BROOKHAVEN BULLETIN

Vol. 35 - No. 28 July 24, 1981

BROOKHAVEN NATIONAL LABORATORY

DEE's Cover Story

Keith Lewin and Nick Gmur examine data as they stand under one of DEE's movable greenhouses. It seems ironic that the structures are pushed along tracks to cover the soybean crops each time it rains, but in that way the plants receive only acid rain used in the experiment.

—photo by Humphrey

The sky is getting darker by the minute. As soon as the first drops hit the windshield, Keith Lewin and Nick Gmur, Biology Research Associates in DEE, exchange glances and immediately head the truck back toward their research field. They must hurry in order to cover the soybean plants before the crop becomes saturated with ambient rain.

Once there, Gmur leaps out of the truck and grabs the hardware to attach the 30 foot wide, 96 foot long greenhouse to the truck. While he dashes to the opposite end, Lewin starts the truck and pushes the two ton structure along a 220-foot track until it is covering the soybeans. After the process is repeated for the second greenhouse, Lewin and a soaking-wet Gmur return to DEE confident that their acid rain experiment has not been ruined.

Each time rain threatens, someone on the project crew must drop what he or she is doing in order to cover the crops. The object is to simulate an exclusively acid rain environment so that its effects on plant life can be scientifically observed. The crops have not received any natural rainfall since the project began last spring.

The man-made acid rain is concocted at the site of the experiment in a small pumphouse. Tap water is brought in, deionized, and the chemistry of the water is adjusted to simulate that of natural rain water. The acidity(ph) of this simulated rain is adjusted to yield acidities desired for the experiment. It is then pumped into a series of hoses and through a sprinkler system used in the greenhouses.

The crops receive ten thousand gallons of the treated water per month, or one inch per week, which is the average amount of summer rainfall for this area. Three other plots in the field are left uncovered. Similar experiments in other parts of the country are conducted in closed greenhouses, but Lewin, who has also worked with closed greenhouses, says that system changes the effects of the elements of the plants. "We're trying to create the most realistic acid rain conditions possible," he said.

It has been only six weeks since the project began, but Lewin and Gmur have been able to make several observations from this and other field experiments over the past four years. Some of the plants, chosen for their economic importance or because they are grown where they could be affected by acid rain, are not harmed at all. Others however, show a reduction in photosynthetic leaf area. "As a result," Gmur said, "the plants can't support seed development and therefore produce a lower yield."

Now Lewin, Gmur, and four Manhattan College guest researchers: Elizabeth Cunningham, Mitchell Patti, Christine Hartnett, and Robert Gill, will continue to collect data and work out the bugs in the system. The greenhouses are an original design by Lewin and Gmur in cooperation with Oehmsen Plastic Greenhouse Mfg., Inc. of Bohemia L.I. As far as they know, theirs are the largest movable research greenhouses in the country.

— Myra Aronson

Electric Cars: A Current Report

Over the past year, 13 electric vehicles have replaced gasoline-powered vehicles in the Lab's fleet. They were purchased out of a $202,500 grant from DOE for a three-year demonstration project to determine the feasibility of using electric cars on American roads.

The vehicles include three Change of Pace wagons, with automatic transmissions, from Electric Vehicle Associates (EVA), eight small vans (600s) from Jet Industries and two one-half ton vans (1000s) from the same company — all 4-speed shifts.

To date, they have traveled 23,507 miles and have used 25,432 kilowatt hours of electricity. This works out to 0.92 miles per kW. When the vehicles first went into use, the cost of electricity was 4.5¢ per kW; now it is over 7¢. At today's prices, a gas-powered vehicle that gets 10 miles to a gallon costs about twice as much for fuel as an electric vehicle.

But there are many other factors that must be taken into consideration. The range of electric vehicles is very small. On a full charge, the BNL group can go from 30 to 50 miles. They cannot be used round the clock, but must be recharged. Recharging a fully depleted battery bank can take up to 8 hours, and BNL's vehicles cannot be plugged into just any electric socket. Charging stations have been installed at each location where the vehicles are normally parked.

And, of course, maintenance and replacement parts are required to keep these silent vehicles purring along. To date, some have done better than others. At present, the EVA's are back at the company for modification of the battery charging system, which has been a recurring problem. There have been some minor difficulties with the clutch, reverse gear and ignition switch on the vans, but Staff Services considers these only of a "debugging" nature. Each vehicle carries 20 to 21 lead acid batteries which are expected to last up to three years. This was not the case with the EVA's because of

(Continued on page 2)

ISABELLE Workshop At Midpoint

The ISABELLE Summer Workshop, now in session, focuses on the physics opportunities presented by the accelerator at an energy of 350 × 350 GeV and a luminosity of $2 \times 10^{31} cm^{-2} s^{-1}$ up to $10^{33} cm^{-2} s^{-1}$. Discussing this during registration last Monday were (from left) Nobel laureate Samuel C.C. Ting of M.I.T.; Nicholas Samios, Deputy Director; Ling-Lie Chau Wang, member of the Organizing Committee; and Frank Wilczek, guest speaker from the University of California at Santa Barbara. At the opening session, Samios encouraged the more than 200 physicists assembled in Berkner Hall to approach their discussions with open minds, cautioning them that, "We should not have the hubris to think we know all there is to know about physics at ISABELLE energies." Later, Ernest Courant, distinguished BNL accelerator physicist, described the accelerator as experimentalists might see it. A theorist's view was given by Wilczek, who outlined the questions it is hoped that ISABELLE will answer. Presenting both orthodox and newer theories, Wilczek said, "We're looking forward to the excitement of high energies and we expect stringent testing of all the theories." Workshop summaries will be presented next Thursday afternoon, July 30. Samios and Ting, co-chairmen of the workshop, will offer concluding remarks at the closing session, next Friday morning.

