BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

DOE Committee Pleased With Booster Progress

"We've been told we have both substance and form," said Bill Weng, project manager of the Accumulator-Booster Project, after the successful semi-annual Booster review by a Department of Energy Review Committee (DRC) from April 12 to 14. Weng, a Physicist in the Accelerator Development Department (ADD), was reporting on the DRC's approval of work accomplished in the last six months in technical design, construction, cost, scheduling and management.

Projected for completion in 1991, the Accumulator-Booster will be a small accelerator through which particles receive the intermediate phase of acceleration before entering the Alternating Gradient Synchrotron (AGS). It will increase the intensity of protons and polarized protons for high energy physics experiments and allow the AGS to accelerate the whole range of heavy ions generated in the Tandem Van de Graaff accelerator.

Among the technical milestones that especially interested the reviewers was the prototype half-cell set up by a team working with Rudolph Damm, Senior Project Engineer, ADD. A complex of dipole, quadrupole and sextupole magnets mounted on a common base was placed in a mock tunnel to test the effect of space restrictions, alignment of components, installation of the beam tube and performance of vacuum and electrical equipment.

Also receiving positive attention was the Booster Accounting and Reporting System (BARS), established for the review by a team working with Jesse Becker, Department Administrative Manager, ADD.

BARS is an automated system that shows project estimates and costs down to the lowest level of the work breakdown structure. At each level, the original baseline estimate and any variance from the current working estimate are presented in the same format. This uniformity, along with the graphics that summarize tables of information, make the work breakdowns, procurement plans, milestone schedules and project status easy to assimilate.

The DRC further commented that the Booster project has good and competent people on the team, Weng said, and that BNL's success in building the Booster would certainly have a positive impact on the Lab's Relativistic Heavy Ion Collider proposal.

Peter Horton

Standing in front of the prototype half-cell in the tunnel mock-up are Accumulator-Booster Project team members (from left): John Koehler, Physics; John Wilcenski, Accelerator Development (ADD); Hsiao-Chaun Hseuh, Alternating Gradient Synchrotron; and William Stokes Jr., ADD.

Committed to Affirmative Action

Peter Horton

BNL is committed to a policy of equal opportunity, and the nine members of the Affirmative Action Advisory Committee, appointed by the Director, are committed to promoting Laboratory maintenance of a program of recruitment, placement, training and upgrading of minority employees and women.

Committee members pictured are (from left): Bruce Penn, Nuclear Energy; Cosmore Sylvester, National Synchrotron Light Source; Barbara Simpson, Contracts and Procurement; Lawrence Toler, Physics; Roger Taneus, Reactor; April Donegain, Chair, Fiscal; José Sanchez and Clara Sells, both of Plant Engineering. Not present was Anne Flood, Accelerator Development. Earl Blanton, Assistant to the Director for Affirmative Action; Avril Woodhead, Women's Program Coordinator; and Frances Ligon, Secretary to the Affirmative Action Advisory Committee serve as ex officio members.

The Committee serves to advise the Laboratory Director on the affirmative action process so that minority employees are employed in all categories throughout the Lab, strongly involved in educational and training programs, and able to communicate effectively with the Lab administration. The Committee usually meets once a month and meets with the Director annually. Members welcome being contacted by Lab employees with ideas or concerns.

Summer Science for H.S. Students

High school students who are entering or have recently completed their senior year are the focus of a new Community Summer Science Program to be offered this summer at BNL.

As explained by Karl Swyler in the Office of Educational Programs (OEP), the program will consist of two parts: an open lecture series by Laboratory scientists in the mornings and a limited number of student internships in the afternoons.

The morning lectures, which will be held every weekday from the beginning of July to mid-August, will cover current topics in such areas as physics, astronomy, chemistry, biology, medicine and applied science. They will be open to all 1988 Suffolk County high school graduates, entering seniors and science teachers, as logistics permit.

After participating in the morning lectures, student interns will spend the afternoons in a research environment provided by their sponsoring BNL scientist. Interns, who must be at least 18 years old to begin their appointment, will be offered limited financial support.

Students must apply for both programs. The application deadline has been extended to May 20, and forms are available through area high schools or from the OEP, Ext. 4503. Post-deadline applications will be considered if openings remain. Science teachers should register for the lectures with OEP.

MIS Assumes PC Training Role

Personal computer (PC) training courses, which have been offered to employees on site by the Personnel Division, will become the responsiblity of Management Information Sytems (MIS) Division's Information Services and Support Group (ISS), as of May 1.

Under the direction of Robert Kaszuba, MIS Assistant Manager, ISS will now offer the introduction to the IBM PC and DOS courses. They will also continue to offer introductory courses on major software programs such as dBASE III Plus, Lotus 1-2-3, RBase System V and WordPerfect.

Previous requests for training do not need to be resubmitted, as MIS will begin scheduling based on all existing requests. Those who would like to submit new requests should contact their department administrator or Kaszuba, Ext. 7785, who will also discuss scheduling and suggestions for additional training.

The comprehensive PC training by ISS will enable attendees to explore and utilize the advantages of personal computing through core courses. They will go into micro-based applications such as PC operating systems (DOS, OS/2) connecting PCs to mainframe computers, spreadsheets, word processing and data base management software.

Currently, the principal instructors are Michael O'Reilly, ISS, and Kurt Fuchel, Applied Mathematics Department. Outside trainers may also be used.

O'Reilly will also conduct application workshops to help users develop their own systems utilizing the techniques presented in the core courses.

The training program's main objectives are to encourage the use of personal computers and to support the end-user computing community. There will also be an emphasis on making it easier to use the information contained within the ad-hoc and inquiry data bases that reside on System A, the user computer at MIS.

The Alchemy of Garnets

When one thinks of garnets, the study of magnetic interactions usually does not come to mind unless one is thinking about yttrium iron garnet crystals.

Yttrium iron garnet is perhaps the best model material for the study of magnetic interactions. By substituting various ions for those in the garnet structure, one can tailor the stone's physical properties over a very wide range, creating new and intriguing materials.

These effects will be discussed by Martha Pardavi-Horvath on May 5 at 1:30 p.m., in the Physics Department's small seminar room, Bldg. 510. Her talk on "The Alchemy of Garnets: Magnetic and Electrical Properties of Substituted Yttrium Iron Garnets" will be sponsored by Brookhaven Women in Science, and all are welcome to attend.

