BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Brookhaven House "Oozes Energy Efficiency"

The Brookhaven House combines traditional home design with significant energy saving features.

The sun shone through its many windows, and the Brookhaven House "in harmony with its environment" was dedicated at noon on Wednesday. The attractive house was cited by many speakers as being a forerunner of things to come in home construction. "In fact," said Congressman William Carney, "I look forward to the day when there will be tracts of houses on Long Island similar to this one."

Representing DOE at the dedication were Robert Bauer, Manager/Regional Representative, Chicago Operations/Regional Office; Theodore Kapus, Deputy Director, Office of Buildings and Community systems, Washington, D.C. and David R. Wilson, Director, Office of External Affairs, Region II. They praised the design of the house for the creative use of solar energy, and BNL for "another significant contribution." Kapus said the house "oozes energy efficiency in an area where heating has gobbled up much of our income."

Bernard Manowitz, Chairman of BNL's Department of Energy and Environment, noted that the house demonstrated to both builders and the public that such a house was a real possibility for the Northeast, was affordable and comfortable. Bruce Anderson, chairman of the Board of Solar Lobby, stressed that it was an opportunity for the individual to address the challenge of our time, namely, to reduce our dependence on oil.

The dedication ceremonies were preceded by a sizable press conference, at which several people directly involved with the design and construction of the house were present to answer questions. They were Ralph Jones, BNL Project Manager; Paul Pietz, Total Environmental Action, Inc. Project Manager (designers of the house); Anthony Tortora, President, Thermal Comfort, Inc. (builders of the house), and DOE officials, Theodore Kapus and Jean Boulin.

The innovative one-family home combines the passive use of solar energy with natural thermal storage. Although the house has some unusual features, it does not require complex technology to construct. Widely available building materials are used, and the construction techniques are those currently familiar to builders.

The dramatic energy savings are the result of a good basic energy-conserving design, including an energy-efficient plan with main living spaces on the south side and buffering spaces to the north; a well-insulated and tightly constructed envelope, or shell, which retains as much heat as possible, and an efficiently sized heating plant.

Some Major Features

Energy savings of up to 80% are accomplished by significantly increasing the amount of south-facing glass. (Approximately 60% of the south wall surface is glass.) All the windows in the house are triple-glazed. The southern exposure results in a large input of solar energy during sunny days. Much of this heat energy is absorbed by carefully sized thermal mass walls which store the heat and later slowly release it into the house to replace purchased energy during the night.

The thermal mass walls are constructed of paving brick, which is denser than other brick types. Part of the brick wall is enclosed by an attractive greenhouse, or sunspace, which traps the sun's heat so that the brick can absorb it. The rest of the thermal mass is a "modified Trombe wall," with triple-glazed panels which trap the heat, mounted a few inches from the paving brick. The heat slowly penetrates through the thermal mass and by nighttime the warm wall radiates heat into the interior of the house.

Heating Costs Reduced

The design of the Brookhaven House will result in heating costs that are a fraction of those encountered in typical homes. The annual heating cost will be about one-third of that of a modern home built to the latest New York State Energy Codes, and less than one-fifth of that of a home built before present energy standards were adopted. It is estimated that in the New York area, only 130 gallons of fuel oil per year would be needed to heat the house.

Instead of a fireplace, the house contains an airtight wood stove surrounded by thermal mass walls. Current projections indicate that by burning one cord of hardwood in the stove (with the stove doors closed), a homeowner could get through a typical Long Island winter without using the furnace.

Monitoring

An 80-channel data acquisition system, which will record temperatures and other variables throughout the house, has been installed for monitoring performance over the coming winter and through next summer. The data will be recorded on magnetic tape and analyzed using a Tektronix 4051 microcomputer. Although the house will be unoccupied during the first year of testing, occupancy can be simulated by computer.

Tours

Plans are being made to show the house to architects, engineers and builders to encourage them to adopt similar design features. The only public tour of the house, currently scheduled, will be on Saturday, September 20 and Sunday, September 21. Employees toured the house yesterday, and it will be open for their inspection today between the hours of noon and 7 p.m.

Gerald Dennehy, head of DEE's Conservation Program Management Group, has overall responsibility for the project.

The Brookhaven House was designed by Total Environmental Action, Inc., of Harrisville, New Hampshire, under contract to BNL. The work was funded by DOE's Office of Buildings and Community Systems, Buildings Division.

Representative William Carney (center), together with Laboratory Director George Vineyard (left), and Riverhead Town Supervisor Joseph Janoski, "cut" the traditional ribbon with a fresnel lens.

—Photos by Humphrey

In the greenhouse, or sunspace, DEE chairman Bernard Manowitz talks with Theodore Kapus, Deputy Director of DOE's Office of Buildings and Community Systems.

Safety Alert

Summer is over, but before you put away your garden sprayer, read the following notice put out by the U.S. Consumer Product Safety Commission.

More than 40,000 air-compression home and garden sprayers used to disperse pesticides and other chemicals are being recalled by their manufacturer because the product may explode or rupture during use. The recall is being conducted voluntarily by D. B. Smith and Company, Inc., of Utica, N.Y. in cooperation with the U.S. Consumer Product Safety Commission.