—photo by Humphrey

Phone Facts

The new switch that guides the GTE telephone system is very intelligent — and very persistent.

The switch is intelligent because it is capable of self-diagnosis and can pinpoint the causes of its malfunctions. For example, if you leave your receiver off hook (ROH) for more than two minutes, the switch signals, "Line No. XXXX is ROH."

The switch is persistent because it will keep repeating that message until the problem is corrected. If several lines are ROH at the same time, the problem is compounded, keeping the switch from performing other functions.

When this gets really bad, switchroom personnel have only one alternative — to disconnect the line that is ROH.

The best solution is to place the receiver on the hook when the phone is not in use.

Sunday Tours

Lab Site
Exhibit Center
10 a.m. - 3 p.m.
Through August 30

Discussions With Stony Brook

Mort Rosen

On July 8, John Marburger, President of SUNY-Stony Brook (seated. center), and Marvin Kuschner, AUI Trustee and Dean of the School of Medicine, Health Sciences Center at Stony Brook (standing, center), visited BNL to become acquainted with research programs carried out at the Medical Department. They discussed increased collaboration between the Medical Department and the Health Sciences Center with Victor Bond, BNL Associate Director for Life Sciences and Safety (left), and Donald Borg, Chairman of BNL's Medical Department (right).

Reports Available

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, Virginia 22161. Staff members should call Ext. 3484.

BNL 51006 **$18.00**
The Brookhaven Regional Energy Facility Siting Model (REFS): Model Development and Application. P. Meier, B. Hobbs, G. Ketcham, M. McCoy, R. Stern

BNL 51214 **$7.00**
The Fate of Human Viruses in Groundwater Recharge Systems. J.M. Vaughn and E.F. Landry

BNL 51215 **$6.00**
Survey Review of Models for Use in Market Penetration Analysis (Utility Sector Focus). P.J. Groncki, A.S. Kydes, J. Lamontagne, W. Marcuse, G. Vinjamuri

BNL 51260 **$6.00**
Advanced Amorphous Materials for Photovoltaic Conversion. R.W. Griffith, A.E. Delahoy, M.D. Hirsch, F.J. Kampas, P.E. Vanier

BNL 51272 **$7.00**
Fuel Cell Applied Research Electrocatalysis and Materials. Quarterly Report October 1 -December 31, 1979. S. Srinivasan, H.S. Isaacs. J. McBreen, W.E. O'Grady, H. Olender, L.J. Olmer, E.J.L. Schouler, K.V. Kordesch

NUREG/CR-1798
BNL-NUREG-51296
Acceptance and Verification for Early Warning Fire Detection Systems. J.L. Boccio, I. Asp, R.E. Hall

NUREG/CR-1799
BNL-NUREG-51297
Advanced Reactor Safety Research Division. Quarterly Progress Report July 1 - September 30, 1980. A.J. Romano

NUREG/CR-1800
BNL-NUREG-51298
Water Reactor Safety Research Division. Quarterly Progress Report July 1 - September 30, 1980. A.J. Romano

BNL 51302 **$5.00**
Longitudinal Symmetric Coupled Bunch Modes. J.M. Wang

BNL 51310 **$5.00**
The New AGS Fast Extraction System. W-T. Weng

Tune In!

In the wake of not having a Conference Coordinator in the Public Relations Office, I understand that the various cohesive functions having to do with conference arrangements are to be handled by the individual's department coordinator.

One suggestion: with regard to conference lunchbreaks — informing the Saga management of the break for lunch gives them a chance to advise regulars by posting a sign the day before. Also — noon is not the best time to schedule a conference break.

Is there a way of advising department coordinators?

Answer:

Your suggestions are good and will be incorporated in a forthcoming Guide and Checklist type document for "department coordinators," to use your phrase.

Production is contemplated within a few weeks. Now would be an excellent time to consider any additional ideas on the subject.

An out-of-business sign in the window of a shuttered bookshop: "Words failed us."

•

Old golfers never die they just putter around.

Electric Cars (Cont'd)

the defective battery charging system. All the vehicles are designed to use gas-powered heaters, as electric heaters would be too much of a drain on the system.

Electric vehicles are not economy buys. When ordered in 1979, the three EVA's cost $13,401 apiece, the 600s, $9,055 per, and the 100s, $14,352 each. They have been assigned to various departments and divisions and have been used mostly for deliveries.

Nick Pisco, Staff Services, reports to DOE each month on the vehicles' performance, from records kept by the users. Generally, he says, most people like to drive them, but find they must use different driving techniques and, because the cars make no noise, drivers develop a new set of responses. For instance, the shifting procedure is different. Says Pisco, "you engage the clutch to slip into gear, then take your foot completely off the clutch and slowly depress the accelerator until you hear a click. If you did that in a gas vehicle, you'd stall." So, although there are two years to run before the demonstration project is complete and conclusions drawn, many an embarrassed driver of gas models would consider not being able to stall, a definite advantage.

Early Music Concert On Tuesday

A program of Renaissance music, performed on authentic instruments, will be presented by the Long Island Baroque Ensemble at Berkner Hall, on Tuesday, July 28, beginning at 8:30 p.m. Players in the ensemble are David Carp, recorder; Renata Maimone, recorder; Jerry Willard, lute and guitar; Lesley Retzer, viola da gamba; and Susan Iadone, treble viol. Tickets are $3, available at the door, and the concert is open to the public.

