BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Beaming In On The Beam

Since the Alternating Gradient Synchrotron (AGS) began operating in 1960, the high energy physics research conducted there has reaped many awards, including two Nobel prizes. But the plans now in process for its future show that the AGS is not about to rest on its laurels.

The H- injection system which begin operating in September, provides for a totally new way of sending protons to the AGS ring. When polarized protons begin to circulate in the AGS in 1984, most of the beam's particles will be oriented in the same direction of spin. And when the AGS becomes an injector for an even larger accelerator, the proton beam must be more intense than ever before.

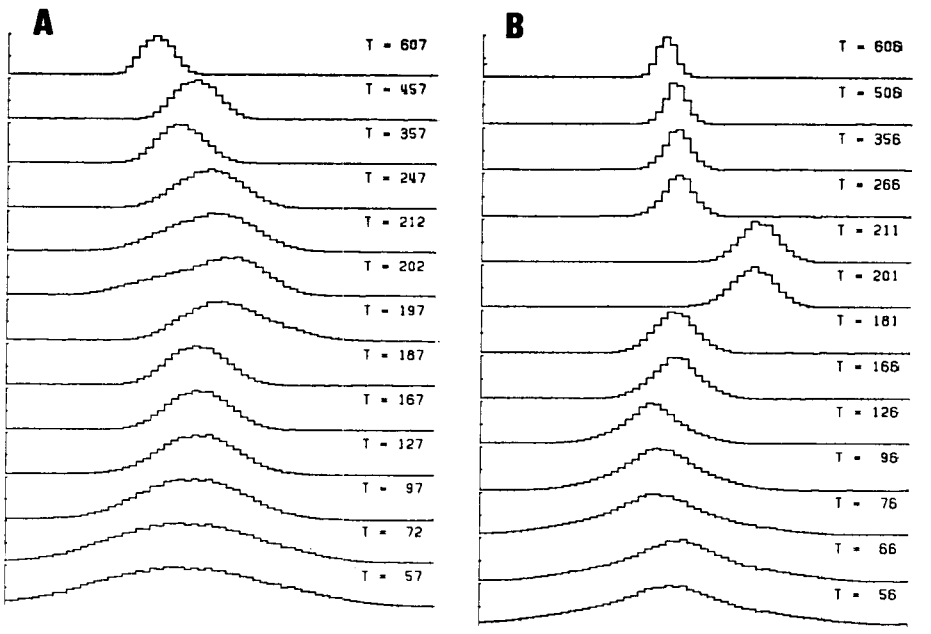
"For each of these things, one of the most basic parameters you would like to understand is how big the beam is," said physicist Howard Weisberg. But how can beam size be determined when the beam cannot be seen? This question intrigued Weisberg who felt, "It would be nice to be able to 'see' the beam in some sense. That is something we haven't been able to do before."

To "see" the beam, Weisberg proposed building a device that he called the Ionization Profile Monitor (IPM). Even though the AGS ring is evacuated, some residual gas remains during acceleration. For IPM purposes, a small amount of additional nitrogen gas is introduced in a controlled leak. As the circulating beam passes through that point in the ring, the protons collide with the gas, causing some gas atoms to ionize (lose an electron). An electrode pulls the loose ions to a parallel strip detector — a series of rods resembling a picket fence. Each rod is electronically connected to a computer which records the frequency with which it is hit by an ion. When this data is analyzed, it yields a profile of the beam's emittance — essentially a measurement of the beam's size and a very important parameter of the accelerator.

After describing this concept in a report last July, Weisberg received project approval in the fall. By January he had assembled a group assigned to build and test an IPM by the end of June.

In those six months, Weisberg said, "A lot of people really went out of their way to get it done in time. They worked as long as was needed, day and night." The most critical moment came after the equipment was installed. When it malfunctioned after working hours, technicians came back to the AGS and worked all night to repair it. This action made it possible to finish testing the IPM before June 30, when the AGS ceased operations until September.

Horst Foelsche, head of the AGS Division, said, "The tests have shown that the IPM is doing the job. It is looking very good. This is a crucial device because, for the first time, we will be able to monitor the internal workings of the beam with precision."



Taken by the IPM, these horizontal profiles show the emittance of the AGS beam in two different tests. Each line of a profile depicts the beam at one particular time (in milliseconds - ms) during the acceleration cycle. About 50 ms after injection starts, acceleration begins in the AGS. The full cycle takes about 600 ms. Profile A was taken during normal AGS operation of 9×10^{12} protons per pulse. Note how the the beam gets wider at T=197 as a result of phase transition. This critical point in acceleration initiates at around T=190 and requires some manipulation of the beam to assure successful passage. Once past this point, the beam again narrows and becomes more concentrated. Similar beam activity is shown in profile B, taken during a special test simulating design conditions for Project ISABELLE injection, but with relatively low intensity (2×10^{12} protons per pulse). To get through phase transition in this test, the beam was made to move sideways.

By September, when the IPM will be called upon to monitor the beam produced by the new H- injection system, that precision will be doubled. The equipment that was just tested measures only the horizontal profile of the beam. Weisberg's group is now building a second unit to measure the vertical profile. The new IPM will be a twin to the first one, rotated on its side.

Although the IPM was intended to complement the plans for the AGS' future, it has already shed light on the accelerator's past. Initial test profiles of the AGS beam show that the beam

(Continued on page 2)

Patent Awarded

Louis G. Stang, DNE, has been awarded U.S. Patent #4,311,409 for inventing a wet powder seal for gas containment.