Pardavi-Horvath, a Postdoctoral Research Associate at Ohio State University's Magnetic Resonance Laboratory since 1985, conducts research on magnetic, optical and electrical properties of uncompensated magnetic garnets.

Born in Budapest, Hungary, Pardavi-Horvath received her master's degree in low temperature physics from Moscow State University in 1967.

Martha Pardavi-Horvath

That same year, she joined the Hungarian Academy of Sciences, where, in 1970, she became head of the Research Group of Crystal Technology and Characterization and, in 1985, she earned her Ph.D.

Dr. Pardavi-Horvath is the author of about 100 scientific papers and two books on magnetism. A member of the Roland Eotvos Physical Society of Hungary and the European Physical Society, she was awarded the Janossy Prize of the Hungarian Academy of Sciences in 1981.

— Photos by Walton

After 41 years of service that began on April 2, 1947, when he became the second photographer hired by the Laboratory, Robert Walton will retire from the Lab at the end of April. Since May 1969, Walton has served as Photography Supervisor; with his retirement, Mort Rosen assumes responsibility for the Photography Section of the Photography & Graphic Arts Division, which includes the section's photographers, dark room technicians, office staff — and about 500,000 negatives.

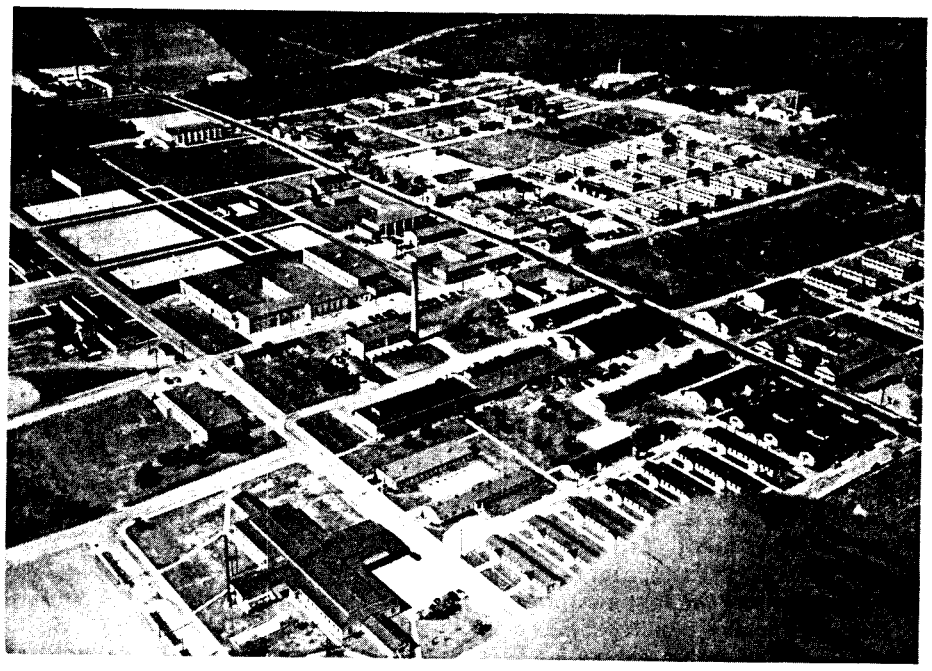
Mort Rosen

How many of those negatives are Walton's is anybody's guess, including his. Regardless of the total, a good number of Walton's negatives are firsts: The first photographs taken of many aspects of the Laboratory newly created 41 years ago. "Some of these negatives are so old that they are losing their silver," reports Walton.

In this photo retrospective, Walton shares the view of a young BNL he had as a young man behind a camera.

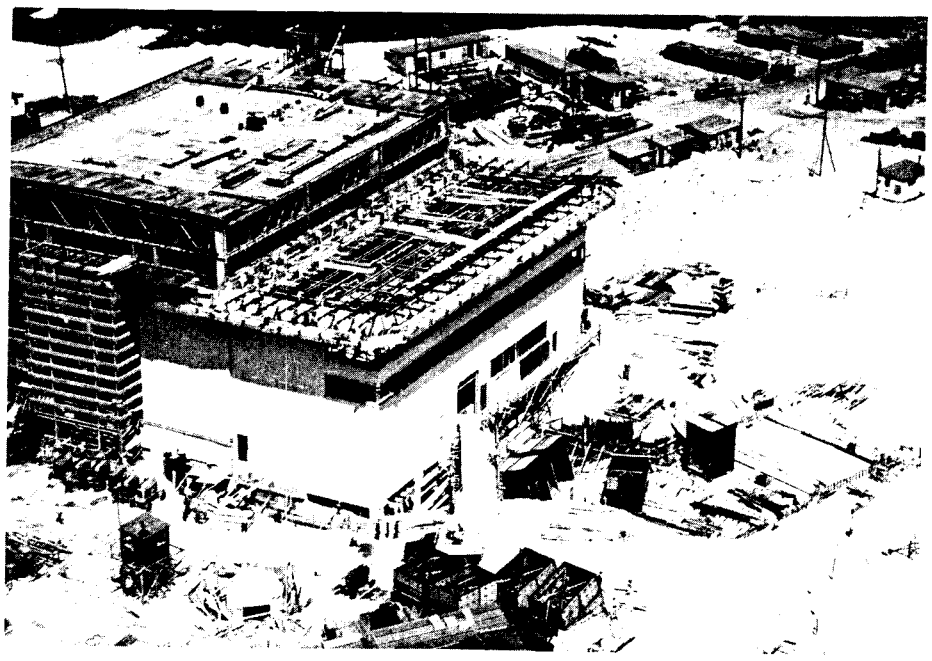
— Marsha Belford

From a picture of the old cafeteria that Walton took in November 1947, the luncheon menu can be read with the aid of a magnifying glass: Manhattan clam chowder 15¢, broiled mackerel 65¢, chicken pot pie 65¢, tuna fish croquette 60¢ and creamed chipped beef on toast 60¢. Cold plates cost 55¢ each for ham, roast beef or tuna fish, 45¢ for egg and 40¢ for cottage cheese. The old cafeteria, replaced by Berkner Hall on September 9, 1968, sat on the northeast corner of the intersection of Brookhaven Avenue and Columbia Street.