Doug Humphrey

As Janet Tempel pins a medal on a mannequin representing a Camp Upton soldier, Lou Harson checks to be sure it's straight. The mannequin is part of the new Exhibit Center display that opens Sunday and chronicles the site's role as a military training camp in both World Wars.

Historical Exhibits On View

Two exhibits — one permanent, one temporary — will open at the Lab on Sunday, June 26. Both highlight the site's Camp Upton days.

The Exhibit Center, located in Bldg. 701 (formerly the Graphite Reactor), will house the permanent display. This is the last stop on the Lab's summer tours, which will continue, on Sundays, through August 30. Guided tours leave every half hour from 10 a.m. to 3 p.m. and begin with a viewing of the slide show, Quest. After a bus tour around the Lab site, guests arrive at the Exhibit Center to view displays and browse through the Science Store for souvenirs. The new Camp Upton display was designed by tour program coordinator Janet Tempel and Lou Harson, BNL Principal Architect and Camp Upton Historian.

Harson is also responsible for the temporary exhibit in Room B, Berkner Hall. Designed for a meeting of the Association of Suffolk County Historical Societies which the Lab will host on July 25, the exhibit will remain on display through July 31 from 11:30 a.m. to 1:30 p.m.

On The Spot

Myra Aronson, Reporter
Doug Humphrey, Photographer

Question: Should women be drafted?

Sandra Green,
Safety and Environmental Protection

"I don't feel that they should be. I have a child and my responsibility is there with her. I have a right to do what I want to do."

Marc Greenberg,
Summer Student, Chemistry

"They have the right to fight if they want to, but they shouldn't be drafted — not for combat. I don't want to be chauvinistic, but women are not as physically capable."

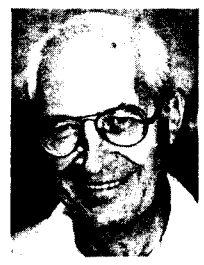
Aristodimos Philippacopoulos,
Nuclear Energy

"I don't think so. I was brought up in Greece where women couldn't be in the army and my opinion hasn't changed since then."

Tatyana Ginzburg,
Nuclear Energy

"If living conditions could be provided to make women comfortable, or if we really needed more people to fight, then it would be okay. But who wants to be drafted in a free country?"

Warren Winsche,
Director's Office

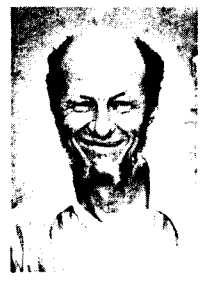


"Yes. They might as well have all the privileges everyone else has. I think it's a privilege to serve your country, so they should be drafted."

Ana Maria Kreiner,
Energy & Environment

"I think so. If we are asking for equal rights, then we should have the same obligations. If men have to go, then why not women?"

Robert Louttit,
Accelerator



"I don't see anything wrong with it. I'd be unhappy if my daughter went off to fight in the trenches, but I'd also be unhappy if my son did."

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Thanks To BNL Tour Guides

Doug Humphrey

On June 24, a luncheon was held to thank the BNL Tour Guides for hosting visitors to the Lab. Out of 40 tour guides in the group, these gathered for a picture after lunch: (kneeling, from left) Joseph Yelk, Vincent Lettieri, Richard Seebeck, George Munoz, Vince Lo Destro, Ernest Jochen, Edward Robson, David Comstock, Ron Clipperton, Rick Jackimowicz, Tom Dickinson; (standing, from left) Peter Takacs, Jean Stafford, Janet Sillas, Carmen Zopf, Fanny Wyche, Irene Ozols, Elaine Taylor, Carol McFadden, Marie Brenner, Janet Tempel, Jackie Mirzadeh, Marion Newton, Elaine Rowland, Madeline Kinney, Lydia Amodeo, Evelyn Ritter, Gail Wyant, Elizabeth Pergan, Janice Lamb, Beth Salata, and George Lilja.

Social Note

Little did we know that even BNL would have some connection with The Royal Wedding next week. It turns out that Sarah Jane Gasslee, one of Lady Diana's five bridesmaids, is the niece of Michael and Belinda Bender. Michael Bender is a senior scientist in the Medical Department.

CREF Values

April	$41.82	May	$43.70
June	44.81	July	47.84
August	48.04	September	48.75
October	49.13	November	53.19
December	51.77	January	50.20
February	51.21	March	52.85
April	52.39	May	52.56

June $51.94

Motorcycle Club

If you want to join a club ride after work on Monday, July 27, meet in the cafeteria parking lot at 5:10 p.m. Bring a tank of gas, a light jacket, a few dollars for food, and your favorite someone to split your banana seat. The east end is nice this time of year, and on a week day, we won't have to share the road with tourists.

Astronomy Club

On Wednesday, August 5, the newly formed Astronomy Club will meet at the Brookhaven Center at 7:30 p.m. in the North Room.

There will be a lecture on small telescopes and, at sunset, some members will set up telescopes for general observation.

Anyone interested is invited to attend.