The problem of confining a gas in underground structures is encountered in various forms. A buried gas pipeline or holder may develop a leak because of corrosion or rupture resulting from ground settlement or earthquake. Such a leak obviously requires the application of a seal. There is also a need to construct low-cost underground gas reservoirs and storage cavities for isolating nuclear waste. Such buried formations should preferably be made fail-safe against gas leakage caused by ground movements or earthquakes. Similarly, it is desirable to bury gas pipelines in trenches that can provide a sealing sheath against the escape of gas in the event of a pipe-fracture or joint leak.

Stang's invention provides a method for making a simple and easily formed seal for confining gas in underground structures. It utilizes readily available and inexpensive materials in forming such a gas seal, and it also provides an underground gas storage structure that is not ruptured by ground settlement or even an earthquake.

A gas seal is formed by a compact layer of an insoluble powder and liquid filling the fine interstices of that layer. The smaller the particle size of the selected powder, the finer will be the interstices or capillary spaces in the layer and the greater will be the resulting sealing capacity, i.e., the gas pressure differential which the wet powder layer can withstand. The sealing capacity of the wet powder seal can be augmented by the hydrostatic head of a liquid body established over the seal.

(Continued on page 2)

For Better Water Management

One of Long Island's most fragile resources, its groundwater, is the subject of a new $500,000 Environmental Protection Agency project aimed at consolidating the diverse and fragmented data presently available on this subject. The major goal of the project, whose principal investigators are Janakiram R. Naidu, Safety and Environmental Protection Division, and Edward Kaplan, Department of Energy and Environment, is to develop a management information system and set of analyses that can be used by regional planning boards to study the groundwater systems in their particular areas.

One of the main reasons that Long Island was chosen as a test site for this study is the extensive amount of data that has been collected regarding its groundwater supply. Long Island is recognized by the federal government as being a sole source aquifer, which means that groundwater is the only source of drinking water for the area. This is a cause of great concern to area residents and has led to a large number of studies by different agencies on the hazards to, and management of, groundwater supplies. One problem has been a lack of coordination between these sources of data, which is where the Brookhaven scientists enter the picture. With a great deal of experience in groundwater monitoring here on site, and the facilities of the Laboratory at their disposal, Naidu and Kaplan believe that they are in a position to provide the EPA with a methodology for coordinated data base management and analyses, the results of which will be useful to monitoring agencies both in the area and across the country.

Doug Humphrey

Janakiram R. Naidu (left) and Edward Kaplan are examining a map of Long Island showing the relation of land use to groundwater quality.

Two of the major threats to groundwater supplies on Long Island are landfills and the overuse of fertilizers. Landfills are the only large scale means of waste disposal, which has led to problems with landfill leachates. When it rains the water seeps down through a landfill, dissolving and carrying chemicals with it, in a manner analagous to hot water being poured over coffee grounds. This chemical bearing water is known as leachate and can cause serious problems when it enters the groundwater supply.

Fertilizers are another source of potential contamination of the water supply. In a quest for greener lawns Long Island homeowners often overfertilize their yards. This can lead to excess chemicals leaching down through the soil and into the aquifer.

Expressing his concern over these and other potential sources of contaminants, Kaplan said, "Ten years ago everyone was concerned about phosphates. Phosphates pale in comparison with some of the chemicals that are now going into landfills and the soil." Even seemingly harmless household products can contain chemicals that when leached off and into the water supply can prove harmful.

One of the end results of the study will be, "the production of a handbook that the EPA can use in other aquifer systems," said Naidu.

"We're not just developing a management system, we're also showing people how to use the system for analysis of their groundwater situation," added Kaplan.

One aspect of the handbook which is crucial to its overall effectiveness is that it will show communities "how to use a minicomputer to handle this type of diverse information," said Naidu. Previous work in the area of management systems was based on the availability of large computing facilities. Making the new system workable on a smaller scale will make it practical for use by smaller communities which do not have access to more elaborate computers. Local planners will now be able to use computer models to follow the migration of persistent molecules such as aldicarb, a pesticide, and trichlorethane, a degreaser, which have only recently become traceable through advances in monitoring technology.

The completion date for the study, which originated in the Safety & Environmental Protection Division under the direction of program manager Charles Meinhold, is October of 1983 and the delivery date for the handbook is December of 1983.

—Derek McCalmont

Mort Rosen

Gathering to celebrate the successful completion of the first IPM are some of the people involved in its construction: (front row, from left) Siegfried Naase, Mort Czaja, Raymond Zaharatos, Harold Alexanderson, Gordon Rackett, Y.Y. Lee, Nicholas Guglielmino, Nick Acampora, Charles Trabocchi; (standing, from left) Richard Skelaney, William Taylor, Horst Foelsche, Edward Gill, Howard Weisberg, Erwin Rodger, Nicholas Parrinello, James Faughnan, John Klug, Michael Zguris, John Grisoli, John Sullivan, Jr., Joseph Roecklein. Not pictured: Rodulfo Alforque, John Dabrowski, Everett Harris, Peter Ingrassia, Douglas Mitchell.

Patent (Cont'd)

Any insoluble and inert solid material in powder form may be used to form the gas seal of this invention. Fine sand, fly-ash and pulverized minerals and glasses are often available at low cost. Clearly, the smaller the particle size of the material selected, the greater will be the maximum gas pressure differential attained by the wet powder layer.