In October 1947, Walton shot the first aerial photograph taken of Brookhaven National Laboratory — which looks more like yesteryear's Camp Upton than the BNL of today. Walton took this picture hanging out of the airplane, the wing of which can be seen in the foreground, right.

No, this is not a picture of an Antique & Classic Motoring Club rally: Though today each of these autos would be classics and some would be antiques, they were merely being driven to work through the main gate at BNL when Walton snapped this shot one July morning in 1947.



The building to house the Lab's first big machine, the Brookhaven Graphite Research Reactor (BGRR), was seen under construction through Walton's viewfinder December 1951.

Safety Alert: Beware of Rumors

Back in 1983, the Bulletin reported a scary, false rumor in circulation at the time. Now Herb Schulman of the Safety & Environmental Protection Division advises that the same rumor is making the rounds again — and it's still totally untrue.

In the rumor's most recent version, an electrical worker from Duquesne Electric and a welder from United Parcel Service are said to have been exposed to an electric arc while wearing contact lenses, in two separate incidents. Supposedly, the arc generated microwaves that instantly dried the fluid between the eye and the lens, causing the cornea to bond to the lens. The rumor reports that, on returning home from work, the electrical worker and the welder removed their contact lenses along with the fused corneas, thereby causing permanent blindness.

These injuries cannot happen, said Harold Davis, secretary of the American Optometric Association's Contact Lens Section, in an article in *Occupational Health Nursing*.

"Most contacts are concave, so if anything, they diverge light. As far as melting the lens or drying up the fluid in the eyes, you'd have to stick your head in a blast furnace to do that," he said.

Davis also said that, even in the unlikely event that the contacts were dried to the eyes, the corneas would not be damaged because the eyes are covered by protective epithelial layers. Even if these cells were scraped off, they would regenerate within 72 hours.

According to the June 1983 issue of *Optometric Management* the rumor apparently originated in 1967, when a Baltimore shipyard worker suffered minor eye inuries after an electrical device exploded. He quickly recovered, a fact apparently overlooked.

Service Awards

The following employees received service awards during the month of April:

Forty Years

Marilyn C.Galli ..... Tech. Info.

Thirty-Five Years

Thomas F. Prach..... Reactor

Twenty-Five Years

David E. Cox ..... Physics
Frank A. Crifasi ..... S&EP
Harold E. Gassner ..... AGS
Edward A. MacDougall .. Nuc. Energy
Walter Schlichtcroll ..... Plant Eng.
Abe Seifert ..... NSLS
Werner Tramm ..... AGS
Josephine M. Weltz ..... SMD

Twenty Years

George H. Apelskog .... Central Shops
John R. Bennett ..... Applied Math
Alfred J. Deneuve ..... Applied Math
M. Kay Hunt ..... Personnel
Michael S. Makar ..... Medical
Lonnie B. Muldrow ..... Plant Eng.
Milton R. Saunders ..... Plant Eng.
Martin R. Van Lith ..... Physics

Ten Years

Harriet Allen ..... SMD
James Amandola ..... SMD
Anne S. Baittinger ..... Public Affairs
John Blydenburgh ..... SMD
George E. Bozoki ..... Nuc. Energy
Robert P. Browngardt ..... Plant Eng.
Bruce S. Brunschwig ..... Chemistry
Alfred L. Farland ..... Central Shops
Carol L. Joyce ..... Director's Office
Eugene R. Kelly ..... Accel. Dev.
Michael Schaeffer ..... Plant Eng.
Theresa C. Skelaney ..... Nuc. Energy
Daniel J. Spandau .... Applied Science
Toshifumi Sugama .... Applied Science
Larry Turf ..... Accel. Dev.
Peter E. Vanier ..... Nuc. Energy
Richard H. Vogel ..... S&EP
Susan M. White-DePace ..... NSLS
Fred A. Wunder ..... P&GA

The following employees were inadvertently omitted from those who received ten-year service awards in January and February.

January

John Klages ..... Plant Engineering

February

Keith Radich ..... Plant Engineering
Jeannette Thiede ..... Light Source
Gerard Van Derlaske .... Light Source

Plant a Tree For Arbor Day

Devoted to the planting of trees, Arbor Day was first observed in Nebraska in 1872. Today every state recognizes Arbor Day.

Governor Cuomo signed a new Arbor Day bill in May 1984, making it the last Friday in April in New York. Thus, for 1988, Arbor Day is today, April 29.

Trees offer protection from the glare and heat of the sun and from chilling winds. They form a canopy for outdoor activities, provide settings for buildings, and act as homes for many birds and animals. Trees also help control erosion of topsoil.

Why not plant a tree or trees in your yard for Arbor Day?

Equipment Demos

An equipment demo by Phillips Scientific will be held on Tuesday, May 3, in Berkner Hall, from 10 a.m. to 3 p.m. The products featured will be NIM-CAMAC-FASTBUS Instruments and some of their single-channel equivalents. Types of instruments will include discriminators, TDCs, ADCs, logic units, gate/delay generators, linear multiplexers, linear and amplifier products.

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The family of laster printers manufactured by Advanced Technologies International (ATI) will be demonstrated in Berkner Hall on Tuesday, May 4, from 10 a.m. to 3 p.m. Included will be ATI's 8, 15, 26-page-per-minute printers and Versatec V-80 Plotter. ATI representatives will be on hand to answer questions.

New Season Starting At Swimming Pool

Tickets for a new four-month pool season — May 2 through September 2 — will be sold at the pool during scheduled hours starting Monday, May 2.

Fees:

Season Tickets (fees not prorated)

Individual Membership	$30.00
*Family Membership	$40.00

Daily Admissions

employee	$1.50
*family member	$1.50
guest	$2.00

* Defined as family members living in the employee's household.

Schedule:

Monday through Friday

11 a.m. - 1:30 p.m.	employees only
1:30 p.m. - 2 p.m.	reserved for speed swimming & training
**5 p.m. - 9 p.m.	employees, families & guests

Saturday and Sunday

**1 p.m. - 5:30 p.m.	employees, families & guests

**Please note new hours.

The swimming pool is closed on all Laboratory holidays.

Guest Ruling (applies to all recreation facilities)

One guest — An employee is permitted one guest per visit without prior arrangements. The guest must be accompanied by the employee.