The sprayers are made of galvanized steel with a tank capacity ranging from 1.5 to 4.0 gallons. They are equipped with a hand-operated pump top to pressurize the tank and a metal spray nozzle attached to a rubber hose.

The firm has conveyed to CPSC 49 consumer complaints involving the sprayers, including reports of 43 injuries to consumers since April 1978. Injuries reported include severe facial and dental injuries and broken arms and hands which were suffered when the sprayer bottom blew out, propelling the sprayer and its contents upward with explosive force.

The hazard was created by an improperly located weld on some sprayers which weakens the bottom, causing a rupture or explosion when the sprayer is pressurized.

The potentially defective sprayers were manufactured from June 1977 to June 1980, and have been sold nationwide in hardware stores and other retail outlets for approximately $15 to $30. The manufacturer has instituted improved quality control measures to eliminate the problem in sprayers manufactured after June 1978.

The recalled sprayers have been sold under a variety of brand names and model numbers. These include:

"SMITH" sprayer models 19GP, 21GP, 25GP, 28GP, 40GP, 38GQ and 56GQ.

"SERVISTAR" brand sprayer models 15049 and 15055.

"PARCO" sprayer models F-4, F-7, F-10, F-12, MC-38 and MC-56.

"STATE CHEMICAL" sprayer model 12-A.

"METRA CHEM" 3-¼ gallon sprayer (no model number).

The sprayers must display one of the following date codes, in addition to a brand name and model number listed above, to be subjected to the recall: B, BA, BC, S11, S12, R1, R2, R3, R4, R5, or R6.

Date codes are visibly etched into the side of the sprayer below the directions, "Fill to this line," and all model numbers can be found on the paper label affixed to the product. Other models made from stainless steel and polyethylene plastic are not being recalled.

Consumers should empty the contents; remove the strap, pump, and hose-and-nozzle assembly; and mail the metal canister for immediate free replacement to Marimar Manufacturing Company, Inc., P. O. Box 359, Chadwicks, New York, 13319, or return it to the place of purchase for handling. Consumers will be reimbursed for postage costs.

Retiree

Mort Rosen

Robert F. Gaffga, a Sr. Technical Specialist in the Biology Department, will retire on September 15. He has been with the Laboratory since May 12, 1948. In October he will move to Spring Hill, Florida, and start decoraing his new home.

Arrivals & Departures

Arrivals

Edward A. Deutsch	Medical
Israel Dostrovsky	Chemistry
Paul D. Kalb	Nuclear Energy
Peter C. Lehmann	Central Shops
Norman S. McIntyre	Nuclear Energy
Michael S. Seidman	Adm. Sys. & Data Proc.
Eric J. Siskind	Accelerator

Departures

Alex Galperin	Nuclear Energy
Peggy A. Rosado	Energy & Env.
Charles A. Brinkman	Applied Math.
Catherine P. Chia	Biology
Donna S. Pfeiffer	Medical

Selected Reading

Nature 286 (5776), August 28, 1980
Plagiarism, piracy and principles. 831-2

New Sci. 87 (1216), August 28, 1980
Skharov stymies U.S. Soviet scientific ties. 635-6

Sat. Rev. 7 (12). August 1980
What's fueling the popular-science explosion? I. Asimov. 22-6

Time 116 (10), September 8, 1980
Education: Battle over bilingualism. 64-5

Apply Now!

Parents are reminded to pick up application forms for the AUI Trustee Scholarships at the Office of Scientific Personnel, Bldg. 460. Deadlines for the first Scholastic Aptitude Tests and Achievement Tests are fast approaching and students should be getting their ducks in line.

To be eligible for the $1500 per year college scholarships (up to four years), the applicant must be the son or daughter of a BNL employee who began regular full-time, or regular, eligible part-time employment no later than January 1, 1980. Children of retired employees or of employees who died when in regular service at the Laboratory are also eligible. The eligibility of stepchildren will be established if the employee regularly claims the child as a dependent for income tax purposes.

Completed application forms must be in hand at the Educational Testing Service, Princeton, N.J., no later than December 1.

Stockrooms To Close On September 19

In order to complete the annual Physical Inventory of stores materials, all stockrooms will be closed on Friday, Sept. 19. Users are requested to withdraw sufficient supplies prior to the normal stockroom closings at 3:00 p.m. on Thursday, Sept. 18. Emergency requirements can be obtained by calling the Supply and Materiel Division office, Ext. 2972 for approval and withdrawal instructions.

The closing of stockrooms does not affect departmental stockrooms or the delivery of Liquid Nitrogen, Liquid Helium, or Dry Ice. Your cooperation in keeping emergency requests at a minimum is appreciated.

In Appreciation

Bless the BNL Fire Department for the love and respect shown to Raymond E. Farmer at the time of his death. Bless the IBEW Local Union 2230 for their devotion, and bless the many friends from BNL who were there for the last "goodbye." From the bottom of our hearts–Thank you!

