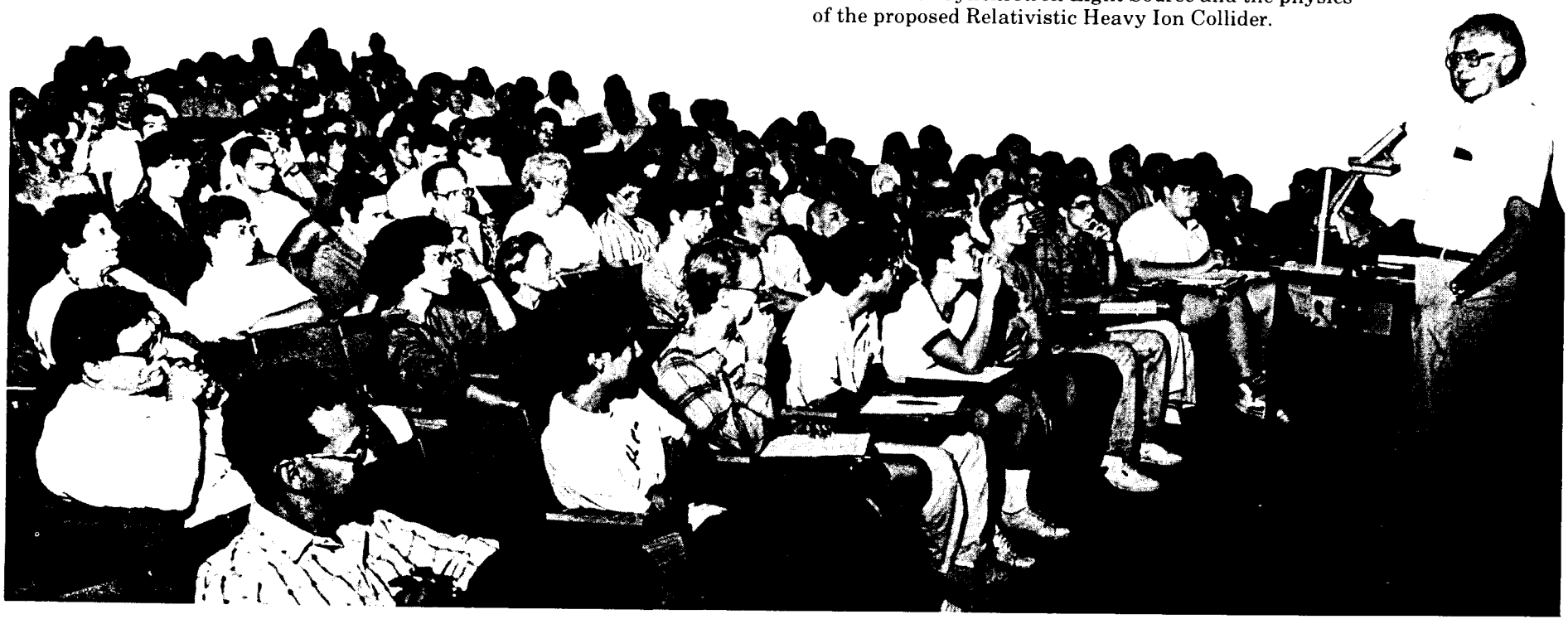
An Attentive Audience for Summer Science Talks

Coca-Cola, not coffee, is the refreshment preferred by the attendees at the morning lecture series this summer.

That's because they're teenagers — high school students participating in the Lab's new Community Summer Science Program. Also attending the Friday lectures are students in a Southampton College program run by the National Center for Excellence in Education.

Lecturers have included Sheldon Glashow (below, right), who received the 1979 Nobel Prize in Physics, for his contributions toward the formulation of the electroweak theory. Glashow, the Higgins Professor of Physics at Harvard University, spoke to the students about interactions.

Other lecture topics have included high temperature superconductors, the very early universe and future accelerators. Students also are being introduced to science — as performed at BNL — in lectures on science at the National Synchrotron Light Source and the physics of the proposed Relativistic Heavy Ion Collider.



Summer Studies at BNL

In addition to the four programs featured in this edition, BNL offers nine other summer research, education and training programs for various students. Eight are open to high school, college or graduate students — and there is one for high school teachers. For more information about a specific program, call the person listed.

• For High School Students

BOCES II Summer Science Internships for Gifted & Talented High School Students — High school students with an aptitude for science, selected by the Board of Cooperative Educational Services (BOCES) from the 27 school districts in eastern Suffolk County (Region II), spend half days during July working in BNL labs. Donna Dowling, Personnel Division, Ext. 2754.