Two to five guests (no more is ever permitted) — Advance arrangements for two to five guests may be made at the Recreation Office, which will issue an admission card stating the sponsor's name and life number, the number of guests permitted, the date of visit and the facility to be visited. Guests must be accompanied by the employee, who must show the admission card at the main gate and the swimming pool ticket desk.

Cafeteria Menu

Week of May 1

Monday, May 1

Beef noodle soup	(cup)	.75
	(bowl)	.95
Veal steak Italian-style w/1 veg.		2.95
Chicken & green chili casserole w/1 veg.		2.95
Summer fiesta fresh fruit plate (lite-weight)		2.25
Hot deli: Roast breast of turkey	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Tuesday, May 2

Chicken rice soup	(cup)	.75
	(bowl)	.95
Western-style pork stew w/1 veg.		3.05
Baked fish supreme w/1 veg. (lite-weight)		2.95
Hot deli: Chicken patty sandwich on roll		2.85

Wednesday, May 3

Minestrone	(cup)	.75
	(bowl)	.95
Beef burgundy over noodles		2.95
Eggplant parmigiana w/1 veg. & garlic toast		2.85
Triple scoop salad plate (lite-weight)		2.25
Hot deli: Baked ham	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Thursday, May 4

Navy bean soup	(cup)	.75
	(bowl)	.95
Roast loin of pork w/1 veg.		2.95
Baked macaroni & cheese w/1 veg.		2.75
Chef's salad plate (lite-weight)		2.25
Hot deli: Pastrami	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Friday, May 5

Manhattan clam chowder	(cup)	.75
	(bowl)	.95
Country fried steak w/1 veg.		2.85
Fish New Brunswick w/1 veg. (lite-weight)		2.95
Hot deli: Sloppy Joes on a bun		2.85

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Basketball

Playoff Games

Game I

Penetrators	**54**	**Long Shots**	**41**
J. Cyr	13	T. Mayo	17
T. Abbott	12	J. Garrison	12
T. Comstock	11	F. Malone	5
R. Domenech	11	S. Springston	3
R. Tonkyn	7	G. Thompson	2
		J. Wells	2

Three Point Shots: Domenech (3), Garrison (4), Mayo

Game 2

Runaways	**62**	**Knicks**	**68**
P. Johnson	25	W. Cummings	23
T. James	8	Q. Harrison	13
J. Desmond	6	L. Walcott	12
S. Gilbert	6	M. Lawrence	9
A. Stillman	4	G. Thompson	6
R. Moran	3	M. Williams	3
B. Doty	2	T. Mendez	2

Three Point Shots: Cummings, Johnson (5), Moran, Thompson, Walcott, Williams

Championship Game

Knicks	**73**	**Penetrators**	**55**
W. Cummings	24	T. Comstock	19
T. Mendez	10	J. Cyr	13
Q. Harrison	9	R. Tonkyn	10
M. Williams	9	T. Abbott	6
T. McGill	8	R. Domenech	4
G. Thompson	6	G. Smith	2
L. Walcott	5	M. Piraino	1
M. Lawrence	2	R. Garappolo	0

Three Point Shots: Comstock, McGill, Walcott, Williams (3)

Basketball Champions

Meet the Knicks, the 1988 BNL Basketball League champions: (standing, from left) Lee Walcott, Tony Mendez, Mitch Williams, Quintin Harrison, Les Lawrence; (kneeling, from left) Tony McGill, Wayne Cummings — Captain, Greg Thompson; (missing from photo) Skip Anderson, Mark Lawrence.

—photo by Horton

Government Vehicles

If you drive government vehicles, even occasionally, or supervise those who do, Standard Practice Instruction 5-05 is of interest to you. Article III sets forth specific responsibilities of supervisors and drivers.

In addition, page 19 of the Employee Guide contains information regarding possession of licenses, as well as traffic rules and regulations for both private and government vehicles operated on site.

Aviation Club

A meeting to discuss proposed new airspace regulations will be held at 7 p.m. tonight in Berkner Hall. The meeting is sponsored by a number of flying organizations, including the BNL Aviation Club.

Bowling

Red/Green League

High games were bowled by K. Riker 233, H. Arnesen 229, F. Griswold 211, N. Combatti 209, C. Scarlett 209, R. Mulderig 206, E. Sperry IV 206.

White League

Ken Riker had games of 231/200 for a 602 scratch series, Pete Stelmaschuk 204, Jim Griffin 203, Maria Apelskog 201, Maryann Reynolds 192.

Purple League

Mary Addessi rolled a 214, Joyce Pinelli 193.

AACC Dinner Dance

The Afro-American Culture Club (AACC) will hold its annual Installation/Dwight C. Brown Memorial Scholarship Award Dinner Dance on Saturday, June 4, in the Brookhaven Center from 7:30 p.m. to 2 a.m.

The ticket price of $25 includes a cocktail hour from 7:30 to 8:30, dinner and music by ET.

For ticket information, contact Mary Durham, Ext. 7143; April Donegain, Ext. 2459; Fran Ligon, Ext. 3709; Bruce Penn, Ext. 7213; or Deidre Seymore, Ext. 5037.

Hospitality News

A morning coffee get-together will be held Tuesday, May 3, at 9:30 a.m., in the Brookhaven Center. All wives of employees and guests are welcome. Coffee, tea and danish will be served. Please come and bring the children. Babysitting will be provided free of charge. Bring along a toy for your child to play with.

Arrivals & Departures

Arrivals

Philip H. Baker Jr. ..... Plant Eng.
Peter J. Goebel ..... Plant Eng.
John E. McCarthy ..... DNE

Departures

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

Quintin L. Harrison ..... Plant Eng.

Mountain Club Sponsors Canoe Trip On Carmans River

The Mountain Club will sponsor a short trip down the Carmans River in South Haven on Saturday morning, May 7. We will launch canoes from Montauk Highway at 9:30 a.m. and start the approximately two-hour paddle to Beaver Dam Road at 10 a.m. Bring lunch.

The club has six canoes, which will be loaned on a first-come, first-served basis. You do the transporting. Everyone is welcome. If interested, call Don David, Ext. 4821 or 286-2267, eves.