–Thelma, Rayme and Tirre Farmer

BNL Lecture:

The Anchovy Story

The recent Global 2000 Report to the President now estimates a maximum annual yield of all marine fish at 60 million metric tons, down 40 million metric tons from the1976 prediction. What this implies, says oceanographer Sharon Smith, is that the sea is no longer a magical source of protein with which we can balance global food budgets.

Although technology has made it possible to harvest just about all the fish available, it has, for instance, also been responsible for reducing the anchovy stocks to a fraction of their original size. In turn, this decline led to a 44% increase in the price of chicken between 1972 and 1973, because anchovy meal was a major component of the diet of U.S. chickens.

The story of the anchovy fishery is also the story of an oceanographic phenomenon known as upwelling, and of natural variability in the ocean. "Oceanography and Anchovies" will be the subject to be discussed by Sharon L. Smith in the first Brookhaven Lecture of the season on September 17, at 8 p.m. in Berkner Hall.

In 1976, the maximum annual yield of anchovy harvested off Peru was predicted at 12 million metric tons (m.m.t.). In actuality, it turned out to be 3.5 m.m.t. By 1977, the catch had dropped to about one m.m.t., at which level it still remains.

But overfishing is not the whole story. The study of the Peruvian coastal upwelling by oceanographers from the United States began in the early 1960's and reached a peak in 1976 and 1977. Areas of coastal upwelling off northwest Africa, southwest Africa, Peru, and Baja California are associated with some of the world's major commercial fisheries. In the 1970's a major experiment in oceanography studied the upwellings off Peru, Baja California and northwest Africa with the hope that the natural variability within and among the areas of upwelling could be understood and the fisheries regulated in a rational way.

Sharon Smith

In her lecture, Smith will use the Peru case primarily to describe what constitutes an upwelling, the types of data collected in multidisciplinary oceanographic experiments, and the present understanding of what happened to the anchovy.

Sharon Smith has been on the staff of DEE's Oceanography Division since March 28, 1978. She received her B.A. from Colorado College, a master's degree from the University of Auckland, New Zealand, and her Ph.D. in zoology from Duke University. Before coming to Brookhaven, she held a postdoctoral appointment for three years at Dalhousie University, Nova Scotia. In the course of her research, she has participated in scientific cruises in various parts of the world.

A buffet supper is served at 6:30 p.m. at the Brookhaven Center before the lecture. Many find it convenient and it is a pleasant way to meet members of other departments. Reservations for the buffet should be made in advance by calling Ext. 3541 before 5 p.m. on the day of the lecture.

A 20th Birthday

This year marks the 20th anniversary of the Brookhaven Lectures. The first lecture was given on November 16, 1960 by Edward M. Purcell, Harvard University, and, at that time, a Research Collaborator in BNL's Physics Department. His topic was "Radio Astronomy and Communication Through Space." Since then, 175 lectures have been given covering the many facets of research at the Laboratory.

The lecture series is presented to keep the BNL community abreast about what is happening in these diverse areas. It has been designed to appeal to those interested in a wide variety of scientific subjects, not just to experts in the field being discussed.

Suggestions from employees as to future programs are always welcome. Anyone who has a suggestion, or wishes further information, can contact any member of the Brookhaven Lecture Committee listed below:

Walter D. Tucker (Chairman)	DEE
Louis P. Remsberg (Secretary)	Chemistry
Edward G. Gill	Accelerator
Howard Weisberg	Accelerator
Charles I. Goldstein	Applied Math
Stephen L. Padwa	Applied Math
H. George Latham	Biology
Sanford Lacks	Biology
Elaine Rowland	Chemistry
James L. Alberi	Instrumentation
George T. Walczyk	Instrumentation
Arthur Forman	Medical
Betty L. Heldman	Medical
Ralph J. Cerbone	Nuclear Energy
Robert J. Walton	Photo & GA
H. Ronald Manning	Physics
Mark Sakitt	Physics
Gertrude S. Goldhaber (ex-officio)	Physics
Myron C. Ledbetter (ex-officio)	Biology

IAEA Notices

Periodically, the International Atomic Energy Agency posts notices of openings on its technical and administrative staff. These positions are generally for a period of two years in Vienna. Anyone interested in investigating the openings should contact the Office of Scientific Personnel, Bldg. 460, ext. 3338. OSP maintains a file of IAEA vacancy notices which describes the appointments available in some detail.

Stony Brook Events

Recital: "Ragtime, Pop and Early Jazz," featuring pianist/composer Peter Winkler, clarinetist Jack Kreiselman, vocalist Chris Plevyak. Friday, September 12, 8 p.m., Recital Hall Fine Arts Center. Tickets are $5. Information: 246-5678, 5671.

Dance: Battery Dance Company presents "Bach to Bach." Saturday, September 13, 3 p.m., Fine Arts Center Plaza, free. Evening performance, 8 p.m., Main Auditorium, Fine Arts Center, students and senior citizens – $2.50, others – $5. Information: 246-5678.