Youth on Campus — Local minority high school students receive on-the-job training in clerical, secretarial and technical jobs. Frances Ligon, Affirmative Action Office, Ext. 3709, or Donna Dowling, Ext. 2754.

• For College Students

Science & Engineering Opportunities Program — Twelve college freshmen and sophomore minority and women students are apprenticed for the summer to gain first hands-on exposure to science and engineering. Frances Ligon, Ext. 3709.

Southampton College Co-op Internship Program — About a dozen undergraduates from Long Island University's Southampton campus work with BNL researchers for ten weeks. Donald Metz, Office of Educational Programs, Ext. 3054.

MIT Internships — Engineering undergraduates from the Massachusetts Institute of Technology (MIT) work in BNL's Department of Nuclear Energy during the summer after their sophomore through senior years and for six months after graduation, in preparation for graduate school. Jeffrey Taylor, Personnel Division, Ext. 2703.

• For Graduate Students

Thesis Research — Ph.D. students carry out thesis research in BNL departments as members of user groups. Individually arranged.

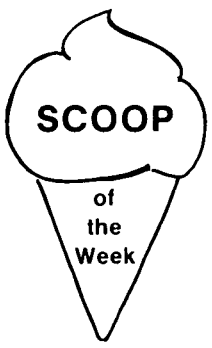
Health Physics Training Program — This ten-week program is open to a dozen or so students who either have received or are completing their master's degrees in health physics, to give them experience in the workplace. Frank Marotta, Safety & Environmental Protection Division, Ext. 4273.

GEM Program — The Graduate Engineering for Minorities (GEM) program, sponsored by the National Consortium for Graduate Degrees for Minorities in Engineering at Notre Dame University, brings to BNL for two consecutive summers about a half dozen minority engineering graduate students, or college junior and senior engineering majors planning to go on to graduate school. Frances Ligon, Ext. 3709, or Jeffrey Taylor, Ext. 2703.

• For High School Teachers

Summer Research Participation Program — For ten weeks, high school teachers become part of ongoing research projects at BNL. Some teachers participate for three consecutive summers and also conduct research at private corporations. Donald Metz, Ext. 3054.

Scoop of the Week



The scoop for week number five of the Scoop of the Week contest goes to summer student Kenneth Ritley — for reading the Editor's mind.

Every year, the Bulletin publishes the story on summer students. This was unbeknownst to Ritley when he came up with not only the idea for a summer student story, but the draft of an article as well. Ritley's ideas contributed to one of our stories in this summer student special edition.

Throughout the summer, the Bulletin will be trading hot tips for scoops of cold frozen yogurt. To enter the Scoop of the Week contest, rush your news and feature scoops to the Bulletin, Bldg. 134, or call Ext. 5053. If you scoop the Bulletin's informed sources and a story based on your idea is published, you'll win an official certificate for soft-serve, frozen yogurt, redeemable anytime at the Cafeteria.

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The Students Of Summers Past

Over the years, thousands of students have spent summers at BNL. One of those was James Wyche, who first worked in the Instrumentation & Health Physics Division under the supervision of Smith Pearsall in the summer of 1962.

Twenty-six years later, Wyche has become Associate Dean and Associate Professor in the Division of Biology and Medicine at Brown University.

In 1965, Wyche returned to the Lab as a full-time research assistant to Milislav Demerec in the Biology Department. He left BNL in 1966 to work with Demerec at C.W. Post. After Demerec's death, he entered The Johns Hopkins University for graduate work in bacterial genetics, receiving his Ph.D. in 1972.

BNL was a family affair for Wyche, whose father William retired from Plant Engineering in 1984 and mother Fannie retired from the Physics Department in 1981.

Editor's note: To recommend a former summer student to be featured in this column next year, please contact the Bulletin, Ext. 2345.

All film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Runners' Corner

Applications are available in the men's and women's locker rooms for the first Jim Smith 5K Memorial Race, sponsored by the Port Jefferson Road Runners. The race will be run in Port Jefferson, on Saturday, August 20, at 9 a.m. It will start at Port Jefferson High School and finish at the harbor. For more information, call Ed Gill, Ext. 7207 or 473-8716, or Paul Lennon, 473-5136.

Sunday, July 17, 30 BNL'ers and three of their spouses participated in the fifth edition of the Clipper Classic, a 5 kilometer (k) footrace in Bellport, on one of the fastest and prettiest courses on Long Island.