Volleyball

Standings — Week of April 18

League I Playoffs

Upfagrabs defeated Dinkers

League II Playoffs

Set-Ups defeated Photons
Slammers defeated Upton Ups
Chunga's Revenge defeated Fossils

League III		**Open League**	
Printouts	47-16	Phoenix	45-9
Sourcerers	47-16	Dakota	44-10
Spikes	41-22	Serendipity	42-12
MISfits	33-30	Not Too Bad	22-32
Renegades	31-32	Rowdy Radicals	17-37
Screwballs	24-29	Duituits	11-43
Airheads	16-47	Leftovers	8-46
Good Times	13-50		

Peter Horton

Clinton (top) and Peter Cameron

Men and Women Care About Day Care

At lunchtime on Fridays, Engineer Peter Cameron leaves his three-year-old son Clinton for the afternoon in the care of the wife of a guest scientist living on site. Clinton then spends part or all of the weekend with his father.

Unfortunately, Cameron's child-care arrangement is only temporary: The guest scientist has accepted a permanent Lab position and, thus, will be moving off site. "I'm looking for another sitter for Clinton, but, so far, haven't found one," reports Cameron, who works at the Alternating Gradient Synchrotron.

Child care concerns men as well as women: Men have become more involved in the care of their children, especially single fathers and men whose wives work outside the home. According to a recent national survey, more working fathers than mothers have given up a job, promotion or transfer because of their family responsibilities.

BNL employees and guests — men and women — whether or not you have children who require supervision while you are at work, please complete your Child-Care Survey and return it today to: Child-Care Survey, BNL Mail Room, Bldg. 179B. If you threw out your form but would like another copy, please contact Child-Care Initiative Committee members Ruth Coughlan, Ext. 5060, or Susan Foster, Ext. 2888.

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.

2847. MATERIAL HANDLERS - (temporary 6/13/88 - 9/2/88) Supply and Materiel Division.

2848. CLERICAL POSITION - Requires good knowledge of office practices including IPAP/J-CARS data entry system. Previous experience involving A/P and billing desired. Familiarity with word processing helpful. Additional duties to include distribution of mail, typing and telephones. Accelerator Development Department.

2849. MATERIAL HANDLER (2 openings) Supply and Material Divison.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2850. SCIENTIFIC ASSOCIATE POSITION - (1 year appointment) Requires BS in physics, electrical engineering or computer science and knowledge of electronics, statistics and the IBM PC. Must have excellent written and verbal communication skills. Duties include making and analyzing measurements of electrical properties of apparatus under fabrication. Physics Department.

2851. ENGINEERING POSITION - Requires BS/MS in electrical engineering, physics or chemistry to work in the area of R&D of semiconductor radiation devices. Experience with mask design, fabrication and interfacing techniques with suppliers is essential; experience in integrated circuit design or processing is helpful. Will work in processing area for silicon devices which requires knowledge of microcircuit technologies, including oxide growth, lithography, wet processing and vacuum deposition of metals. Physics Department.

2852. SR. STATIONARY ENGINEER - Requires demonstrated experience in the maintenance, repair and operation of high pressure boilers firing #6 fuel oil. Current stationary or marine engineer's license highly desirable. Plant Engineering Division.

2853. TECHNICAL POSITION - Requires an AAS degree in electronic technology or equivalent. Must be experienced in the construction, test, repair and maintenance of rf equipment. Experience with digital circuitry and power supplies desirable. Alternating Gradient Synchrotron Department.

2854. TECHNICAL POSITION - Requires an AAS in electronic technology or equivalent. Responsibilities include fabrication, testing and installation of analog and digital circuits for AGS Booster instrumentation. Experience with rf a plus. Accelerator Development Department.

Autos & Auto Supplies

83 BUICK REGAL - a/c, p/s, am/fm, beige landau top, excel. cond., mint, $5,700 neg. Ext. 2964.

84 CHEVETTE - new tires, a/t, am/fm cass., excel. cond. 878-0874 after 5 p.m.

85 PONTIAC TRANS AM - white w/black & grey int., T-tops, p/w, p/l, mint, $10,500. Pete, Ext. 7527.

82 DODGE 024 - hatchback, good cond., asking $2,000. 281-5073 7 p.m.-9 p.m.

81 MERCURY LYNX - 2 dr., high-mileage, 4-speed, $900 neg. Sarah, 288-9086 after 2 p.m.

81 HONDA-GL GOLDWING - 1100cc, black, 16k mi., $1,800 neg. 732-7723 days.

69 & 70 VW GHIAS - good engines & interiors, need body work, best offer. Ext. 5110 or 399-3087.

66 LINCOLN CONTINENTAL CLASSIC - 43k orig. mi., all power, 4 dr., orig. owner, garaged, excel. cond., $3,500. 924-3431 or 924-3783.

TRAILER CAR CARRIER - home-made, as is, $200 or best offer. Pete, 399-2813 after 5:15 p.m.

70 HOLIDAY TRAVEL TRAILER - 22', dual axel, self-contained, sleeps 6, excel. cond., 12-volt converter. Ext. 3270 or 758-4018 after 5 p.m.

78 FORD WINDOW VAN - excel. work van, 6 cyl., p/s, p/b, needs work, $400. Bob, Ext. 4446 or 654-3989 after 5 p.m.

79 FORD PINTO WAGON - 4-speed, am/fm, 94k mi., reliable, good cond., $625 neg. Graham, Ext. 4253 or 331-4171.

TIRES - 2, Dunlop, Gold Seal, belted, P215/75B15, $30; 2, Volvotums, $20. Bill, Ext. 3369 or 928-6442.

77 CADILLAC SEDAN DEVILLE - white w/red leather int., new tires, excel. cond., $2,000. Jim, Ext. 4040 or 289-0876.

SLIDE-ON CAMPER - 11', self-contained, oven, gas/electric refrig., king size bed, must sell, $2,200. Ext. 4142 or 345-3915.