As a practical matter, water would be one of the best liquids for filling the interstices of the powder layer because it is inexpensive, abundant, readily available and has a higher surface tension than that of numerous liquids such as alcohols. Sea water and salt solutions may be advantageously used because salts generally increase the surface tension of water. Moreover, salt solutions have lower freezing points than that of water.

Kids At The Pool

Last Friday's special at the swimming pool featured the annual penny fetch. The happy winners were:

- Ages 4 and 5 — 1st, Vanessa Murdock; 2nd, Heidi Abrams; 3rd, Jason Jackson
- Ages 6 and 7 — 1st, Keith Chan; 2nd, Debby Tighe
- Ages 8 and 9 — 1st, Karen Mills; 2nd, Kina Thomas; 3rd, Christine Evans
- Ages 10 and over — 1st, Greg Holden; 2nd, Niru Thomas; 3rd, Sharah Thomas

Specials are held each week from 3:15 to 4:30 p.m., and children of all employees are welcome to participate. Coming events include kickboard races today and relay races next Friday.

Nursery School

On Wednesday, July 28, the Upton Nursery School will have an enrollment day at the cafeteria. From 11:45 a.m. to 12:45 p.m., one of the school's teachers and the enrollment chairperson will be on hand to speak to parents who wish to enroll their children for the school term beginning September 13.

The school is located on site in the housing area. Classes are offered two or three mornings a week for three and four-year-olds.

No Bus Stop

The bus service from the apartment area to Port Jefferson and Smith Point every Wednesday and Thursday has been cancelled due to lack of response.

NYC Train Trips

The Hospitality Committee is planning two group railroad trips to New York City: a regularly scheduled trip on Wednesday, August 4, and a special trip on Saturday, July 31. For both trips, round-trip fare for adults is $3.50 and children under six ride free. Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973. Please make checks payable to "Brookhaven National Laboratory" and put the date of the trip on your check. Tickets will be given out on the train. Details for each trip are as follows:

Regular Trip
Trip date - Wednesday, August 4
Departure - 7:55 a.m. from Patchogue LIRR station
Reservation deadline - Thursday, July 29
Cancellation/refund deadline - Monday, August 2

Special Trip
Trip date - Saturday, July 31
Departure - 8:31 a.m. from Patchogue LIRR station
Reservation deadline - Wednesday, July 28

Early Pool Closing

On Wednesday, July 28, closing time at the pool will be 7 p.m. The normal 9:30 closing will resume the following evening.

AGS Beam (Cont'd)

spreads out about one-third of the way through the acceleration process (see profiles page 1). "This fact may explain some of the problems we've had in the past," said Weisberg. The IPM can be used as a diagnostic tool to see if attempts to change the beam's size and shape are working. That is the beauty of the IPM. As Weisberg explained, "Once you can see something, then you can start working on controlling it."

— Anita Cohen

Arrivals & Departures

Arrivals

None

Departures

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

Douglas M. Brenner ..... Chemistry
Alexander Herman ..... Accelerator
Gordon E. James ..... Reactor

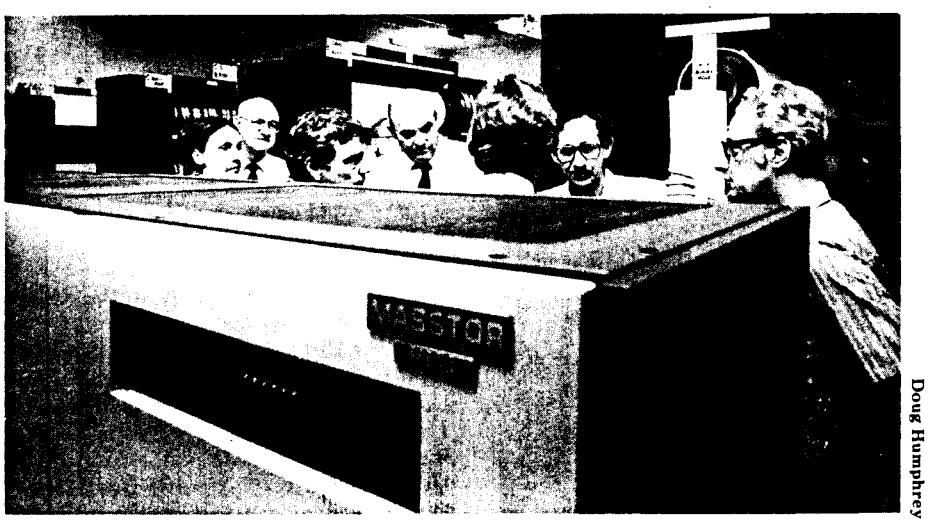
Cafeteria Menu

Week Ending July 30, 1982

Monday, July 26		
Cream of tomato soup	(cup)	.65
	(bowl)	.75
Cheese omelet & 1 veg.		1.75
Beef & bean bake		1.75
Hot Deli: Grilled Reuben		1.80
Tuesday, July 27		
French onion soup w/croutons	(cup)	.60
	(bowl)	.70
Meatcakes & onions w/1 veg.		1.80
Chicken cacciatore & 1 veg.		1.90
or w/spaghetti		2.10
Hot Deli: Sausage & pepper hero		1.90
Wednesday, July 28		
Turkey gumbo soup	(cup)	.60
	(bowl)	.70
Roasted fresh ham & 1 veg.		1.90
Seafood platter		2.15
Hot Deli: Cheddar sloppy Joe hero		1.80
Thursday, July 19		
Chicken vegetable soup	(cup)	.60
	(bowl)	.70
Turkey à la king on rice		1.80
Grilled chopped steak w/mushroom & onions w/1 veg.		1.90
Hot Deli: BBQ top round of beef	(bread)	1.90
	(roll)	2.00
Friday, July 30		
New England clam chowder	(cup)	.65
	(bowl)	.75
Meatballs à la mode on egg noodles		1.80
Balked ziti w/meat sauce & 1 veg.		1.75
Hot Deli: Breaded fish fillet hero		1.90

Diners Note

The Cafeteria will be closed on Saturday July 24. On that day, Snack Bar service will be available from 9 a.m. to 2 p.m. at the Brookhaven Center.