For many of the BNL runners this was either their first or best attempt at 5 k. At the front of this year's race were two past winners and current members of the BNL Roadrunners: Terry Sullivan, first, and Trevor Sears, fourth.

Runner	5k Time	Comments
Terry Sullivan	14:36	1st
Trevor Sears	15:14	4th
Paul Geiger	17:04	PR
Mel Cowgill	17:42	
Jerry Hastings	17:56	
Don Mackenzie	19:09	
Rich Thorp	19:15	PR
Sharon Zuhoski	19:36	PR
Bill Thomlinson	19:47	
Skip Medeiros	20:09	
Chuck Samar	20:10	
Gus Prince	20:14	
Dennis Nordstrom	20:23	
Ricky Backofen	22:20	PR
Kevin Hester	22:25	1st race
Ben Burr	22:30	
Venki Ramakrishnan	22:35	PR
Nick Gmur	22:38	PR
Dave Fridae	24:20	PR
Sue Ellen Gerchman	25:15	PR
Sheryl Carey	25:22	PR
Ed MacDougall	25:24	PR
John Dunn	25:25	
Joan Slavinsky	26:16	PR
Carrie Grimshaw	26:30	PR
Vera Ramakrishnan	26:45	1st race
Steve Gill	28:26	1st race
Donna Cyr	29:00	1st race
Debbie Samar	30:04	1st race
Bonnie Biittner	30:30	PR
Marilyn Mckeown	30:30	PR
Ronnie Evans	31:15	PR
Patti Gill	31:49	1st race

PR indicates personal record

Social Club

Sesame Street — Live! will be at the Nassau Coliseum on Saturday, September 3, and the Social Club has 30 tickets available for the 5:30 p.m. performance. These excellent seats are $8.50 per person. Send checks, made out to Nassau Coliseum, to Doris Terry, Bldg. 197C, Ext. 7610, or Jean Ramirez, Bldg. 197C, Ext. 2119.

A suggestion was made to look into a Summer Special to Las Vegas. Reservations for a three-night, four-day trip can be made by calling Casino Caravan at 872-3600 or 825-8000. The trip costs $349, but $200 will be refunded after eight hours of gambling. Transportation is by American Western Airlines, leaving Kennedy Airport on Monday, August 29, with free drinks on board. Deluxe accommodations will be at the Rivera Hotel, including three meals a day, unlimited drinks and complimentary show tickets. If interested, call Doris Terry, Ext. 7610.

Arrivals & Departures

Arrivals

Phyllis M. D'Avanzo ..... P&GA
John D. DeRicco ..... Accel. Dev.
Ewa Gudowska-Nowak ..... DAS
MaryEllen Hubner ..... Sup. & Mat'l
Chi-Chang Kao ..... NSLS
Mark A. McNeill ..... AGS
Chien-Ih Pai ..... Accel. Dev.
Kevin S. Smith ..... Physics
Qiming Zhang ..... Chemistry

Departures

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

Arnold S. Benson ..... Plant Eng.
John J. Borstock ..... Sfgrds. & Sec.
Jennifer J. Fisher ..... AUI
Nancia Gargliardo ..... Staff Serv.
Kenneth W. Ryan ..... Tech. Info.

Scholarship Presentation

The 1988 Renate W. Chasman Scholarship for Women will be awarded to Nancy A. Budka of Smithtown, who will be a junior majoring in biology at the State University of New York at Stony Brook this fall.

At the third annual awards ceremony, Budka will be presented with a $1,000 check and a certificate, on Wednesday, August 10, at 4:30 p.m. in Room B, Berkner Hall. Refreshments will be served, and all are invited to attend.

The $1,000 Scholarship was established by Brookhaven Women in Science for women who have returned to college for technical or scientific degrees on the undergraduate or graduate level. It honors the memory of the late BNL Physicist Renate Chasman, whose work with the late Ken Green was the basis of the design of the two storage rings at the National Synchrotron Light Source, as well as other synchrotrons around the world.

LINK.bnl

AMD's Computing Newsletter and MIS's Offline Relay have been combined into one newsletter — called LINK.bnl.

The newsletter will be jointly published by the Applied Mathematics Department (AMD) and the Information Services & Support Group of the Management Information Systems Division (MIS). All BNL employees will receive the first issue next week.

In focusing on items and events that best describe the computing environment at BNL, LINK.bnl will: inform computer users about committee decisions, new procedures, and specific application and computer systems updates; and convey information about the strategies, objectives and trends that influence BNL computing. Of most importance, the publication will present a coordinated and unified approach to computing at the Laboratory.