80 MERCEDES BENZ 240D - excel. cond., $8,000. Ext. 4112 or 727-1782.

88 CHEVY PICK-UP - must sell, 4x4/2500 Silverado western plow, running boards, loaded, $18,500. 734-7325.

86 SUZUKI SCOOTER - low mi., excel. cond., $300. Jim, Ext. 3372 or 821-0250.

86 TOYOTA MR2 - white, fully loaded, excel. cond., asking $11,500. Donna, Ext. 4764 or 821-2875.

86 VOLVO, 240DL - St. wg., factory guarantee, a/c, r/td, alarm, 54k mi., asking, $13,900. 751-5467 or 632-8272.

84 CAMARO - p/s, p/b, a/c, 5 speed, stereo, new tires, many new parts, $5,500. Paul, 286-2517.

84 CHEVETTE - am/fm cass., a/t, new tires, excel. cond., $2,900. 878-0874 after 5 p.m.

84 FORD MUSTANG - excel. cond., console, am/fm tape, p/s, a/c, sunroof, alum. wheel, st. trans., asking $5,400. Ext. 4846 or 363-6940.

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

84 RENAULT ENCORE - 4-drive, a/c, 53k mi., mint cond., $2,800; 74 Volvo, runs well, $700. Torsten, Ext. 3817 or 878-1210.

83 NISSAN SENTRA - high mileage, very good cond., great trans. 289-3916, leave message.

83 FORD LTD - wagon, fully loaded, cruise, tilt s. wheel, dome map, lights, engine light, tilt seats, carrier undercoated. Ext. 2384 or 475-1916.

83 NISSAN SENTRA - 5-speed, am/fm cass., good cond., must sell, $3,000, neg. Tina, Ext. 3319 or 924-0756 eves.

81 LINCOLN MARK VI - signature series, black/gray, 2-dr., loaded, all options including moonroof & CB radio, $6,950. Fred, Ext. 3259 or 473-8622.

81 OLDS OMEGA - p/s, p/b, a/t, a/c, rebuilt trans., $1,200. Marek, Ext. 3285 or 4407, eves., Ext. 3073.

81 CHEVY MONTE CARLO - a/c, am/fm stereo, 82k mi., very clean, dependable car, $1,800, neg. Saeed, Ext. 4339 or 282-2862, Rm 8.

80 CHEVY MONZA - 4 cyl, 4-speed, looks good, needs some work, $950. Ext. 2175.

80 TOYOTA CELICA GT - 5-speed, sunroof, cass., good cond., runs fine, $1,700. Bill, Ext. 2378 or 758-3284.

79 CAPRICE - a/t, a/c, am/fm cass., body very good, 79k mi., may need valve job, asking $700. Ext. 4118 or 928-5714.

79 MUSTANG - p/s, p/b, a/c, am/fm, cass., good cond., asking $2,000. Ext. 2175 or 399-0224.

78 SUBARU BRAT - body, mechanics in excel. cond., new tires, sport rims, am/fm cass. Ext. 3293.

78 SUZUKI 750GS - many good parts, $120. Bob, Ext. 5010 or 289-2986.

77 TOYOTA CELICA GT - 87k mi., good tires, good mech., needs radiator, $975. Rick, Ext. 3932, 472-9789.

77 MERCURY MARQUIS - runs, $200; two 15-75 R/15 Michelin, pair, $50. Sam, Ext. 4023/5211 or 929-3721.

77 DATSUN 810 - runs well, new brakes, new tires, p/b, p/s, $625.00. 286-0682.

77 OLDS - p/b, p/s, rebuilt trans., runs well, $1,000. Ext. 4144 or 324-8475.

76 FIREBIRD - good cond., $1,000. Robin, 475-5591 after 6:30 p.m.

75 GRANADA, 302, V-8, rebuilt trans., car always garaged, excel. cond. Ext. 3293.

75 FIATS - two, X19, one runs, second for parts, $200. Bob, Ext. 5010 or 289-2986.

74 LE MANS PONTIAC - eight passenger station wagon, $800. 473-1456.

74 VW SUPER BEETLE - runs well, new tires, $275. 821-0686.

73 VW 412 - 4 dr., a/t, rebuilt engine, runs well, $250. Yang, Ext. 3663 or 924-1376.

72 YAMAHA 650 - new tires, battery, many extras, good cond., $275. Kevin, 281-8031.

72 DODGE DART - $800, neg. 286-3334.

71 OLDS TORONADO - all power, good ties, needs p/s pump, $500. Ext. 4424 or 289-3316 eves.

CAMPER TRAILER - Travlite mini pop-up, sleeps two, dinette, can be towed by motorcycle or subcompact car, w/extras, $1,000. Dick, Ext. 3273.

14' TRAVEL TRAILER - Scotty, oldie but goodie, stove, ice box, toilet, sleeps five, ideal for 4 cyl. vehicle, $600. 878-2239.

TIRES - 4 General radials, P185/75R14 mud & snows (less than 4,000 mi.), asking $120. Ext. 7562.

FORD RIMS - 15 x 6", 5½" bolt circle, 4/$10; '69 Mustang fender, $20; '65 Mustang 2 + 2 rear glass, $25. Ext. 3803.

MAZDA TRUCK CAP - excel. cond., $650. Pete, Ext. 4659.

ATV H.D. PIPE FRAME - & running gear, very good shape, needs engine, ask. $200, neg., includes tow bar. 929-4522.

Boats & Marine Supplies

20' IMPERIAL - 1984, cuddy, 140 h.p., I/O, excel. cond., low hours, full canvas, extras, $8,500. Dennis, 736-5736 after 5:00.

BAYLINER BOWRIDER - 1984 mint, 125 h.p., Volvo I/O, used 100 hrs., fully equipped, $6,800. Ext. 2981 or 424-6916 eves.

25' BAYLINER - 1975 Saratoga w/225 HP Volvo sterndrive, galley, head, tabs, VHF, am/fm stereo, full camper back, more. 281-5364.

38' DOWN EAST BOAT - 1974, work or pleasure, diesel, low hrs., 473-8716.

WINCH - for boat trailer to 20', $50. 363-6845.

14' BLUEJAY SLOOP SAILBOAT - w/trailer, as is, best offer. Ext. 7657 or 924-2933.

22' SEAFARER SAILBOAT - 1974, 3 sails, Volvo outboard, full keel, neg. from $4,000. Fred, Ext. 4407 or 4435 or 499-1214.

CHAIN - ½" galvanized mooring, proof coil, $2.25 per foot. Ext. 5314 or 399-1679.

27' TARTAN - 9 sails, VHF-FM D.F./RDF autohelm, compass, refinish topside, many extras, documented. 669-9202 after 6 p.m.