Doug Humphrey

Five members of DOE's Multiprogram General Purpose Facilities Working Group visited BNL recently to discuss proposed construction projects which must be funded separately from the Lab's research programs. These projects include replacing underground steam lines dating from World War II; upgrading the water treatment plant; replacing boiler #3 at the Central Steam Plant; constructing a cogeneration facility, a central chilled water plant, a new firehouse, a new graphic arts building; and doubling the size of building 515 which houses the Applied Math Department. Discussing the proposed expansion at AMD are (from left) Antoinette Joseph, Director, Office of Field Operations Management, DOE; Stuart Rideout, AMD; Alan Claflin, DOE; Vincent O'Leary, BNL Associate Director; John Yates, DOE; Ron Peierls, Chairman, AMD; and Arnold Peskin, AMD.

Insurance Info

Connecticut General Insurance Co., the medical insurer for the Laboratory's employees, is now using a new computer system to process medical claims. This system requires that an employee's social security number be included on all claim forms and all bills. If this number is missing, payment will be delayed, so employees are reminded to include their social security number when submitting any future medical bills or forms for payment. Anyone with questions should call Personnel Services, Ext. 2877.

More Picnic Fun

Another picnic is coming up soon, so don't pack away your lawn chairs and ice coolers. On Saturday, August 14, the Afro-American Culture Club is sponsoring a "Food Of All Nations" picnic for Brookhaven employees, their families and friends.

Come and taste the wonderful foods that will be contributed. There will also be games, contests, dancing, refreshments and a few surprises. Music will be provided by D.J. "Hollywood." The festivities will be from 10 a.m. to 6 p.m. at the softball fields.

The response date to the picnic has been moved back a week, to July 30. Fill out the yellow flier that recently came in the mail and send it to Mary Durham, Building 902B, or call her at Ext. 7982.

Quilting Club

The BERA Quilting Club will meet on Tuesday, July 27 at 7 p.m. in the lounge of the Recreation Building. New members are always welcome. Bring your handwork, your questions and your finished projects to show off. For more information, call Bernie Benz, 928-1068.

Att: Tennis Players

The annual tennis tournament starts on Saturday, July 24. Weather permitting, the finals will be held during the week of August 9.

Tournament play will have priority over other court use on the weekends of July 24 and July 31.

Softball

Scores for week of July 12:

Leagues I and II
Six Pax 9 — Phoubars 2
Ravens 14 — Blue Jays 3
Ice Pops 18 — Roga 15
Moles 23 — Big Sticks 8

Leagues III and IV
AMD 13 - Titans 12
For AMD, Frank Devito went 4 for 4.
Dirty Sox 11 — Magnuts 6
For the Dirty Sox, Kevin Wyman was 4 for 4 with a home run.
Electric Co. 15 — Lights Out 9
Game clinched by Kevin Cosgrove's home run and Patti Bender's defensive play. Jim Boomer and Pete Eterno went 3 for 4.
Medical 19 — Random Errors 14
Home runs by George Greene and Pete Heotis, and good all-around team defense helped Medical hold off the Errors.

League V
TNT vs. No Names
Game postponed.
Nads 7 — E-Z Riders 5
Survivors 17 — Turkeys 5

League VI
Who Cares 14 — The Source 11
Mudville Sluggers 18 — No Feedback 8
Mole-Esters 12 — Who's On First 5
Random Sample 19 — Underalls 2
All of the women played well, but Laura Reany's BIG home run helped the Random Sample to Victory.

Makeup game:
Who Cares 21 — Underalls 9

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Picnic '82

A Celebration Of BNL's 35th Anniversary

The BERA Special Events Committee thanks all who participated in this spectacular event for their help and continued enthusiasm.

— Photos by Alex Reben

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. 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 Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT: Opportunities for present Laboratory employees.

1720. CLERICAL POSITION - Will provide clerical and administrative support in the Physics Department business office. Responsibilities include the processing of purchase requisitions, ILR's, invoices and heavy telephone contact within the Laboratory and with outside vendors. Requires excellent communication and interactive skills as well proficient typing and secretarial abilities. Physics Department.

1721. RADIOACTIVE MATERIALS TECHNICIAN — Requires demonstrated mechanical skills for the maintenance and use of liquid pumps and liquid concentrators. Medical Department.

SCIENTIFIC POSITIONS OPEN: The following staff positions are open. Candidates may apply directly to the department representative named, or through the office of Scientific Personnel, Ext. 3338.

PROTEIN CRYSTALLOGRAPHER — Seek Project Scientist interested in the use of synchrotron radiation to join the Structural Group of the Biology Department. Contact: B.P. Schoenborn, Ext. 3421.

Autos & Auto Supplies

75 FIAT X-1/9 - gold, good cond., good gas mi., extras, asking $2,000. Phil, 286-9338 or 475-4982.

79 YAMAHA - XS1100, many extras, 4,300 mi., mint cond., $2,800. 981-0025.

TIRES - (4) Goodyear polycord, 6.95-14, w/w, 1,000 mi., one new, $80 for all. Ext. 4263.