Cafeteria Menu

Week Ending July 31, 1981

Monday, July 27

French onion soup	(cup)	.55
	(bowl)	.65
Beef chow mein & rice		1.55
Pork & bean bake		1.55
Hot Deli: Sandwich steak w/peppers & onions	(on bread)	1.70
	(on roll)	1.80

Tuesday, July 28

Cream of mushroom soup	(cup)	.55
	(bowl)	.65
Roasted fresh ham w/barbeque sauce		1.65
Spaghetti & meatballs w/garlic bread		1.55
Hot Deli: French toasted grilled ham & cheese		1.60

Wednesday, July 29

Turkey rice soup	(cup)	.55
	(bowl)	.65
Beef stew over noodles		1.65
Southern fried chicken w/cranberry sauce & 1 veg.		1.55
Hot Deli: Baked Virginia ham	(on bread)	1.65
	(on roll)	1.75

Thursday, July 30

Minestrone soup	(cup)	.55
	(bowl)	.65
Corned beef & cabbage		1.60
Baked lasagna & 1 veg.		1.55
Hot Deli: Roast beef	(on bread)	1.65
	(on roll)	1.75

Friday, July 31

Manhattan clam chowder	(cup)	.60
	(bowl)	.70
Stuffed flounder & 1 veg.		1.55
Baked ham w raisin sauce & 1 veg.		1.55
Hot Deli: Meatloaf hero w/tomato sauce		1.70

Soul Food Picnic

The Afro-American Culture Club invites all BNL employees, their families and guests to the Soul Food Family Picnic on Saturday, August 15, from 10 a.m. - 6 p.m., at the BNL softball fields. The style is pot-luck. So bring your favorite dish, enough for your entire party plus one extra person.

There will be refreshments, games, contests, music by guest disc jockey "Hollywood," dancing, and fun for all.

For information call Renee Flack, Ext. 3316, or Chris Moore, Ext. 7125.

Softball

Scores for week of 7/13

League I

Blue Jays 18 - Phoubars 11

For the Phoubars, Dave Jensen was 4 for 4, including a home run. Gary Goldstein was 3 for 3. For the Blue Jays, Juan Alvarez and Bob Janson were 4 for 5. Tom Prach and Wally Shaffer were 3 for 4 with Wally hitting a home run.

Six Pax 17 - Source I 8

Source I had home runs from Joe Sheehan, O. Singh and John Reany. Charlie Carlson had a home run for the Six Pax.

League II

Roga 11 - Moles 9
Big Sticks 15 - AMD Bombers 13
DEEgenerates 19 - Cardinals 15

League III

Nuke Powers 18 - Binary Bombers 12
Dirty Sox 23 - Lights Out 11
The Forties 18 - Magnuts 11
Electric Company 20 - Medical 7
Ice Pops - bye

League IV

Nads 13 - Balls & Strikes 10
TNT 15 - Turkeys 10
Thrids vs. Survivors
Game postponed
E-Z Riders 11 - Random Sample 4
Makeup game:
E-Z Riders 17 - Random Sample 0

League V

Mudville Sluggers 21 - Who's On First 14
Mole-Esters 18 - No Feedback 16

Two 3-run home runs by Charles Wilkins and Joe Henderson.

Source III 10 - Who Cares 9
No Names vs. Solar Power
Game postponed
Makeup game:
Underalls 20 - Mole-Esters 14

Arrivals & Departures

Arrivals

None

Departures

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

Frank Amendola ..... Medical
Diane Geier ..... Nuclear Energy
Deborah A. McKew ..... Biology

SCCC Course Schedule — Fall 1981

Registration July 30 — August 18, Room 112, Bldg. 460

	Course	Cr.	Day	Hours (p.m.)	Fee	Start Date
AC12	Principles of Accounting II	4	T/Th	5:15-7:05	120.00	9/8
BL71	Business Law I	3	T	5:15-8:15	90.00	9/8
DP11	Introduction to Computing	3	M/W	5:15-7:05	90.00	9/14
EK21	Macroeconomics	3	Th	5:15-8:15	90.00	9/3
ST11	Oral Communications	3	W	5:15-8:15	90.00	9/2
EG11	Fresh. English Composition	3	M	5:15-8:15	90.00	9/14
EG83	Shakespeare	3	M	5:15-8:15	90.00	9/14
MA23	Statistics I	3	M	5:15-8:15	90.00	9/14
PC60	Development Psychology	3	W	5:15-8:15	90.00	9/2
TE14	Digital Electronics I	3	T	5:15-8:15	90.00	9/8
TE16	Electronic Devices	3	M/W	5:15-7:05	90.00	9/14

For information, call Renee Flack, Ext. 3316

This peaceful scene may look like a photograph of someone's excursion to a wooded campground in upper New York, but it was actually taken at a shady spot right here on site — the BNL campground on Fifth St.

BNL Campground – It's The Real Thing

The days are filled with tennis, swimming and volleyball, cook-outs, dancing and songs. Then in the evenings, it's so peaceful with the wind blowing through the pine trees and the fresh air — it's just too good to believe.

That account may sound like a Catskills resort, but it's really Chuck Watson's description of the BNL campground. West of the BERA field area on Fifth Street are approximately two acres of land set aside for campers. The area offers all the elements of the real thing and more.

Equipment for various sports and activities are supplied by the BNL Family Camping Club who also schedule special events such as pancake breakfasts, spaghetti suppers and nightly gatherings around a campfire. With a hospital and fire station nearby, the site offers a security advantage too.

But Watson, who is in charge of the club, says not enough people take advantage of it. This year only 14 families are members, and he attributes this to a hang-up people have. "In their minds, they feel like they're coming back to work again." This year, the group is trying to change that image.