For more information, call Robert Kaszuba, Ext. 7785.

Computer Seminar

The VAX 3200 and 3500 workstations will be the subject of a seminar by Digital Equipment Corporation and Pioneer Standard, on Wednesday, August 10, from 9:30 a.m. to noon, in the Applied Mathematics Department seminar room. For more information, call Paul Kessler, Ext. 4156; to register, call Denise Curcio, 921-8700, Ext. 481.

team safety

Week three of the Team Safety program* and the team records are still *perfect* as of the date of this report.

Word on the field this week is that the bats have never been hotter. Despite the hot weather and the associated problems the heat brings, the pitchers are hanging in there.

Current rumor is that the owner of the pizza parlor won't sell and PE is looking for a deli. There is also a report of Jimmy taking odds on the first strikeout, but no one in Vegas can confirm this. Let all ye nay-sayers take note: *Keep up the safe work!*

** Twenty-six teams are participating in the Lab's Team Safety program. As none have incurred a lost-time injury, all are still in the running to be rewarded for their safe practices with a pizza or deli luncheon.*

Equipment Demo

Representatives from Hewlett-Packard will demonstrate personal computers, printers and plotters on Thursday, August 11, from 10 a.m. to 3 p.m., in the Berkner Hall lobby.

Reserve a Seat For Train Taxi

At 4:25 p.m. every weekday, New York-bound visitors may take a Lab car to Shirley to meet the 4:52 p.m. train, which arrives at New York's Pennsylvania Station at 6:32 p.m. The car leaves from Bldg. 134, Public Affairs, and passengers should be on hand by 4:20 p.m. Anyone planning to take this "train taxi" should call Ext. 2345 before 2 p.m. that day to reserve a seat.

Also every weekday, a Lab driver meets the 9 a.m. train from Penn Station on its arrival at 10:37 a.m. in Patchogue. BNL-bound travelers are then brought to their individual destinations on site. Please call the Transportation Office, Ext. 2535, to reserve a seat in this car.

Cafeteria Menu

Week of August 8

Monday, August 8

Beef barley soup	(cup)	.75
	(bowl)	.95
London broil w/1 veg.		3.10
Fettuccine carbonara w/1 veg.		2.95
Fried clams w/1 veg.		3.00
Hot deli: Baked ham	(bread or roll)	2.85
	(hero)	2.95

Tuesday, August 9

Split pea soup	(cup)	.75
	(bowl)	.95
Pork chop Oriental w/1 veg.		3.10
Chicken enchiladas		2.95
Baked fresh fish w/1 veg. (lite-weight)		2.95
Hot deli: Pastrami	(bread or roll)	2.85
	(hero)	2.95

Wednesday, August 10

Chuck-wagon stew chowder	(cup)	.75
	(bowl)	.95
Southern-fried chicken w/1 veg.		3.05
Stir-fried beef Oriental w/rice		3.10
Hot deli: Philadelphia steak sandwich	(bread or roll)	2.85
	(hero)	2.95

Thursday, August 11

French onion soup	(cup)	.75
	(bowl)	.95
Braised fresh brisket w/1 veg.		3.10
Sautéed chicken livers w/rice		2.95
Chef's salad plate (lite-weight)		2.35
Hot deli: Breast of turkey	(bread or roll)	2.85
	(hero)	2.95

Friday, August 12

Fish chowder	(cup)	.75
	(bowl)	.95
Veal Parmesan w/spaghetti		3.10
Tamale pie		2.95
Baked fresh fish w/1 veg. (lite-weight)		2.95
Hot deli: Roast beef	(bread or roll)	2.85
	(hero)	2.95

Help Wanted At Cafeteria

Marriott Corporation, which runs the Cafeteria, needs several new employees to fill utility and general positions. Marriott Corporation is an equal opportunity employer. Anyone interested may apply in person at the Cafeteria. For more information, call Ext. 3541.

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 and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

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.

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 Employment Manager, Ext. 2882.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

2912. ASST. GENERAL SUPERVISOR - (Construction Support) Requires prior supervisory experience and extensive knowledge within the mechanical trades. Responsible for assisting the General Supervisor in the control and administration of contract labor in the mechanical trades in support of construction, improvements and modifications. Coordinates work within BNL and with outside trades. Plant Engineering Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2913. CABINETMAKER A - Under minimum supervision, lays out, constructs, modifies and maintains furniture, laboratory equipment and buildings, and component parts. Works with wood, wood substitutes and combination materials, and flooring, roofing and wall materials. Uses hand, portable and fixed tools common to building construction and cabinet making trade. Plant Engineering Division.