73 CHEVY IMPALA - 4 dr., p/b, p/s, radio, auto., new tires, brakes, tune-up,

excel. cond., 93,000 mi., $550. Available after Aug. 3. Ext. 3701.

79 HONDA HAWK - motorcycle, 400cc, almost new, asking $1,200. 588-0805 eves.

SNOW TIRES - (3), 7.50x16.5, on Ford 8 lug rims, $100 for all; Fischer plow frame, best offer. Pete, Ext. 7513.

82 FORD ESCORT - 5 dr., a/c, am/fm stereo cassette, p/s, many extras, take over payments. 924-6131.

77 HONDA - motorcycle, Supersport, 400cc, garaged, excel. running cond., must sell for $800. Ext. 2032 or 281-2257 after 5.

80 FIAT STRADA - am/fm stereo, new radials, Rusty Jones undercoating, excel. cond., $4,000. Ext. 2231 or 369-1829.

TIRES - (4) 155SR13, good cond., $60. Jeff, 732-3842 after 7 p.m.

75 PLYMOUTH FURY - 55,000 mi., auto, new starter, battery, timing chain, very good cond., clean, must sell, $1,475. Ext. 3027 or 4157.

FORD TRUCK WHEEL - and tire, 9.50x16.5, suitable for spare, $30. Dot, Ext. 3675 or 286-8909 after 5:30.

CHEVY TRANSMISSION - 4 spd., Bell housing, shifter, clutch and drive shaft, $100 takes all. Artie, Ext. 2674.

76 SUBARU DL 1600 - needs work, $1,200. 821-0599.

TIRES - (4) RV 800x16.5, excel., replaced w/radials, $100. Bob, Ext. 4547 or 473-5360.

69 NOVA - 6 cyl., mags, am/fm cassette, good cond. 475-4270 after 5 p.m.

79 TOYOTA LANDCRUISER - 4 spd., rust proofed, Laredo tires, hard top, stock immac. cond., $5,800. Bob, 744-3289.

80 HONDA - motorcycle, CB1255, low mi., helmet & manual, $550. Ext. 4761 or 924-3556 eves.

78 FORD MANUALS - (3), covers T-bird and most others, light maintenance, elect./vac., car specifications, like new, $8. Ext. 4295.

TIRE & RIM - 10-16.5, Goodrich all ter radial, on 8 lug white spoke rim, good cond., $40. Ron, Ext. 7101 or 289-1003.

79 HONDA - CM400T, 2,000 mi., garaged, must sell, $1,000. 981-0181.

73 YAMAHA - 250RD, runs well, $350. 473-8716.

CHEVY RIMS - (4), white spoke, 8 lug, 10x16.5, asking $175, leave name & number. 732-7799.

75 DATSUN B210 - 2 dr., hatchback, 4 spd., am/fm stereo, $1,100. 981-2739.

81 HONDA MOTORCYCLE - 650, custom, windshield, luggage rack, sissy bar, crash bar, travel trunk, super mint cond., $1,995 firm. 281-8274.

77 HARLEY DAVIDSON - Sportster, 1000cc, 10,000 mi. stock, asking $2,400. 744-1027.

73 CHEVY IMPALA - new paint, ac/pdl, p/s, p/b, excel. cond., $950 negotiable. Charles, 369-1186 after 5.

74 MONTE CARLO - full power, air, clean, am/fm 8 track, two tone, silver with burgundy velour, very good cond., $2,500. Mark, Ext. 5176.

81 TOYOTA COROLLA - a/c, stereo, p/s, auto., excel. cond., $6,800. Ext. 3597, 9-5.

70 DODGE DART - battered inside and out, runs reliably, $150. Ext. 7637 or 286-4639.

75 FIREBIRD - p/s, p/b, a/t, new paint, chrome wheels, am/fm cassette, good running, $2,000 or best offer. A. Romano, 265-0117.

74 FORD TORINO - $800. K. Fuchel, Ext. 4116.

79 MGB CONVERTIBLE - 2 tops and hood cover, 31,000 mi., new tires, brakes, complete tune-up, am/fm 8-track stereo, undercoating, 5 yr. rustproofing, good cond. 878-0516.

72 PONTIAC LEMANS - all new parts, body good, best offer over $600. Doris, Ext. 3488 or 924-7832.

76 VW DASHER - 4 dr., auto, lo mi., $2,400. Ext. 2475 or 751-4539.

66 MERCURY WAGON - runs well, clean, msut sell, $375. Rich, Ext. 3499 or 585-0025.

71 HONDA - 175cc, good cond., runs well, reliable transportation, $250. Larry, Ext. 2021 or 281-7240.

76 BUICK LE SABRE - custom, a/c, p/s, p/b, p/w, e/l, am/fm stereo cassette, p/seats, very good cond., $2,400. M. Eldrup, Ext. 3851 or 3867.

70 MERCURY MONTEGO - running cond., $300. 821-0354 after 6:30 p.m.

73 BUICK REGAL - 2 dr., gray, p/s, p/b, a/c, m/fm, 55,000 mi., good cond., new tires, $1,100. L. Kukacka, 473-1157.

70 KARMAN GHIA CONVERTIBLE - canary yellow, must sell, best offer. 548-3121 9-5 or 924-4284 after 7.

63 FORD F500 - 12' basket truck, call for appointment. Ext. 4835 or 473-3974.

67 PLYMOUTH BARRACUDA - auto, white, many new parts, good cond., $700. Holroyd, Ext. 4329 or 751-6820.

78 HONDA - CX500, new Dunlops, S&W, Shoei., good cond., $1,495. Ext. 2259 or 473-8356.

80 YAMAHA - XS850, full fairing, 2,000 mi., 53 mpg, travel trunk, extras, mint cond., $1,895. John, Ext. 4255 or 929-4450.