When occupied, the site is dotted with motor homes and trailers, but is currently devoid of tents and children. "We want to attract some new blood to the group," Watson said. "After all, what's a camp without tents and kids?"

Membership in the BNL Family Camping Club is open to all BNL employees and their families. For information, contact Chuck Watson, Ext. 3254 or George Scott Ext. 3280.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, as indicated below. Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

LABORATORY RECRUITMENT: Opportunities for present Laboratory Employees.

1596. SECRETARY POSITION - (2 openings) -Requires ASS or equivalent experience to perform general secretarial duties, including typing of technical reports, travel arrangements, preparation of travel vouchers, purchase requisitions, and other BNL forms. Must possess good communication skills and be able to work with moderate supervision. Familiarity with word processing equipment or willingness to learn desirable. Department of Nuclear Energy.

1597. HEAVY EQUIPMENT MECHANIC OPERATOR - Group leader. Plant Engineering Division.

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

1598. TECHNICAL POSITION (Electronic) - Requires an AAS in electrical technology or equivalent experience. Maintain and operate radiation monitoring and other associated equipment. Safety Environmental Protection Division.

Autos & Auto Supplies

72 MAVERICK - blue, good cond, 6 cyl, good mileage, new brakes & muffler. $900. 331-3213.

78 HONDA HAWK II - 400cc, excel cond, low mileage, many extras, must see, forced to sell. Sacrifice. $1,450. Ext. 2926 or 281-0268.

55 BUICK "SUPER" - just inspected, new exhaust & parts, restorable, good body, runs well. $500. Firm. Rose, 744-5069.

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

68 VW POP-UP CAMPER - 30,000 mi. on new engine, sleeps 4, ice box, sink, table. Well maintained. $1,500. Ext. 4324/3126.

74 PONTIAC CATALINA - Tudor, loaded, new tires, etc. Looks good, needs engine. $300. 281-8031.

POP UP - and aluminum boat, $650. Cox p/u good cond, extra work inside f/better camping w/extras, alum. boat, 12 ft., excel cond. Ext. 2964.

72 HARLEY DAVIDSON - FLH police special. $4,000. John, Ext. 4973 or 798-3766.

77 YAMAHA - 360cc elect. start, blue, 7500 mi, like new cond, 2 helmets. Reasonable. 929-8204 after 5 p.m.

50 FORD FLATHEAD - six stick, excel cond, extras. $2,150 or best offer. Terry, Ext. 5105.

71? MOTORCYCLE — 125cc Harley street & trail, needs parts & work. $25. Ron, Ext. 7101 or 289-1003.

78 MOTORCYCLE - GL1000 Gold Wing Honda, 4000 mi, like new. $2,600. 473-8783.

75 FORD F-250 CAMPER - Special Pick-up Truck w/10½' Hornet Camper Slide-on, self-contained, many extras. Will sell camper separately. 929-4840.

CAP - for Pick up truck, insulated 8 ft. bed. $150. Wayne, Ext. 3254.

76 BATAVUS MOPEDS - (2) one running & one not running. $250. for both. Rose, 744-5069.

FIRE SALE - 14" Ford rims, H-78x14 snows, 14" Ford hubcaps, also 14" Chrysler product rims. Morris, Ext. 4192.

BODY PARTS - 1970 Toyota Hilux, most parts in new or excel cond; Truck cap 6 ft. white fiberglass excel cond. Reasonable. Ralph, Ext. 2368 or 928-6654.

SNOW TIRE - A78x13, never used. $5. Mike, Ext. 4360 or 698-5861.

75 RABBIT - 4 spd trans, new brakes, radio, good cond. $1,700. Ext. 2943 or 286-0263 eves.

76 HONDA - CB360, windshield, crash bar, luggage rack, many extras. $895. 281-8274.

79 HONDA TWINSTAR - mint cond, $700. worth of extras. Must see. $1,250. Call 289-2101 during day.

289 ENGINE - good cond, new flywheel, 4 spd trans, excel cond. $150. Takes all. Ray, 589-3485.

78 CHEVY - Nova, excel cond, 26,000 mi. $4,700. Ext. 2115 or (212)539-7548.

70 CHEVY - convert, p/s, p/b, a/c, excel mech., runs well. $1,500. 472-1225 after 6 p.m.

80 YAMAHA #1400 - 400 Special Mag Wheels, electric kick start, black chrome, 63 MPH, 6 spd + helmets. 281-3342.

69 OPEL GT - mags, radials, side pipes, 8 trk stereo, good cond. in & out, good MPG. Ext. 2324.

76 PONTIAC - 4 dr., 6 cyl, s/t, radio, excel cond, 75,000 mi. $1,700. Ext. 3369 or 282-3221 eves.

78 MERCURY - Zephyr, purchased new 1979, excel cond. $3,500. Toni, 928-6562 from 5-7 p.m.

65 JEEP - (cap) (plow) Needs: transmission, many extras, must see. $1,200. Bud, 281-2289 after 5 p.m.

70 BMW - 2000A, a/t. 4 dr, excel cond, restored, 75,000 mi, 25 MPG. $3,000. Firm. Don, Ext. 7772 or 289-7813.

79 TRIUMPH - Bonneville 750cc, 5 spd, all original, low miles. $2,000. Mark, Ext. 3499 or 698-5748.

74 MUSTANG - 4 cyl, excel cond, no rust, 58,000 mi, stereo, new radials, battery, brakes. Mike, Ext. 7540.

18' INVADER CAMPER - Must see. $2,000. 727-4109.