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Islanders Tickets

The "champs" will face Boston, Philadelphia, Buffalo, and the NY Rangers in pre-season games on September 20, 23, 27 and 30, respectively. BERA has eight tickets for each one of these games and is offering on-site employees the opportunity of buying them at a two-for-one price of $13.00. There is no limit as to the number of tickets one may buy.

First-come, first-serve at the BERA Film Service Office in the Cafeteria.

WW I Casualty

While the new Camp Upton exhibit was being assembled last week at the Exhibit Center, an artifact, a bayonet with scabbard, was taken. The loss occurred at lunchtime on Friday, September 5.

The bayonet belonged to Raymond M. Burns, Senior, Commander of Veterans of WW I, Inc., Patchogue Barracks No. 2981. It was his own bayonet, used while in the 77th Division at Camp Upton in 1918. Mr. Burns donated it to the Lab in March 1979. It had great sentimental value to him and historical value to the exhibit.

Anyone with information on the whereabouts of the bayonet and scabbard should call Janet Hoefling, Ext. 2400, Building 184.

Softball

League I

Playoff Games:
Source I 3 – Blue Jays 2
Six Pax 14 – Ravens 13

Final Round:
Source I 10 – Six Pax 4

Final Standings

	Wins	Losses
Ravens	12	3
Blue Jays	11	4
Source I	7	8
Six Pax	6	9
Phoubars	6	9
Deegenerates	3	12

League II

Makeup Game:
Dirty Six vs. Cardinals cancelled

Playoff Games:
Roga 15 – AMD 14
Moles 7 – Titans 6

Final Round:
Moles 18 – Roga 8

Final Standings

	Wins	Losses
Roga	12	3
Moles	11	4
Titans	9	6
AMD	7	8
Dirty Sox	4	10
Cardinals	1	13

League III

Final Playoff Game:
Brewmasters 10 – Nuke Powers 4

Doug Humphrey

Students in a BNL apprenticeship program assembled the framework for a solar hydroponic greenhouse, which they finished building at the end of their summer term last week. With solar assistance, it can grow enough produce to feed a family of four year-round.

Gardening Under Water

Grow plants without soil? It isn't a far fetched idea, just all wet.

Plants can be grown in a water solution that contains all the nutrients normally found in soil. It's called hydroponics, and it works. Last month, students from the DOE sponsored Apprenticeship Program for Minority Students built a hydroponic greenhouse, which is now on display at the Exhibit Center.

The greenhouse is a prototype solar assisted unit designed by Arthur Pitschi, one of the teachers in the program. Plants are set in troughs made of plastic pipes, their roots held in place by peat moss. A nutrient solution (tap water and nutrient salts) is pumped up to the peak of the building, and by gravity flow, runs past the plant roots. Because the solution is collected and reused, the system can run independently for about six months. No day to day weeding, watering and fertilizing for the gardener.

Better yet, gardening pleasure is extended through most of the winter season with the solar heating system: During the day, water can be pumped through heat absorbing plastic sheets attached to the walls, and the heat stored in water compartments in the floor.

The greenhouse project was supported by a grant-in-aid from the Alexander Hollaender Fund, through the Biology Department. A former director of the Biology Division at Oak Ridge National Lab and now a consultant to AUI, Hollaender established the fund in 1978 to strengthen the Biology Department and its relation to the community.

Swimming Lessons

A course of swimming lessons, open to all on-site employees and their adult dependents, will be given at the pool starting Wednesday, September 24 at 5:15 p.m. The course will consist of one lesson per week on nine consecutiveWednesdays.

Those interested may register at the pool during open hours no later than Friday, September 19. A fee of $15 will be due at the time of registration. (Checks payable to BERA.)

Mountain Club

The Mountain Club will camp out at Cedar Point on the weekend of September 20. Anyone interested in this trip should contact Steve Spencer, Ext. 3401 for details.

Nursery School

The Upton Nursery School will begin classes on Monday, September 15. Children enrolled should receive an information packet by Friday, September 12. If not, please contact the secretary, Ruth Fernow, 928-8465. If you have any questions, call Ruth Fernow, Karen Brunschwig, 924-0030, or Colin Stewart, 286-9616.

Bowling

Bowlers for the various leagues are still needed as well as anyone interested in being an occasional substitute. As the leagues are run on a handicap basis, you need not be a pro. If you are interested or require further information, contact Dick Larsen Ext. 3464, Betty Jellett Ext. 3639 or Helen Keeley Ext. 4649.

Weekend Tour

Highlighted this weekend is the Lab's research on environmental effects of acid rain. Lee Conway, Land and Freshwater Environmental Sciences Group, will talk about the acid rain study in the Adirondacks, where BNL scientists are comparing three lakes and their surrounding watersheds. Conway will illustrate his talk with slides showing equipment and sampling techniques.

Visitors to the Lab will also see Brookhaven's "Quest," take a guided bus tour of the site, and visit the Exhibit Center.