Boats & Marine Supplies

25' WICKS - cedar hull, hard top, 70 HP, gray, low hours, sleeps 2. 472-1243 after 6 p.m.

61 JOHNSON - 75 HP, runs well, $200. 363-6940 after 5 p.m.

25' CHRIS CRAFT - 1960, in good cond., engine still under guarantee, stand-up head, stove, sink, table, sleeps 4, $1,500. 281-0360.

25' MAKO - 1979, twin 140 HP Mercurys, many extras, excel. cond., asking $18,000. 924-3756.

19' ODAY MARINER - 1968, 4 HP Evinrude, trailer, $5,500. Olson, 289-8629 after 7 p.m.

Free

METAL GARBAGE PAILS - several, you pick up. 286-0422 after 6.

MALE KITTENS - adorable, available now. Ext. 2980 or 289-0532 after 6.

RIMS - (2) 15". Ext. 2906.

VW BEETLE ROOF - only windows intact. Laine, Ext. 2318 or 727-0811.

GUINEA PIGS - long haired, 2 female, gentle, cute, complete set-up, allergic to hair. Rich, Ext. 5284 or 924-4237.

YOUNG DOGS - for adoption, Lab-Weimeraner, Shepherd, Springer Spaniel, also Springer-mixed puppies. Ext. 2959 or 751-8168.

Yard Sales

BROOKHAVEN HAMLET - 3 family, Fri. & Sat., July 23-24, 27 Chapel Ave., antiques, collectibles, clamming equipment and much more.

MASTIC BEACH - 7/24/82, Jefferson Dr., many games. C. Nagle, Ext. 5329 or 281-7627.

BROOKHAVEN - antiques, crib, shredder & miscellaneous items, 9-12, July 24, 99 Bay Rd.

MILLER PLACE - Saturday, July 24, 9 a.m. to 5 p.m., moving, many items, 2 Lodge Lane.

PATCHOGUE - 11 Oxbow Rd., July 23 & 24, 9-5, something for everyone.

SHIRLEY - 384 Lockwood Dr., July 31, all day.

Miscellaneous

COLOR TV - 21", Sylvania, good cond., $30 or make offer. Ext. 2611 or 751-4098.

FISHING POLE - Garcia Conolon, 6-½ ft., heavy action, used once, $12. Ext. 3992, Tues.-Thurs.

BEDROOM SET - 2 twin beds, chest of drawers, 2 night tables. Ext. 3392 or 475-8330.

LAMP TABLE - solid mahogany, 24x26, $25; round lamp table, formica top, $10. J. Candiano, Ext. 4144.

UPRIGHT FREEZER - old but works very well, 6'x3'. 924-6751 eves.

ELECTRONIC MEDICAL THERMOMETERS - new, $10 ea. Charlie, Ext. 3935 or 325-0968.

HELMET - full face, black, Aries w/shield, not used, new cost $90, sell for $65. Ron, Ext. 7101 or 289-1003.

LENS - wide angle, 28/2.8 Vivitar, M/MD Minolta mount, haze filter, lens caps. Felix, Ext. 7757.

SONY PROF. WALKMAN - TCS-310, super sound, brand new, cost $140 will sell for $100; organ, for church, studio or serious student, full A.G.O., perfect cond., $2,975. Ext. 7934 or 728-0273 eves.

AIR CONDITIONING UNIT - Fedders, 3/4 ton, window, 220V, $150. Bill, Ext. 4633.

SOFA - green French provincial, seat cushions need replacement, best offer; gold vinyl hassock, $15. Lynn, Ext. 2780.

HANDCRAFTED FURNITURE - colonial, pine, d/r set includes large breakfront $1,200; 2 large bookcase units, $150 ea.; wood lathe, $150; Jatel coal stove, $450. 929-4855.

IRRIGATION PIPE - (2) 20' aluminum lenghts, standard farm hookup, (2) 12" risers, no sprinklers. Jack, Ext. 3260.

COLOR TV - 19", old, works well, $100. Ext. 7699.

SLATE FLAGSTONES - used, random sizes, average 14"x18", $1/ea. Eric, Ext. 4460 or 363-6753 after 6 p.m.

TOMS MOPED - GM sport, 2 spd., automatic, new, $500. Ext. 3926.

EXTERIOR DOOR - 32", pre-hung, new, unfinished, never used, upper 3 glass sections, bottom wood, $85. Ext. 2906 or 929-6189.

ATARI GAME SYSTEM - many cartridges $15-$18, everything in orig. boxes, $95; console holder, $20. Richie, Ext. 2175 or 734-7342.

ROSS BIKE - Snapper black, boy's 20", Moto-X complete with pads and new snake belly tires, $85. 928-7993.

CHAIR - Bennington, pine, wingback w/ottoman, hardly used, $150. Ext. 7690.

PHONOGRAPH - children's portable, G.E., 2 spd., like new, $20; LP gas furnace, 49,000 BTU, recess in floor or free-stand, like new, $100. Susan, Ext. 7235 or 399-1736 after 5.