78 VW RABBIT - 2 dr. custom. 37K mi, fuel inj, reg. gas, 4 spd, std. trans, a/c, am/fm cassette stereo, rustproof & polyglycoat & more. George, Ext. 3061 or 751-0894.

AUTO A/C - add on, small block G.M. $150. Bob, Ext. 4547 or 473-3987.

69 BUICK - LeSabre, 69K mi, 4 dr, new tires, brakes, muffler, body rust. $350. 427-6580 eves.

1981 POP UP - light weight, sleeps 6, sink, stove, heater, cooler, excel cond. Reasonable. John, 727-7741.

78 PLYMOUTH HORIZON - dark blue, 4 dr, 4 speed, am radio, roof rack, excel gas mileage, very good cond. $3,600. 924-5331.

Boats & Marine Supplies

SAILBOAT - Laser w/hand trailer, harken block, v.g. cond. $850. 325-0928 after 6 p.m.

16' FIBERGLASS BOAT - carpet, vinyl padded dash - needs: steering, motor, paint. $600. 654-1814 flexible.

14' RUNABOUT - 40 HP Johnson w/trailer, excel cond. $950. 929-3130.

FISHERMEN'S DELIGHT - 12' fiberglass boat, 7½ HP motor, and trailer, excel cond. $950. takes all. Ann, 567-4222 or 924-4097.

PROP - (13x19) prop nut & retainer, engine flush attachment for Mercury 115. Ext. 2482.

40 HP EVINRUDE - good cond. Just overhauled this summer. Tank & hose. $350. Dave Jensen, 981-0210.

Yard Sales

YARD SALE - July 24 & 25th, 10 to 5 p.m., 20 Teller Ave. Coram. Many household items. 732-9517.

MOVING SALE - Contents of house for sale. 57 Meston Rd. August 1st - 3rd. 281-6583.

Miscellaneous

SNOWMOBILE - Skidoo Model 320, needs some engine work, good cond. $120. 286-1522.

PRESSURE COOKER - 4 quart, used only once, Mirro brand, $20. Ext. 3431 or 744-9677.

GARAGE DOORS - 2 ea. 8'x7', good cond. Bob, Ext. 4490.

REFRIG - GE 12 cu. ft. 2 door, good cond. $75. Pete, 475-0831.

STEREO - am/fm 8 trk w/BSR turntable; Polaroid camera instamatic and case, $25. John, Ext. 4973 or 798-3766.

SMALL REFRIG - old but works. Best offer. Ed, Ext. 2362.

ARMCHAIR - brown upholstered, Medit, excel cond. $100. Bill, Ext. 3369 or 929-6442 after 6 p.m.

ICE CREAM MAKER - RCW 5 qt., like new. $20; child's car seat, excel cond, $15; 3 infant seats, $5. ea; wooden crib w/mattress, good cond, $20. Ext. 4084 or 878-1060.

BICYCLE - 10 spd men's 23" Sun Tour GT, rear derailler, center-pull brakes. $100. Nick, Ext. 2490.

2 SPEED - 30" GE exhaust fan and louver. $50. Ext. 4846.

HEATER - portable, catalitic, Coleman fuel type. $15. Ext. 4748.

POLAROID - SX70 camera, $50; golf balls, 3/$1. Jim, Ext. 3851.

LAWN ROLLER - $10. Walt, Ext. 7154.

SCROLL SAW - bench type, 18" deep throat, less motor. Bill, Ext. 4774.

VIDEOCASSETTE RECORDER - G.E. (Panasonic) 2-4 hr., remote pause, separate dust cover, top cond. $375. Ext. 2033.

FREEZER - G.E. upright 11½ cu. ft., $100; sliding glass doors, aluminum frame 71"x81", $35. 286-0925.

DRESSING TABLE - w/bench, long center mirror, 2 wing mirrors, 6 drawers. Best offer. 286-8984.

PORTABLE - washer/dryer G.E., excel cond. $250. Peter, Ext. 4272 or 698-3822 eves.

TV - Zenith 25" color, Medit. style cabinet, excel cond. $250. 732-4821.

FREEZER - Kenmore, mint cond, used 1 season only, 23 cu. ft. $400. Ext. 3786.

POOL FILTERS - (2) Hayward (DE), $25. ea; double stainless sink, $10; counter top, $20; Anderson window, approx. 2'x3', $5. Ron, Ext. 7101 or 289-1003.

BIKE - girl's 20" Ross - Europa 3, $25. Tina, 821-0104.

COLEMAN STOVE - lantern; sleeping bags; air mattresses; more. Ext. 4324/3126.

HUMMEL PLATES - in orig. boxes, 1972 - 1979, $75. ea. Ann or Gail, 593-3746 eves.

WASHING MACHINE - GE, good operation, needs transmission seal. $35. Morris, Ext. 2040.

CEMETERY PLOTS - (2) plots, 4 graves at Pinelawn. $1,200. pr. 751-8223.

AIR COND - Sears 8500 BTU. 736-2836.

TAPE CASSETTES - quality C-90, fe02, Cr02, retail $4-$5, $2.50 ea. 10 minimum. Ext. 2521 or 928-8379.

STUDIO COUCH - opens to sleep 2, rust color, good cond; set of 24 books,. Universal Standard Encyclopedia, 1956-57 edition. Mary, 727-0552 after 6 p.m.

CONSOLE STEREO - custom wood cabinet, excel components. Best offer. 369-2151.

SUEDE JACKET - rust color size 9-10, hardly worn. Ext. 3636.