2914. TECHNICAL POSITION - Requires a BS degree in chemistry, engineering or in related field or the equivalent experience. Will perform wide variety of duties with regard to operations conducted at the hazardous waste management site. These include the on-site transport, handling and packaging of chemicals and radioactive materials, operation of light and intermediate range machinery, maintenance of selected personnel protective equipment, and assistance in regulatory record keeping requirements. Safety and Environmental Protection Division.

Motor Vehicles & Supplies

88 TRAVEL TRAILER - 32', sleeps 5, master bedroom, a/c, full bath, $15,000. Ext. 4685 or 929-8673.

87 HELIX SCOOTER - radio, 750 mi., excel. cond., $2,000. 265-8611 after 6 p.m.

85 KAWASAKI 110 ATV - low mileage, new windshield, excel. cond., $600. Ext. 5316 or 727-0364.

84 LeSHARO WINNEBAGO MOTOR HOME - 19', fully equipped, sleeps 4. 475-0509.

84 MAZDA RX-7 GS - white, a/c, 5-spd., sunroof, garaged in winter, new Eagle tires, must sell. 345-3915.

84 CAMARO - blue, 5-spd., V6-2.8L, 61k mi., sunroof, excel. cond., asking $5,500. Fred, Ext. 7947 or 588-2268 after 5 p.m.

84 CHRYSLER LeBARON - 4 dr., a/c, 4 cyl., front wheel drive, full power, 29k mi., mint, must see, $6,000. Charles, Ext. 3897.

84 OLDS CUTLASS - 4 dr., blue, 8k mi., garaged, like new, a/t, a/c, am/fm, rust proofed. Frank, Ext. 3531 or 281-7578.

83 BUICK REGAL - a/c, p/s, p/w, am/fm, champagne, landau top, excel. cond., $4,500 neg. Bob, Ext. 7238.

83 TOYOTA COROLLA - rear wheel drive, 4 cyl., a/t, 2 dr., p/b, a/c, 48k mi., excel. cond., $4,000. Ext. 2944.

82 MERCURY CAPRI - clean in/out, needs engine work, asking $500. Dick, Ext. 4313.

81 VW RABBIT - diesel, new tires, no rust, runs well, $1,150 neg. 689-8685.

81 PLYMOUTH RELIANT - a/c, a/t, p/s, p/b, 66k mi., am/fm cass., new radials & exhaust, 25 mpg, very good cond., $1,950. Ext. 7766 or 757-2645.

81 SKYLARK - 4 dr., V6, good tires, new cv's & exhaust, high mileage. Bob, Ext. 5286.

80 HONDA ACCORD - good cond., $1,750. Ext. 2201 or 4898.

80 YAMAHA 850 SPECIAL - 6k mi., full fairing, trunk, shaft drive, excel. cond., $850. Ext. 2697 or 878-0175.

80 CHEVETTE - 4 dr., hatchback, a/t, 80k mi., am/fm, excel. mech. cond., $600. Ext. 2055 or (212) 543-8026.

80 JIMMY - 350, V8, p/s, p/b, p/w, a/t, am/fm, a/c, sliding windows, 4WD, 70k mi., $5,200. Ext. 4030.

80 AUDI 4000 - 4 cyl., 4-spd., am/fm, 93k mi., good cond., $2,200. Ron, Ext. 3987.

80 BMW 320i - looks new, excel. cond., $5,500. Bob, Ext. 7116 or 744-9861 after 6 p.m.

80 BUICK SKYLARK - 4 dr., full power, new trans., orig. owner, excel. cond., $1,700. Ext. 3593.

79 DATSUN 210 - 5-spd., new clutch, runs well, some damage, rust. Joe, Ext. 2114 or 2705.

79 COUGAR XR7 - fully loaded, must sell, make offer. Tony, 698-9274 after 6 p.m.

78 CAMARO - 8 cyl., 305 eng., a/t, p/s, a/c, am/fm cass., excel. cond., $2,700. 369-9329 after 5 p.m.

78 OLDS CUTLASS - p/s, p/b, a/c, 2 dr., maroon. 924-3553.

Boats & Marine Supplies

34' HOUSEBOAT - all new interior, f-wc Chrysler, excel. cond. Pat, Ext. 2939.