Bicycling

The big event of L.I.'s fall bicycling season is the Hi-Point Hundred, a one-day tour on Sunday, Sept. 21. It is actually 8 rides with 2 different starting points and 4 distances. The starting (and finishing) points are Nassau Community College north parking lot and Suffolk Community College parking lot, off College Road in Selden. To qualify for an AYH patch, the ride selected must be finished within the time given in the table:

Distance:	25	50	100	125
A.M. Start Times:	10:00	9:00	7:00	6:30
Duration:	3	5	10	12

You can get an LAW patch for the 100 miler by finishing in 12 hours. The ride name comes from the many hills encounted along the route. Registration is at the starting point, so plan to get there a little early. The fee is $4, which pays for patch, lemonade and bananas.

The second ride is on Saturday, September 27 and is a fund-raiser for the March of Dimes. It's fifty miles long and starts at 9:00 a.m. at the Middle Island Shopping Plaza on Rt. 25 (Jericho Tpke) at Rocky Point Road, site of Carl Hart's bicycle shop. The advance registration fee is $5, which gets you a March of Dime Bike Tour T shirt. Send the money and shirt size (sm, med, lrg, X lrg) to March of Dimes Bike Tour, 2 Robbins Lane, Jericho, NY 11753 by September 15. Registration at the time of the ride is $2 more.

Cafeteria Menu

Week Ending September 19,1980

Monday, September 15		
Cream of tomato soup	(cup)	.45
	(bowl)	.55
Salisbury steak & 1 veg.		1.45
Apple pancakes & sausage		1.40
Hot Deli – Roasted turkey breast	(on bread)	1.50
	(on roll)	1.60
Tuesday, September 16		
Philadelphia pepper pot soup	(cup)	.45
	(bowl)	.55
Tamale pie & 1 veg.		1.45
Roasted pork loin & 1 veg.		1.50
Hot Deli – Roast beef	(on bread)	1.55
	(on roll)	1.65
Wednesday, September 17		
Beef noodle soup	(cup)	.45
	(bowl)	.55
Broiled fillet of fish & 1 veg.		1.45
Roasted chicken w/stuffing & 1 veg.		1.50
Hot Deli – Grilled Reuben		1.45
Thursday, September 18		
Pork & cabbage soup	(cup)	.45
	(bowl)	.55
Pizza & 1 veg.		1.40
Sauerbraten & potato pancake		1.55
Hot Deli – Smoked, baked ham	(on bread)	1.45
	(on roll)	1.55
Friday, September 19		
Manhattan clam chowder	(cup)	.50
	(bowl)	.60
Shells w/white clam sauce & garlic bread		1.35
Breaded pork chop w/apple sauce & 1 veg.		1.55
Hot Deli – Fried fillet hero		1.45

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, age 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 nonscientific 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: Opportunity, for present Laboratory employees.

1453. MATERIAL HANDLER (two positions) - Supply and Materiel Division.

1454. S&M CLERK - Supply and Materiel Division.

1455. SECRETARIAL POSITION - Requires an AAS degree in secretarial science or equivalent experience performing diverse office duties including ability to take shorthand. Will be responsible for providing general assistance to a Contracts Specialist. Contracts and Procurement Division.

1456. SECRETARIAL POSITION (part time) - Requires excellent secretarial and communications skills. Will function as secretary for three editors of a physics journal. Duties include processing manuscripts, typing correspondence and maintaining a filing system. Shorthand is desirable. Physics Department.

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

1457. PATROL OFFICER - Requires AAS in criminal justice or equivalent experience performing diverse security duties for a large organization. Excellent communication skills are necessary as well as ability to work shifts. Will participate in comprehensive training program in order to become knowledgeable of site and police procedures. Safety and Environmental Protection Division.

1458. TECHNICAL POSITION - Requires AAS or equivalent background in electronic technology. Experience with systems and/or peripheral components preferred. Will participate in maintenance of large scientific computing facility. Involves possible shift work. Re-posting of Job No. 1452. Applied Mathematics Department.

Autos & Auto Supplies

WHEELS - and tires (4) mounted Western spoke wheels w/10 x 15 Gillette Trailrider tires, almost new. $325. Glenn, 289-0413.

K-Z 1000 - stock motorcycle seat, like new. $15. E. Edwards, Ext. 4027 or 286-1121.

69 FORD SHOP MANUALS - (5) volumes, covers all Ford Motor Co. cars. $5. Dennis, Ext. 4259 or 736-2534 after 6 pm.

72 BUICK - Estate Wagon, full power a/c, low mileage, clean inside and outside. Susan, 399-0132.

NEW TIRE - polyglass raised letters, F60-15. $25. Joe, Ext. 2012 or 2005.

74 JEEP - pickup, V8 auto, FM, camper model, trans cooler. Ext. 4279.

SNOW TIRES - (2) F78-14 w/rims, lots of tread, bias belted. $50/pr. Pete, Ext. 4324.

76 CHEVETTE - a/t, 2 dr, good cond, good mpg. $2,050. Dick, Ext. 2486.

74 MAVERICK - 23 mpg highway, mechanically excel, new tires. Call Ravid, Ext. 2840, or Ext, 3243 starting Monday.

77 CADDIE - Sedan De Ville, 45,000 mi, outstanding cond, loaded w/extras. 473-8387.

64 DODGE DART - orig engine, good cond. $200 firm. Ext. 4853 or 473-4948 after 6.

75 CHEVY - Malibu, 4 dr, a/t, a/c, 91,000 mi, a good car! $1,950. 286-8517 after 5:45 pm.

AM RADIO - from 1980 Rabbit. Jay, Ext. 4994.