LIVING ROOM SET - green overstuffed, $185; bedroom set, grey modern, $185; G.E. dryer, excel cond, gold. $175. 744-3792.

GASOLINE ENGINE - 8 HP, cast iron, Horizontal shaft, good cond, $75. Walter, Ext. 3397 or 567-9025 eves.

LAWN MOWER — Craftsman 18" reel type, 2¼ HP w/grass catcher, $70. 744-7461 after 5 and wkends.

CONTEMPORARY SOFA - and chair, earth tones, good cond. $100. Jayne, Ext. 7597.

SKI SUIT OVERALLS - ladies small size 8 black w/jacket, like new, $50; girl's large, $10; Aquarium 20 gallon complete set up, $35; also fireplace tools, $20. Ext. 2961.

TV ANTENNA - for Camper w/brackets and lead-in, $10; 84" round bed w/yellow satin sheets, $150. Bob, Ext. 4547 or 473-3987.

ELECTRIC GUITAR - solid body, 2 pickups, perfect cond, $25. Azzara, Ext. 4758.

2'x5' OAK - fluorescent ceiling light for kitchen or den; puch type lawn mower & catcher, $15; Spreader, $10; pool ladder, $15. Ken, Ext. 4421 or 744-0722.

WOODEN OFFICE DESK - 34x60, 6 drawers, fair-good cond. $35. 928-8224.

STORM & SCREEN DOOR - white enamel w/frame 36½x80. $25. 281-8538.

COLOR TV - 25" RCA small console, nice cabinet, works, as is. $50. Duke, Ext. 4279 or 289-3586.

BOWLING BALL - approx. 16 lbs., $4; baby bouncer, $4; dice game, $4; tire 735-14, $10. Ext. 4267.

AIR COND - 6,150 BTU Emerson, $50. 475-5543.

COFFEE TABLE - Mediterranean & 2 end tables. $80. 732-4821.

AIR COND - Airtemp, 6000 BTU, used only 2 wks, 35% off discount price. $175. 265-0501.

PIONEER - KP292 car stereo cassette player, auto-EJ, fast forward & reverse & more. $45. Bill Espensen, Ext. 3992 or 298-4172.

BICYCLE - boy's 20", Schwinn 3 spd. $20. Ext. 4166. VIOLIN - full size, made in China, $85;

trumpet Lafayette France, $80; Hohner Melodica, $12. Al, Ext. 3354.

DOG MATTRESS - rectangular 21"x32", self contained bed. $12. Ext. 4166.

MOTOROLA - HiBand police station base transceiver w/clock, $50; Motorola LoBand mobile, $40. Al, Ext. 3354.

FIREPLACE SCREEN - black w/brass trim, width 37¾" by 30½"H. $20. JoAnne, 727-7796.

TOASTER OVEN - $30; Oriental rug, $20; stair carpet, $10; washing machine, $10. Tom, Ext. 3128.

WALNUT LIQUOR CABINET - $25; smoke stand, $10; spinning wheel planter, $20; step-end table, $15. 929-6148.

TRS-80 MOD 1 COMPUTER - 2 drive floppy disk system w/line printer & tables. $2,700. Ext. 2504.

COAL STOVE - Surdiac 508, 25,000 BTU, used 1 yr. $450. J. Lynch, Ext. 4510 or 744-0843.

GENUINE FIESTAWARE - approx 40 pieces, excel cond. $85. Carl, Ext. 4420 or 722-4644.

MARIGOLD PLANTS - mixed colors, $1.10/doz. Bill Stars, Ext. 4279 or 298-9648.

RADIATORS - (2) HWH for home, 4"x30"25". $5 ea. 281-9504.

BICYCLE - men's 3 spd Schwinn, excel cond. Bill, Ext. 4774.

PUPPIES - FREE, mother Labrador & shepherd. Ext. 3805 or 981-5993.

Real Estate

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

For Sale

RIVERHEAD AREA - mobile home 10x50, 1 bdrm, stove, refrig, washer/dryer, tool shed, covered patio, air conditioner. Ext. 3138.

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

SHOREHAM VILLAGE - custom ranch, 3 bdrms, 2 baths, fam. rm w/fp, d/r, l/r, gourmet kit, 2 car o/s garage, 0.8 acre, w/w throughout, new oil burner, good financing. Walk to priv. beach. Tennis, club. 821-0890 after 5:30 p.m.

PATCHOGUE VILLAGE - 3 bdrm, 2 baths, l/r w/fp, d/r, kit, bsmt, fenced. $45,000. 1/3 down. Owner will hold mortgage. 475-5150.

EAST BRENTWOOD - 3 bdrm ranch, completely redecorated. Assumable mortgage. Ext. 3284.

For Rent

MEDFORD - 1 bdrm apt., full kitchen, l/r, full bath, w/w carpeting throughout. Priv. entr. Available. Aug. 1st. $300/mo. incl. all util. Anne, Ext. 3336 or 475-8456.

BERKSHIRES CHALET - 3 hrs. from NYC: 3 bdrms, 2 baths, fully equipped kit, elect. heat, deck w/spectacular view, near lake, hiking trails, 1/2 hr. from Tanglewood Theater. 929-6946 after 6 p.m.

EAST SETAUKET - 3 bdrm house, l/r, d/r, eik, fam. rm. w/fp, 2nd story deck, gas heat $580/mo. + util. 924-4685 eves.