27' TARTAN - 9 sails, VHF-FM df/rdf, auto helm, compass, refinish top side, many extras. 669-9202 after 6 p.m.

14' DIXIE RUNABOUT - 1973 65 h.p. Johnson, trailer, full canvas, cover, w/most accessories, excel. cond., $3,000 neg. Sue,. Ext. 4931.

9' SAILING DINGHY - w/sails, $200; 2.7 h.p. motor, $200. 366-0021 after 5 p.m.

MORSE ENGINE - single lever control & cables, twin engine, $65 neg. Ernie, 588-4987.

MERCURY ENGINE - 50 h.p., 1976, electric start, w/controls & cables, $600; 1975 Mercury 50 h.p. parts, $125. 281-4337.

EVINRUDE ENGINE - 18 h.p., outboard, long shaft. 924-4789.

CANOE - good cond. Ext. 4846 or 363-6940 after 5 p.m.

STEERING CABLE - Tele-flex, brand-new, never used, 15', $20; boat ladder, $10. Sheryl, Ext. 4400.

Miscellaneous

DISHWASHER - Kenmore Power Miser, multicycle, w/sanitizer, $40; maple dining table, w/leaf, good cond., $15. Ext. 2679 or 472-6922.

REFRIGERATOR - GE, 20.5 cu. ft., white, frost-free, top freezer, good cond., $150. Noreen, 878-6921.

DRYER - Maytag, old, works well, Maytag washer included, $45. 289-0532 eves.

REFRIGERATOR/FREEZER - side-by-side, 19 cu. int., $250. 878-9239.

DRESSER - modern, five-drawer, $20. 286-8521.

BUNK BEDS - w/dresser, $150; air conditioner, $75; organ, $100; exercise machine, $75; kerosene heater, $40. 473-9357 after 6 p.m.

CHANDELIER - stained glass, $75. Sheryl, Ext. 4400.

LOUNGE CHAIR - & ottoman, brown, $75; Eureka upright vacuum w/attachments, $40; brass-coated andirons, $5. Ellie, Ext. 3395 or 325-1537.

AREA RUGS - twin, 8'x11½', wool, natural color, 2 years old, $145/each. John, Ext. 7671 or 765-1299.

BOTTLE CAPPER - old, $10; deco bureau & chiffarobe, $100; hand meat slicer, $4. 878-6637.

REFRIGERATOR/FREEZER - GE, excel. cond., $75 or best offer; sewing machine in Singer cabinet, excel. cond., best offer. 584-7970.

SOFA & CHAIR - very good cond., sell together or separately. 475-0509.

COLOR TV - RCA, 25", excel. cond., $100; air conditioner, cools two large rooms, $25; bicycle, Peugeot, 10-speed, $50. 286-0422 after 6 p.m.

CHINA CLOSET - dark wood, back-lit, Mediterranean, w/matching table, $300. Adriane, 277-3916 after 5 p.m.

FURNITURE - Colonial, sofa, rocker, ottoman, side chair, good cond., $100. Ext. 2302 after 5 p.m.

COUCH - Colonial, large, good cond., $150; electric range, almond, self-cleaning, excel. cond., $200. 286-0904.

PICNIC TABLES - 28"x36", 6½'x3', w/benches, best offer; console w/stereo tv & radio, best offer. 399-2931.

RIDING MOWER - heavy-duty, 32" cut, engine not running. 286-8521 after 5 p.m.

LAWN MOWER - 3 h.p. tech. engine, 20" cut, new blade, $50. Dan, Ext. 4987 or 698-7322.

POWER PAINT ROLLER - Sears Craftsman, used once, orig. $74, asking $25; Sears humidifier, 5 gallon, stand-up, hall model, $10. Jim, Ext. 2432.

POOL COVER - for 18' round pool, $25. Bob, Ext. 7238.

FAN - 20", 3-speed, box fan, $10. Ernie, 588-4987.

CEILING FIXTURE - 3 lamps, $25. Wick, Ext. 7868 or 758-6773.

CAST IRON RADIATORS - assorted sizes for heating home, hot water, etc. 924-4789.

JACUZZI - ¾ h.p. 220V conv. deep/shallow well pump, orig. $383, sell for $250. 298-4172.

POOL - above-ground, w/accessories, 8 months old, mint, $700 neg. Denise, Ext. 3630 or 758-1595 after 5 p.m.

WINDOWS - 8'x4', casement style, good cond., $90; 46"x37", aluminum, double-hung, $15. Brian, Ext. 5265 or 234-9487.