18' VIKING CABIN CRUISER - 140 h.p., Evinrude Shoreline trailer, mint cond., asking $8,900. 331-1754 after 6 p.m.

GENTEX RACING LIFE PRESERVER - white & blue, one large & one medium size, $30 for both. Ext. 2981 or 744-1440.

WATER SKIS - Ski-Master 57, fiberglass & metal, small O'Brien water vest, used once, $65. Ext. 2981 or 744-1440.

20' HURLEY SAILBOAT - sleeps 4, 9.9 Evinrude cradle/cover/mooring complete, mint cond., $10,000. Hubert Frank, Ext. 3499 or 271-1773 eves.

SAILFISH - excel. shape, yellow, $300. Ext. 3428 or 427-6738 eves.

14' DURANAUTIC - 20 h.p. Johnson electric start, tuned 8/87, trailer, great bay boat, extras, $875. 929-8641.

Miscellaneous

LINCOLN WELDER - portable, gas, 2 cyl., 225 amps, like new, early 80's, $1,500; assorted hand tools. John, 884-3228.

VITAMASTER EXERCISE TREADMILL - non-electric, heavy-duty, 3-years-old, excel. cond., $100 or best offer. Ext. 2198 or 744-4662.

MAMIYA/SEKOR 35MM CAMERA - case, 3 lenses, close-up attachments, $75. Brian,. Ext. 2799 or 757-1581.

MEN'S SHIRTS - short sleeve, size 15, new, $5/each. Susan, Ext. 7716.

RICKELS MOWER - 21" cut, rear-bag, $80. Dan, Ext. 4987 or 698-7322.

SOFA - coffee table, end table, $150. Ext. 4986.

IN-GROUND SWIMMING POOL EQUIPMENT - 16' slide, curved, $150; stainless steel ladder, $40; 10' diving board, $75. Tony, Ext. 2462.

TENNIS RACQUETS - used but good cond. G. Williams, Ext. 3338.

SEARS LAWN MOWER - push, side-bag; 20" magnesium, $35; nylon carpet, 10'x10"x11', orange print, $75. Ext. 3369.

LAWN BOY MOWER - 21" cut, 2-cycle trans., ignition, new bag, $125. Dan, Ext. 4987 or 698-7322.

ROGERS DRUM SET - 5-piece, chrome; Hammond organ, sounder w/electronic rhythm section, $200. 277-2671 after 6 p.m.

BUILDING MATERIALS - used, deck lumber, doors, 4'x8' Andersen window, you pick up, make offer. Fred, 261-5735.

OUTDOOR FURNITURE - redwood, 33"x72" table w/2 benches, $200; 48" round table w/2 benches, $180. Ext. 4690 or 265-5218.

GREEN HOUSE - poly type, 22'x100', furnace, fan, sprinkling & watering system, $2,700; 1 gas & 1 diesel tractor. Ext. 4040 or 289-0876.

POOL TABLE - w/many accessories, $300. Ady, Ext. 4531 or 331-3785.

OLD CAMERAS - slide screen, light meters, projector, splicer, rotary tray, slide rack, flash bulbs, cheap. 475-1254.

FRIGIDAIRE FREEZER - 100% frost-proof, 15.7 cubic ft., model UFP-16H, good cond., $300, neg. 281-7993 after 6 p.m.

MOVING SALE - entire contents of house. 821-0840 eves.

FRESH FLOWER ARRANGEMENTS - in Mother's Day mug, $15; other arrangements also, delivery available, 821-1560.

TICKETS - 2 ea., Pointer Sisters, Westbury Music Fair, Sunday, May 15, 7:00 p.m., $55.00 both. Rosalie, Ext. 3160.

WHITE AZALEAS - three, approx. 4 ft. dia. 689-9234, eves.

G.E. REFRIGERATOR - 17 cu. ft., copper-color, very good, $200. 281-7844 eves.

ORIENTAL RUG - 8' x 6', fine Haraki, Turkish. 821-0840 eves.

AIR CONDITIONER - used one season, $10. 475-1254.

PROM DRESSES - new, never used, reasonable, 13/14, 9/10, 7/8. 563-2889 after 6 p.m.

FUR JACKET - mouton lamb, excel. cond., size 14-16, $65. 475-1826 after 6 p.m.

ANTIQUE OAK DRESSER - $100; assorted bookshelves, $5/ea; fabric & chrome bench, $30. Ext. 2007 or 751-1475.

SPEAKERS - Magneplaner, MG-11c, 18-mo.-old, in original carton, $600. Ext. 2955.

Yard Sale

GROUP YARD/GARAGE SALE - Halsey Manor Rd., Manorville, 4/29, 4/30, 5/1, large variety, rain or shine.

Free

Parakeet - w/cage, stand, supplies, cover, food. Ext. 2168 or 744-4948.

KITTENS - 2 gray, 1 calico, avail. in 2 wks., 4 wks. old. Ext. 4194 or 286-7984.

ARMCHAIR - comfortable, old. 751-3062.

Lost & Found

FOUND - man's bifocals, metal frame, in Bldg. 130, Conf. Rm. on 4/5. Jim, Ext. 2432.

Car Pools

BELLPORT - 1 driver needed to complete car pool, prompt, 8:30 a.m.-5:00 p.m. Joe, Ext. 3569 or Fritz, Ext. 2348.

BAYPORT/BLUEPOINT - need 1 driver. Phil, Ext. 3500 or 363-2070.

PATCHOGUE - van pool, seat open, leave name & number. Ext. 4669.

BOHEMIA/OAKDALE - 2 drivers needed. Frank, Ext. 2314.

On-Site Services

FRIENDLY GULF SERVICE WEEKLY SPECIAL - engine tuneup, electronic ignition, filter checked, 4 cyl., $42.95; 6 cyl., $47.95; 8 cyl, $49.95. Ext. 4034.

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 HAMLET - rm., share entire spacious house w/2 professionals, 4 bdrm., 2 bath, ¾ acre, wooded, $350 incls. all. Sydney Stafford, 286-4028.

BELLPORT VILLAGE - 1 bdrm. apt., non-smoker, avail. immed. 286-1489 eves.

LONDONDERRY, VT - 4 bdrm. Chalet, 2½ bath, stone f/p, sauna, on pond w/beach, swimming, boating, hiking, tennis, near music, theatre, antiques, Bromeley slide, VT charm, $500/wk. 757-5599.