SOFA - green sectional, material on 2 cushions torn, otherwise good, $15; 2 end tables, $15; crib, $15; hi chair, $12; barbell/dumbbell set, $20; portable 1931 Royal typewriter, good cond., $35. 727-1617.

BEDROOM FURNITURE - 2 large wood pieces (dresser & chest), $30 ea.; 1 desk, 1 corner piece, 1 white dresser, $25 ea.; secretarial desk, L-shaped, with 5 drawers, black metal w/walnut finish formica top, asking $60; sofa, convertible, queen size, off-white/tan, 7 yrs. old., asking $290. 281-0804 weekends or eves.

FOUNTAIN - 3 tier, with circulator pump, statue top section 5" high, $50.

363-2070 eves.

BLACK & WHITE TV - Admiral, plus stand, works well, $25. Ext. 3415 or

363-6063 eves.

BICYCLE - boy's single speed, Schwinn, good cond., $10. Ext. 4501.

DISHWASHER - counter-top, non-electric, hooks to faucet, new, $10; fireplace air circulator, $5; bar-b-que, well used but still works, $5. Laine, Ext. 2318 or 727-0811.

CARRIAGE - classic Bilt-rite Coach w/large wheels, navy, excel. cond., $75. Mark, Ext. 5176.

LADY'S WATCH - small dress, Wittnaur, stainless steel casing, in excel. cond., $30. 654-8438.

GUITAR - w/case, $20; 9' bookcase, 2 shelves, $25; BC-220 Scanner, $85; Reese hitch, $85. 265-3612.

COLOR TV - 23", reconditioned Motorola, beautiful wood grain console, $150; Bogen stereo amplifier, excel. cond., like new, 35 watts per channel, $60; upright organ, Magnus Model #535, 42 watts, $60; Siltronix 0-1500 watt meter, 2-50 MHZ, $50. 751-6418.

TYPEWRITER - IBM correcting Selectric, 3 yrs. old, excellent, asking $800. 281-0804 eves or weekends.

CLUB CHAIR - $35. 698-3856.

GIRL'S BICYCLE - 20", good cond., $25. Ext. 2616.

SEWING MACHINE - in cabinet. 924-3546 or 924-6617.

MOVIE CAMERAS - 8mm Bell & Howell, manual wind, and 8mm Kodak, battery wind cartridge, $25 ea. Ext. 4769.

PUSH MOWER - new cond., $10. Linda, Ext. 2733.

BLACK & WHITE TV - 22" Zenith, with stand, $30. Doug, Ext. 2801.

BLACK & WHITE TV - 12" Zenith, used for 8 months, $50. Ext. 3027 or 4157.

DOLL HOUSE - Victorian, 8 rooms, fully furnished. Marge, Ext. 2515 or 2516.

DISHWASHER - G.E. portable, excel. cond., $60. 286-2155.

MATTRESS - twin, quality firm, $25. 475-4394.

LAWN MOWER - three gang reel type, 60" cut, $400. Ralph, 286-0615 after 6.

COLONIAL MAPLE COUCH - $125; black recliner, $35. Ext. 3040 or 399-5042.

CHEST OF DRAWERS - $15; radio table, $15; queen sofa bed, $50; dresser, $15. 928-9448.

DRUMS - (2) 55 gallon, new, $15 ea. Webster, Ext. 2525.

HOT WATER HEATER - 30 gallon, electric, Low-Boy 2 element, 9,000 W, 240 V, new, never installed, $80; white roof shingles, approx. 2-½ sq. ft., "Sol-Seal", new, $25 takes all. Rino, 273-2958.

PARAKEETS - (2) w/cage, exotic colors, owner raised, lovable, acrobatic clowns, sacrifice, $35. 744-3069.

COCKTAIL TABLE - wrought iron, plexiglass top, $150. 979-8788 after 6 p.m.

HEADBOARD - brass-plated, full size w/frame, $40. Toni, Ext. 2907.

For Sale

FLORIDA - Limebay/Tamarac area, condominium, top floor, 2 bdrm., 2 bath, screened terrace, recreation facilities, $68,000. 669-6298.

OLD STONYBROOK - North, 100 yds. to beach, energy efficient, totally restored, 2-3 bdrms., 1-½ baths, basement, brick patio, 2 car garage, fence, $1,100 taxes. $86,900. Ext. 2145.

CENTER MORICHES - (Holiday Beach), fenced corner lot w/waterview, ideal location, $10,000 negotiable. Baldwin, 289-1568.

RIDGE - 2 bdrm. house on 100x100, deck, fireplace, lake rights, $34,000. 929-6034.

MORICHES - 6-room ranch, 2 full baths, on 1 acre, 5 appliances. Steele, 363-6063 eves.

MASTIC BEACH - 4 bdrm. cape, d/r, l/r, w/Franklin, eik, full porch, low taxes, walk to bay & stores, gas hot water & cooking, Farmers Home 8-½% mort., (80x100 adjacent reasonable) $24,000. 281-0360.

BIRCHWOOD - at Blue Ridge, condominium, 15 min. from Lab, 3 bdrms., many extras, facing golf-course, low 60's. 698-7213.

STONY BROOK - colonial, 4 bdrm., 2-½ baths, l/r, d/r, eik, util. rm., basement, f/p, garage, 1/3 acre, quiet area, north of 25A, walk to SUNY, shops, LIRR, small assumable 6% mort., $83,500. 689-8229 after 6 p.m.