BICYCLE - Schwinn, 3-speed, women's Collegiate, $65; Mamiya ZE-2 35mm camera, used only twice, $155. Ext. 3699.

DEC EQUIPMENT - TU10 tape drive, DL11, Decwriter II, current loop contact; POP11/55 floating point. Pat, 924-5522, Ext. 250.

STEREO RECEIVER - Sansui, 20W/channel, good cond., good for student, $50. David, 878-8541 leave message.

TYPEWRITER - IBM, model C, standard electric, long roller, good cond., $75. Dave, Ext. 2694 or 941-9022.

TABLE - IBM, heavy-duty, $50. John, Ext. 4120 or 689-7963.

NINTENDO TAPES - $25-$30; Atari 2600, $40; various cartridges, $5-$8; controllers. George, Ext. 4453.

32 GALLON DRUM - w/faucet & stand, $20. 298-4172.

Lost & Found

LOST - soft ball glove on field #1, Louisville Slugger "Big Daddy." Barry, Ext. 5624.

Yard Sale

SHIRLEY - 3-family, toys, clothes, etc., Aug. 4, 5 & 6, Puritan Drive. Rolf, Ext. 4810.

Car Pool

PLAINVIEW - 4th driver needed. Elliott, Ext. 2495.

Real Estate

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

For Rent

BROOKHAVEN - 3 bdrm. house, quiet neighborhood, fenced yard, avail. Sept. 1, $775/mo. + util., Ext. 3084 or 281-3479 eves.

EAST PATCHOGUE - 2nd floor, 2 bdrms., l/r, eik, priv. ent., avail. Sept. 1, no pets, $500/mo. + util. Walt, Ext. 2907 or 698-0576.

MASTIC - 2 bdrm. house, furnished, monthly, + util. 881-7230.

PORT JEFFERSON - Harbor Hills, 3 bdrm., 2½ baths, l/r, d/r, eik, furnished, starting Oct. 1988, $950/mo. + util. Ext. 4932 or 928-8993.

PORT JEFFERSON - 2 bdrm. ranch, appliances, garage, bsmt., walk to harbor, $900/mo. + util. Ext. 4094 or 751-6575 eves.

SHIRLEY - 3 bdrms., l/r, eik, $775/mo. + elec.; 2 bdrms., l/r, eik, $550/mo. + elec., security & refer. 744-2821 or 281-8271.

SHOREHAM - 4 bdrm. cape, 2 full baths, eik, fp, garage, full bsmt., SWR school district, avail. Sept. 1, $1,000/mo. Debi, Ext. 2381 or 929-4729.

SHOREHAM - 1 bdrm. apt., clean, large, kitchen, l/r, full bath, priv. ent., working person, avail. August 1, $550/mo. all. 744-8659.

For Sale

CENTER MORICHES - 3 bdrm. ranch, 1½ baths, attached garage, storage shed, 111'x160' lot on cul-de-sac, excel. location, $144,500. 878-0175.

MASTIC - 80'x100', wooded, $20,000. 281-7230.

MIDDLE ISLAND - Artist Lake condo, 1 bdrm., l/r, kit., bath, a/c, new w/w, dishwasher, clubhouse, sauna, pool, gas heat, 5 min. to Lab, $82,500. Ext. 3144 or 234-2240, 698-5046 eves.

MILLER PLACE - Scotts Beach, 4 bdrm. ranch, ½ acre plus, private beach community, sunroom, spa, pool, city water, $190,000. Judy, 473-6631 after 5 p.m.

NORTH SHIRLEY - 4 bdrms., 2 baths, 1½ kit., l/r, d/r, den, fam. rm., w/w carpet, 6 appli., garage, vinyl siding, ½ acre, possible m/d, 8-months old, $157,000. Ext. 4605, 395-5991 or 281-5456.

PORT JEFFERSON - Harbor Hills, 4 bdrm., split ranch, d/r, eik, family rm. w/fp, brick patio, oak floors throughout, 24'x44' basement, reduced to $189,900. Ext. 4483 or 929-5699.

RIVERHEAD - 4 bdrm. 2-level ranch, 2 baths, possible m/d, ⅔ acre, large l/r, den, deeded beach rights, quiet neighborhood, 5 appliances, $150,000. 727-0499.

SELDEN - 4 bdrm. ranch, 2 baths, 1-car garage, newly decorated kit., ¼ acre, fenced backyard, above-ground pool, $125,000. Sue, 698-9341 after 5 p.m.