69 CHEVY - Caprice, p/s, p/b, Cruis-amatic, am/fm stereo, new exhaust, good cond. $475. Tom, Ext. 3703 or 286-1378 eves.

70 SKYLARK - mech good, hi-mileage, a/t, tape deck, new starter, battery, tuned, good student car. $400. Ext. 7658.

73 TOYOTA E/C - 4 spd, 30-35 mpg, must sell. $1,600. 732-3073.

78 DODGE - Aspen wagon, special edition, loaded, roof rack. $3,395. George, Ext. 7672 or 878-4383.

77 YAMAHA - 750 cc, shaft drive, 4,000 mi, very clean, cruise control, windjammer tour package. $1,795. 588-2008 after 5 pm.

71 VOLVO - gray, std, 2 dr. $1,000. Ext. 3369 or 929-6442.

74 BUICK - Estate wagon, 8 pass, loaded, excel cond, 60,000 mi, must see. $1,450. 475-6981.

TIRES - (4) Mich radials 185-14. $25 ea. Warren, Ext. 3464 or 924-7552.

MOTORCYCLE BATTERY - Wisco Roughrider RB-9, 6½"h x 5¼"l x3½"w, new, still in carton. $35. D. Vail, Ext. 7167 or 924-4058 after 5 pm.

71 VEGA - a/t, 4 cyl, good sta car, needs work. $225. 928-6469.

72 PLYMOUTH - Fury III, auto, high mi, runs good. $400. Schmitt, 234-1138 or 286-0913 after 6.

67 VW BUG - $600. Ext. 2434 or 475-8710.

75 PINTO - 50,000 mi, excel cond, std trans. $2,000. Dave, Ext. 4597 or 286-1074.

TIRES - (2) E78 x 14, belted, excel cond. $30. Dibyendu, Ext. 4461 or 3091.

75 BUICK - LaSabre, custom landau, low mi, am/fm 8 trk, spoke wheels, showroom cond, must see. Ext. 4581 or 286-1615.

72 CHEVY - Caprice sta wgn, 2 new tires/brakes/battery, good mi. $350. Len, Ext. 4487.

67 SAAB - sta wgn, engine and trans good, needs minor work, excel for parts. John, Ext. 2269.

72 HONDA - 500 cc, excel, black & silver. Pat, Ext. 3148 or John, 588-3359.

72 CADILLAC - Sedan DeVille, 70,000 mi, fully loaded, excel cond. $900. Ralph, Ext. 2050 or 744-8921 eves.

69 FORD - XL convertible, good cond. $900. Ext. 2069 or 941-9128.

68 CHEVY - wgn, V8-327 a/t, p/s, p/b, a/c, good tires, good transp. $200. Don, Ext. 3394 or 588-1367.

71 CADDY - Coupe DeVille, runs good, fair cond. Charlie, Ext. 4351.

SNOW TIRES - on Vega rim. $8. Fred, 473-1578.

68 CHRYS - Newport, good cond. $350. Ext. 3031 or 7107.

73 HONDA - CB750K, 16" rim, quartz h. light, seat, sissy bar, Contis, excel cond. $1,200 firm. 475-2090.

72 PONTIAC - Catalina, am/fm, a/c, new shocks, 80,000 mi. Asking $600. Robert, Ext. 3761 or 744-5079.

1979 Z-28 CAMARO - excel cond. Must sell. $5,500 firm. Glen, 473-1726.

4 MAGNESIUM WHEELS - fit 15" Ford Econ van, good condition. $140. Leon, 2973.

Boats & Marine Supplies

24' TYLER SLOOP - twin keel, new sails, sleeps 4. $5,600. Ext. 4232 or 286-3602.

10' SAILBOAT - styrofoam super snark lateen sail, needs patch. $70. 286-0259 after 4.

23' THUNDERBIRD - deep V78, 225 hp, Volvo i/o, UHF, CB APF recorder dot riggers canvas, etc. $4,500. 744-8041.

22' HOUSEBOAT - 65 hp, o.b., sleeps 2, in water Amityville. Ext. 3654.

Yard Sales

GARAGE SALE - Sept 12, 13 and 14, 5 Stony Brook Ave off Christian, wood, tools, riding mower, spray gun w/compressor and more.

Miscellaneous

ANTIQUE SEWING MACHINE - w/cabinet, excel cond. I. Merritt, 589-5126.

BOXSPRING - full size w/brand new steel frame. $25. Tom, Ext. 2959.

BOY'S BLAZER - navy blue, size 12. $15. Ext. 2543.

DICE GAME - battery operated. $3.50. Susan, Ext. 4207.

RUG - 46" x 142", gold tweed, $10; plastic runner, 12' long. $3. Ann, 286-2280.