MILLER PLACE - spacious tri-level ranch, w/income apt., 2 bdrm., dinette-kitchen, l/r, bath, upstairs - 1 bdrm., w/dinette, bath, l/r w/picture window, 2 car garage and storage shed, 3/4 acre, patios, etc. 744-2536 after 6 p.m.

WADING RIVER - custom built, 4 bdrm. colonial, 2 baths, d/r, den, f/p, 2 car garage, full basement, private beach. Ext. 7727 or 929-4631.

CORAM - 3 bdrm., split level ranch, den, family rm., w/w, 2 car garage, 9 miles to Lab, assume 7%, reasonable, also will rent. Ext. 2277 or 928-9448.

RIVERHEAD - 12'x60' mobile home, excel. cond., 2 bdrms., washer/dryer, shed, fenced-in-yard, large awning and patio, 2 car parking, corner lot, $12,500. Marsha, Ext. 2871 or 727-8750 after 6 p.m.

For Rent

STONY BROOK - 3 bdrm. colonial, Three Village School District, nice neighborhood, available Aug. 1, $750/month + util. Ext. 2611 or 751-4098.

FLORIDA - Springhill, near Tampa/St. Pete, 2 bdrm., furnished house, golf, tennis, lakes, Gulf 5 mi., Disney World 1-½ hours, $100/wk. Ext. 4530 or 261-2719.

SHOREHAM - 2-5 bdrm., beautiful secluded grounds, walk to beach, available now for 1 year, rent varies depending on space needed. 744-6804.

FURNISHED HOUSE - 3 bdrm., private fenced backyard, 5 miles from Lab, $400/month + utilities. Ext. 3742 or 821-9423.

E. PATCHOGUE - 3 bdrm. house, study, sunporch, unfurnished, $625/month, negotiable, available October for 2 years. J. Olson, 289-8629 after 7 p.m.

Car Pools

BABYLON - West Islip, additional driver needed for 4-person car pool. Ext. 2500.

STONY BROOK/STRATHMORE - existing car pool needs rider/driver. Morris, Ext. 4192.

SETAUKET - Three Village Shopping Plaza area, join existing car pool or form new one. Suresh, Ext. 4459.

Lost & Found

LOST - 2 dogs, somewhere in Riverhead area, on 7/15, both black/white mixes, about 1 yr. old, (1) long haired male, (1) short haired female with red collar. Any information please call Ext. 4303 or 878-1688.

LOST - Reward: Info leading to recovery of bike, lost 7/20/82 at cafeteria 6-7 p.m. KHS Competition, 12-speed, dark blue, 25" frame, black rack, gen. & light, toe clips, citadel lock. Call Lab police. Ext., 2238.

Wanted

HUB CAPS - (2) for 1968 Chevy pick-up, C-20 or C-30 series only. Ray, Ext. 2012 or 325-0928.

UTILITY TRAILER - floor bed, 4'x8', have about $100 to spend. 924-6751 eves.

APARTMENT - 1 or 2 bdrm., Islip/Great River/Oakdale/Sayville. A. Farrell, Ext. 4393 or 422-3208 after 6 p.m.

KITCHEN CUPBOARDS - storage units, any material, good cond. Ext. 3565 or

369-2151.

70 DUSTER - front bumper, without dents, will pay cash plus replacement. Tim, 727-7741.

NEW YORK APARTMENT - 2 bdrm., upper W. Side, safe neighborhood, under $700/month, $100 reward. Rob, Ext. 2697 or 2516.

ROOMMATE - male to share 3 bdrm. house, Patchogue, convenient to buses & town, must see. Mickey, 732-3350.

TURNTABLE - 78 RPM plus, mag. cartridge pref., top condition only. Ext. 5232 or 271-4257 after 6 p.m.

TRUNKS - wooden wardrobe, chests, for storage, urgently needed. Ext. 3565 or 369-2151 after 6 p.m.

POTTER'S WHEEL - any condition, reasonable. Rick, Ext. 3803.

MOTOR - 6 cyl. Chrysler, 225 C.I., must be in good running cond., able to demonstrate. 286-1522 eves.

LATE MODEL VAN - excel. cond., 6 cyl., and non-custom preferred. Bob, 744-3289.

TIRES - C-78-13, good to fair cond. Susan, Ext. 4267.

SPIRAL STAIRCASE - reasonable. Ext. 2802 or 728-2104.

CARDED LAMBS WOOL - approximately 1 lb. Amy, Ext. 2369 or 3002.

77 to 79 FORD - Supercab pick-up truck, $50 reward. Artie, Ext. 2647 or 325-0743.

DESK - office type, metal with swivel chair, would like 30x60 double pedestal, reasonable price. Andy, Ext. 3264.

HOUSE - to rent on North Shore for at least 2 weeks in Aug., 2 bdrm., must be on or near beach. Toni, Ext. 2907.

Services

HOUSE SITTING - free, caring experienced responsible, any period after July 26. J. Allentuck, Ext. 2412.

LAWN CUTTING - yard maint., clean-ups, No. Shore, Port Jeff. to Rocky Point. John, 331-3358 or Bob, Ext. 2517.

FANS INSTALLED - attic and basement. Joe, 399-0864.

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

HOUSE PAINTING - interior/exterior, professional, quality materials, insured. Bob, 289-7657.

HOME IMPROVEMENTS - vinyl and aluminum siding, trim, roofing, gutters and leaders, custom carpentry, free estimates. Charlie, 744-3160.

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

PLUMBING AND HEATING - Lab discount. John, 654-8189.

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