SHOREHAM - 3 bdrm. ranch, garage, above-ground pool, fenced yard, ½ acre, 10 min. to Lab, SWR schools, $137,000. 821-3373.

SHOREHAM - 3 bdrm. ranch, carpeted, coal stove, priv. fenced backyd., 2½-car garage, low taxes, SWR schools, clean, move-in cond., $135,900. 744-9677.

SHOREHAM - 4 bdrm. Colonial, 2½ baths, in-ground pool, large deck, ¾ wooded acre, fp, finished bsmt., $265,000. 744-9076.

SOUTHAMPTON - 3 bdrms., 2 baths, library, cathedral ceilings, skylights, fp, bay windows, patio, 1.5 acres, beach pass, $225,000. 369-1363.

YAPHANK - 3 bdrm. condo, end unit, brick front, full bsmt., attached garage, ca/c, w/w, 5 appl., pools, tennis, clubhouse, $123,900. 924-0612.

Wanted

ICE CREAM CHURN - for summer youth church program. Bob, Ext. 2350 or 732-9517.

CEMENT MIXER - Wet Saw/Bobcat, to buy or rent. Tony, 698-9274.

OLD LAWN MOWERS - or parts, any cond. Ext. 4843 or 878-2239.

WORLD WAR I & II ITEMS - U.S., foreign, uniforms, insignia, photo books, hats, helmets, any cond. Fritz, Ext. 4049.

STUDENT - for lawn mowing, other jobs, regular basis, Bellport village. 286-3742 eves & wdnds.

OLD LAWN MOWERS - gas, complete, will pay according to condition. Dan, Ext. 4987 or 698-7322.

MINERALS - mineral collections, mineral books, old, any language. Plotkin, 798-2887.

DEHUMIDIFIER - small. John, Ext. 7671 or 765-1299.

BABY ITEMS - car seat, high chair, stroller. Ext. 7192.

HOUSESITTER - for 1 week, Bohemia. Frank, Ext. 2314 or 567-5131.

BABYSITTER - Stony Brook, my home, starting in Sept., full-time, infant & 3 year-old. Sally, Ext. 3854.

Services

BRICKWORK - patios, walks, swimming pools, Belgian block, landscape ties, retaining walls, 20 yrs. exp., Lab discount. Tony 698-9274.

PARTY TENTS - for rent, we set up and take down. Fred Kuehl Ext. 7947/792 or 588-2268.

LANDCLEARING - using excel. rake on JD 450 track loader; $60/hr. w/operator. Tom, Ext. 4084 or 878-1060.

WORD PROCESSING - papers, letters, resumes, quality work, reas. rates, 12 yrs. secretarial exp. 924-2012 after 6 p.m.

RUG SHAMPOOING - very reasonable, Lab discount. 924-6019, leave message.

CALLIGRAPHY - for all occasions, envelopes, invitations, place cards, etc. Andrea, 821-0260.

JEWELRY REPAIR - gold & silver, rings, chains, etc. Dan, Ext. 2319.

KAYAK LESSONS - Sea Kayak, River Slalom equipment provided, 5 lessons, $70. Tim, 281-7873 or Ernie, Ext. 3357.

BAGPIPER - all occasions, try something entertaining. Timmy, 727-7741.

VIOLIN INSTRUCTOR - classical & traditional Irish. Kathleen, 727-7741.

MATH TUTORING - NY certification. 821-0686 eves.

SPACKLING - good price, available on wknds. John, 281-3342 after 6 p.m.

HOUSECLEANING - reasonable rates, professional service, references. Roberta, 924-3655.

HOME IMPROVEMENTS - renovations, extensions, decks, windows, skylights, free estimates, references avail., licensed & insured. 744-3068.

CARBURETORS REBUILT - custom, at wholesale prices, auto/marine/foreign/domestic. 665-5450.

HOME IMPROVEMENTS - design, drawings, blue prints, permits, custom design according to your specifications. 475-6981.

TYPING - done on IBM-PC using WordPerfect software, reasonable. 286-3604 or 286-0969.

NAIL DESIGN - all phases, my home or yours. Karen, 266-3073.

VINYL SIDING - roofing, etc., free estimate. Joe, 281-4611 5:30-6:30 p.m.

LIGHT CLEAN-UP - pick-up for hire; car detailing. Wayne Cummings, Ext. 3499.

LOCKSMITH - bonded, 10% discount for BNL employees. Pete, 399-2813 after 5 p.m.

Ads left out of this issue due to lack of space need not be re-submitted to appear in the next issue.