ACCORDION - LaTasca, excel cond. $150. Frank, Ext. 4709 or 281-4607.

MEAT SLICER - hand operated. $10. Ext. 2301 or 2302 or 727-4515.

HEAT SCREEN - Sear fireplace screen, insulating glass doors, 1 yr old, fits 33⅛" to 39" wide, 20⅜" to 24¼" high. 941-4987.

MICROSCOPE - American optical. $500. Ext. 2115 or 744-0146.

LIMITED EDITION PLATE - 1979 LaScala Grand Opera Collection (ivory alabaster) w/certificate of authenticity. $45. Pat, Ext. 2452.

GALV FENCE - general purpose, 4' x 50', $20; jigsaw, 18" throat, no motor. $40. 589-2127 after 6 pm.

ROCK CLIMBERS - Summit magazine, July '63 - June '72. Dennis, Ext. 4259 or 736-2534 eves.

AIR COND - Airtemp, 6,000 BTU, used 2 weeks. 50% off list. 265-0501.

AREA RUGS - Indian Opasans, 6 x 9, 9 x 12, 11 x 18, excel cond. 698-4432.

BICYCLE - girl's 26", $30; bicycle baskets, $15. 928-1942 after 5 pm.

KARATE UNIFORMS - (2) new size 6's. $17 for both. Barry, Ext. 4533 or 727-5956.

BOOKS - Photography, Time/Life Series, complete set and index. $50. Fred, Ext. 4407.

BABY SCALE - excel cond, $10; baby car seat, excel cond, $10. Ext. 2145 or 751-7268 after 6 pm.

LAMP - Colonial, brass, brand new, never used. $25. J. Skora, Ext. 3431 or 744-9677.

PACHYSANDRA PLANTS - healthy & thriving, 25 plants for $2. Jean, 929-4522.

SOFA - green floral print, 84" long. 483-6657 after 7:30 pm.

AIRPLANE TICKET - one way N.Y. – Amsterdam, good till January. $100. 751-2709.

TRASH COMPACTOR - dresser, desk and chair, kitchen or dinette set, chandeliers (several) crystal. Ext. 4532 or 277-4091.

DESK - 7 drawer, kneehole, blond wood, 45" x 21" formica top, matching chair. $40. Ext. 3771 or 878-1471.

BICYCLES - (1) boy's 14", (1) lady's 26". $12 ea. Peg, 286-0615.

DOOR - new exterior, 30" x 86" 4 lite, 3 panel, hinged and drilled for lock set. Ext. 4702 or 928-7769.

WHEEL HORSE - tractor attachments; 19" Zenith color TV, table model. 929-4681.

STEREO CASSETTE - recorder, Fisher, best offer; fruitwood dining table 5'/40" w/pads, $75; Tensolator isometric musclebuilder, $15. Ext. 4622.

STEREO CONSOLE - am/fm 8 trk w/speakers, needs new turntable. $20. 744-5553.

LAWN MOWER - 18" Craftsman reel type 2.25 hp w/grass catcher, very good. $80. 744-7461 after 5 and weekends.

TORO LAWN MOWER - elec start, self propelled, needs work and parts. $25. Helen, 732-5166.

UTILITY TRAILER - 4' x 6' steel frame, leaf springs, 15" tires. $150. R. Bowman, Ext. 4672.

WOOD - full cord 8' x 4' x 4' cut and split, small for stove. $150. Pete, 281-7379.

FURNACE - oil hot air, $40; baseboard elec heater w/therm. $5. Paul, Ext. 4665 or 727-4859.

BEACH PLUM JELLY - fresh, delicious, 8 oz. Jenny, 286-3509.

WHEELCHAIR - folding Everest, Jennings, $225; walnut 5 piece bdrm set, full size, $300. 732-2744.

24' ROUND POOL COVER - $20; 24' round steel pool wall, $40, excel cond. Neil, Ext. 2023.

BABY ITEMS - crib w/inner-spring mattress, $55; high chair, $25; 5 drawer folding changing table, like new, $35; 3 dozen Curity pre-fold diapers, never used, in orig box. $6/doz. 698-3856.

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

BELLPORT VILLAGE - income property, 2 family house, wooded lot, downstairs l/r, eik, 2 bdrms and bath; upstairs large l/r, pullman kit, 1 bdrm and bath. Separate entr, garages. Near school, golf, tennis and dock facilities. $55,000. 286-8850.

WESTHAMPTON AREA - mobile home, 12' x 60', 2 bdrms, eik, stove, refrig, washer, laundry rm, dryer, 2 tool sheds, porch, patio, wooded landscaped plot. $11,500. 325-1112 after 5 pm.

LAKE RONKONKOMA - take over 7½% assum mortg on 3 bdrm ranch, l/r, eik, finished bsmt. $38,000. 981-2327 eves.

SHOREHAM - large 4 bdrm, 2½ bath colonial, wooded ⅓ acre lot on quiet street, 2 car garage, eik, fam rm w/fp, excel school dist, low taxes, north of 25A. $65,900. 744-4787.