N. SHIRLEY - 5 min. to BNL, large room w/2 beds, reasonable. Call for info. 924-0960.

N. PATCHOGUE - air cond. 2½ rm apt., furnished and cablevision hook up, priv. entr, 11 miles from Lab, no pets, single only. $290/mo. pays all. Ken, Ext. 5042 or 289-3917 eves.

MIDDLE ISLAND - 3 bdrm on Carmen's River, swim, fish & boat. 5 min. from Lab. $500/mo. 924-3755.

WADING RIVER - 1 bdrm apt. on lower floor of house, 1 blk. priv. beach, Wildwood Park, 10 mi. to BNL. Quiet individual. 8/1-12/15. $250/mo., util. incl. 929-4180 until 10 p.m.

Wanted

WHITE SPOKE RIM - for Ford or Jeep, 15"x8". Toni, Ext. 2907.

ADVANCED FIRST AID BOOKS - for class for under privileged kids. Leave at Fire House.

600x12 TIRES - and leaf shredder. 744-3289 after 6 p.m.

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

PROJECTOR - Dual or Super 8mm, reasonably priced. Lou, Ext. 2034.

MEN'S BIKE - 5 or 10 spd, good cond. Ext. 4045 or 289-5770 after 6 p.m.

VIOLIN - full size, good cond; also inner tubes of old tires. Ext. 2616 or 751-5868.

RIDE - for beginner swimmer, Patchogue to lessons at Lab. Mon, or Fri. Will pay. Peggy, 289-7657 after 6 p.m.

ADAPTER - 220V, 50Hz to 110V, 60 Hz adapter or TV set designed to run on 220V, 50Hz. Ext. 3869.

BEAUTY SALON EQUIPMENT - Shampoo, sink & chair, Hydraulic chair. Price reasonable. Fred Kuehl. 282-4823 or 588-2268.

MINERALS - Collections, old mineral books, any language. Plotkin, Ext. 4717.

CUSTOMERS - for Bellport Methodist Church Thrift Shop. Tues. thru Sat. 10 a.m. to 4 p.m. 185 So. Country Rd. (behind Church).

LATHE JEWLERS - Jewlers tools; also clocks for use by student clock maker. Free or very low cost. Ext. 3536.

AMBITIOUS PERSON - part time research, advertising & marketing, for info call 732-6647.

METRONOME - in good working cond. Ext. 3786.

STEERING CONTROLS - for runabout. Shift control for 1967 Mercury outboard. Ext. 4237.

USED FARM EQUIPMENT - 722-4144.

PROP - for Evinrude 140. Ext. 2482.

APARTMENT - 2 bdrms (Coram area) starting Sept. 1st. Pushpito, Ext. 4360 or 732-5804 eves/-wkends.

FREEZER - in good running cond. & reasonably priced. Mike, 732-5454.

PEOPLE - interested in attending Aerobic dancing class on site. Linda, 689-8740.

DEHUMIDIFIER - Arthur, Ext. 4049/2400.

VALIANT OR DART - 1964 thru 1970 or other reliable vehicle below $600. Ext. 4214 or 475-5543.

Car Pools

BELLPORT/E. PATCHOGUE - wish to join existing or start new. Jim, Ext. 3851 or 286-2557.

MASSAPEQUA/FARMINGDALE - Points west, meet off Exit 32 So. State Pkwy. Plotkin, Ext. 4717.

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

SELDEN - student needs ride for next six weeks of summer, willing to share expenses. 736-1747.

Lost & Found

LOST - German Shepherd male, black/tan, red nylon & flea collars. Shoreham area. Nick, Ext. 2490.

Services

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

HOUSE SITTER - available to care for your house (and animals/plants if necessary) while you are on vacation. Completing PHD project & in need of temporary quarters. Ext. 2948.

PROFESSIONAL CHINESE INSTRUCTOR - experienced NYU Teacher, reasonable rates. Frank, Ext. 4353 or 282-2520 eves.

SPARE TIME JOB - I earn over $20K/yr. in spare time, you can also. For info call 732-6647.

DESIGNER - experienced seamtress for dress making, alterations, home decor. Derry, 878-8321.

BABYSITTING - Mother willing to babysit, Shirley area, lots of love & care, good references. Mary, 399-6128.

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

BABYSITTING - Teenager looking for babysitter/mother's helper job for the summer. Experienced, Coram, Selden, Centereach area. 732-5829.

SAILING - Daysails, Moonlight sails, cruising catboat, leaving Bayshore or Fire Island, complimentary wine. 666-1477.

LAWN MOWER - sales & repairs. Joe, 475-8440.

HAVING A SHOWER? - Bridal chair, wishing well, umbrella for rent, all for $15. 475-0037.

PROFESSIONAL TYPING - 14 yrs. experience in typing technical & legal documents. 90 words per min. 878-0074 after 6 p.m.

HOUSE CLEANING - 3 days wkly or monthly, references provided, also babysit & housesit. 924-3755.

HAVE TRUCK WILL TRAVEL - any job, yard, house, basement clean-up, hard-steady-efficient worker. Ext. 3838.

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

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

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

TENNIS LESSONS - for beginner, intermediate & advanced players. Reasonable prices. Bill, 289-2691 after 5:30.

WEEDING/GARDENING - yard work done, reasonable rates. Hamptons area. Linda, Ext. 4478 or 728-2586.

POOL SERVICE - reliable, cleaning, repairs, maintenance, emergencies. 727-4186.

FIRESIDE CHIMNEY SWEEPS - all types of flues. Special Summer Special $10. off. July & Aug. '81 only. Bill, 584-6425.

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

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

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