LAKE PLACID, NY - modern 2 bdrm. A-frame, loft, sleeps 8, fully furn., near swimming, boating, golf, tennis, hiking, more. 757-1775 after 8 p.m.

CALVERTON - 2 bdrm. townhouse, central a/c, f/p, patio, upper deck, w/w, 5 appl. 878-0874 eves.

STONY BROOK VILLAGE - 4 bdrm., d/r, den, playrm., screened porch, garage, walk to SUNY, LIRR, beach, non-smokers, no pets, avail. 7/15, lease to 8/30/89, $1,250/mo. 751-7935.

MORICHES - waterfront room in shared house, avail. June 1, $330/mo. + util. 874-3729 eves.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, beach, pool, golf, tennis, April-Sept. $420/wk. 585-9147.

BROOKHAVEN HAMLET - 3 bdrm. house, quiet, fenced area, close to Lab, $775/mo. + util. 281-3479.

For Sale

STONY BROOK - 4 bdrm. ranch, 2 bath, European gourmet kitchen, central a/c, 2-car garage, Pella rm., ½ acre, sprinklers, many extras, $219,990. 751-7023 eves.

MASTIC - 3 bdrm. ranch, eik, Florida rm., all appliances, fp w/built-in bookshelves, part. finished bsmt., brick front, front & rear brick patios, ½ acre, $110,000; neg. for cash buyer. Ext. 5054/3969 or 286-5897, leave message.

MILLER PLACE — North of 25A, 3 bdrm., custom ranch, entertainment area, l/r, family rm., custom f/p, 24'x26', 2-car garage, finished bsmt., much more, $219,000. Ext. 3353 or 473-5786.

RIVERHEAD - mobile home in adult park, over 55, 2 bdrm., 1½ bath, waterview on Peconic River, new floors, carpeting & bath, $35,000. 369-2838.

N. WADING RIVER - 3 bdrm. ranch, eik, d/r, l/r, full-size bath w/skylight, solar panels, energy efficient construction, $149,500. Ext. 7105.

FT. SALONGA/KINGS PARK - sprawling 4 bdrm. ranch, panelled den w/fp, bsmt., large brick patio, 2-car garage, wooded area, close to beach, $229,900. 269-1093.

PORT JEFFERSON - Harbor Hills, 3 bdrm. Colonial, l/r w/fp, d/r, eik, 2½ baths, near beach & country club, fenced yard/patio, $210,000. 473-4668.

PORT JEFFERSON - Harbor Hills, 3 bdrm. ranch, 3 baths, wooded golf course setting, balcony, deck, patio, 2-car garage, 3-zone gas heat, $259,900. Ext. 3791 or 928-7154 eves.

PORT JEFFERSON - Harbor Hills, 4 bdrm. split ranch, d/r, eik, family room w/fp, brick patio, winter waterview, 24'x44' bsmt., excel. cond., $199,000. Ext. 4483 or 473-3689.

HOLIDAY, FL - sandpiper, 3 bdrms., 2 baths, oversize garage, corner lot, cathedral ceilings, laundry rm., clubhouse facilities, asking $80,000. 744-3568.

STONY BROOK - mint 4 bdrm. Colonial, 2½ baths, eik, d/r, l/r, 2-car garage, new siding, Andersen windows, ½ acre, 3-Village school district, asking $225,000. 689-8605 eves & wknds.

RIDGE — mint 3 bdrm. L-ranch, ⅓ acre, new bath, full bsmt., 2 decks, pool, washer & dryer, dish, oil-hot water, Efel coal stove, 3 miles to Lab, asking $130,000. Ext. 7772 or 744-8581.

HILTON HEAD, SC - 3 bdrm. condo, sleeps 8, 2 baths, washer/dryer, wet bar, 6 tennis courts, 3 pools, whirlpool, golf, ocean view, asking $89,000 or will rent. 929-8912.

SETAUKET - north of 25A, 6 rm. Cape, 2 baths, 2-car garage, wooded area, 3-Village schools, asking $190,000. 751-1401.

Wanted

BABYSITTER - for 20-mo.-old girl, my home, on-site, Mon.-Thurs., 8:30 a.m.-4:00 p.m. Miriam, Ext. 3186.

PART-TIME SITTER - for 3-yr.-old boy, Fri. afternoons. Ext. 7657 or 924-2933.

COTTAGE/APARTMENT - near Lab, for single male, w/no pets. Frank, Ext. 5222 or 395-4974 after 6 p.m.

APARTMENT - 2-3 rooms, for couple, starting mid-May, year-round, Smithtown/Ronkonkoma area. Debbie, Ext. 2602.

COMMODORE 64/1541 DISK DRIVES - dead or ailing units for parts/spares. Henry, Ext. 5110 or 399-3087.

SUMMER HOUSING - 1 person, Eastern Suffolk preferred, around $250 mo. Ext. 4144.

RIDE - needed to Boston area and back, weekend of May 6, will share expenses. Ext. 3592.

FRONT OF BODY - (header) for 1972 Olds Delta 88. Ext. 2500 or 661-6078.

SOMEONE TO WEED FLOWERBEDS - 2-3 times per month, Ridge. Diana, Ext. 3379.

MOTORS - 5 h.p., Briggs & Straton horizontal shaft motors, any cond. John, Ext. 4034.

HOUSEMATE - male, Rocky Point, beautiful waterview, own room + use of house, $450 + sec. incls. all. 744-9519.

HOUSE/APARTMENT - 3 or 4 bdrm., 1½ baths, l/r, d/r, kitchen, washer/dryer, family neighborhood, June. 914-234-0907.

HIGH SCHOOL STUDENT - for lawn mowing & other seasonal labor in Bellport Village home. 286-3742 eves. & wknds.

GROUNDS WORKERS - landscape gardener, Westhampton area, needs mowers & waterers, F/P.T. 447-1098 after 8:00 p.m.

BOBCAT/CEMENT MIXER/WET SAW - to buy or rent. Tony, 698-9274.

SUMMER HOUSING - for visiting couple, furnished, 1-2 months, starting July or Aug. Tang, Ext. 3869 or 5186.

DROP-LEAF TABLE - closed about 30x35, fully opened about 45x90, needs to sit 8 or 10. 727-3608 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.