CENTRAL ISLIP NORTH - 1 acre, hi ranch, 8 rms, 1½ baths, 24 x 28 sunken patio, possible M/D, many extras. Bob M., Ext. 2514 or 234-8564.

MASTIC BEACH - 3 bdrm ranch, corner lot, roofed patio. Pleasant location near water. Low 30's. 281-7531.

CATSKILLS - 8 rm, 4 bdrm, 2 baths on 3 acres, good road frontage on Rt. 28, and rear borders on Esopus Creek, full bsmt, Artesian well. $49,000. Terms. Hugh, 924-3293.

SOUND BEACH - 3 bdrm ranch, over ⅓ acre, fenced backyd, full bsmt, 5 appl, storms and screens, oak floors, low taxes 12" insulation. $37,000. Bill, Ext. 3617 or 744-3703.

MASTIC BEACH - 3 bdrm, panelled l/r, w/new w/w carpet, eik, outdoor and indoor front porches, complete insulation, elec heat, new asphalt driveway, treehouse, ¼ acre, taxes $550. $25,000. Chris, 281-7379.

STONY BROOK - 8 rms Colonial, 2½ baths, 2 car garage, expanded kit, 3 Vill. Schls, c/a, c/v, fp, reinsulation, 6% assumable mortg. $63,000. 246-7139 or 689-9409 eves.

VILLAGE OF PATCHOGUE - 8% cissum, 2 story, l/r, w/fp, 2 car garage 60 x 185. $10,000 takes over $31,000 mortg. 654-2141.

BELLPORT VILLAGE - older, fully insulated, two-story home, 4 bdrms, 2 baths, dining rm, finished basement, attach garage, f/p. Tranferrable 8½% mort. Short walk to village, schools and buses. 286-1699.

For Rent

PORT JEFFERSON STATION - high ranch house, 3 bdrms, 2 baths, gas heat, central a/c, 2 garages, complete den, bar, patio furniture, many extras. $600/mo. 473-1895 after 6.

MIDDLE ISLAND - spacious furnished rm in quiet home neighborhood, some privileges, 15 min from Lab 698-4622.

YAPHANK - 5 rm modern duplex apt, 3 mi from BNL, l/r, d/r, kit, 2 bdrms, full bsmt, and patio. $400/mo. 1 Mo security, includes heat and water. 581-2909.

SHIRLEY - close to Lab, kitchen facility, separate ent, studio style, $45/wk. Security. 732-3073 or 654-2304 after 12 noon.

Wanted

RIDE - to Stony Brook on Mon, Wed, and Fri at 8:30 am. Som, Ext. 3742.

TABLE RANGE - w/2 burners. Ann, Ext. 4959.

LUGGAGE CARRIER - molded plastic for auto roof, reasonable. Dennis, Ext. 4259 or 736-2534 eves.

GIRL'S VANITY TABLE - Ext. 4846 or 363-6940 after 5 pm.

ACCORDION - to rent or buy. Ext. 3113 eves.

APARTMENT - 1 or 2 bdrms, Huntington, Commack, Melville areas. Reasonable. 669-4479.

BABYSITTER - for 3 yr old in my home part time. References, transp required. Ext. 4974 or 473-0475.

LARGE CHILD'S WAGON - Peg, 286-0615.

HUMIDIFIER - reasonable; also set of 5 or 4 ft oars. Bob Dee, Ext. 2964.

PRESTOLITE ACETYLENE TANK - w/regulator, hose and torch for silver soldering. Dan, Ext. 3080.

BABYSITTER - on site for Thurs and Fri during Oct and Nov. 331-3724.

13" 30 SLOT - Western Mag wheel. Karl, Ext. 4068.

FULL SIZE PLATFORM BED - Donna, Ext. 2926 eves; 744-8063 days.

Car Pools

LEVITTOWN AREA - Exit 28 and 29 Southern State Pkwy, driver to join car pool. Bob, Ext. 3654.

VANPOOL - from Miller Pl, Sound Bch, Rocky Pt to BNL. Don, Ext. 3284.

SMITHTOWN - driver wanted. Ext. 3268.

Lost

MACAW - green/red head and tail, name of Charlie, known by his squawk. Ext. 2345 or 744-2069.

Services

CUSTOM CABINETS - and furniture, at reasonable prices, made by experienced craftsman. John, Ext. 2070 or 283-0223.

AUTO REFINISHING - all areas of body work performed, small car discounts. Bob, Ext. 2546 or 744-4047.

ROOFING AND SIDING - new roofs and re-roofing, free estimates, guaranteed. Kevin, 878-8450.

CARPETS INSTALLED - repaired, quick dependable service, free estimates. Jim, 821-0187.

BABYSITTING - 2 yrs and older, experienced mother, fenced yard, playmate, references. Shirley area. Donna, 281-8031.

BABYSITTING - your home or mine. 732-9517, ask for Denise.

CHIMNEY SWEEPS - f/p, stove, chimneys, prevent chimney fires, insured, Lab employee discount. Bill - Mike, 584-6425.

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

FLUTE - clarinet, saxophone; professional instruction and repair, your home or my studio. 399-3381 eves.

PIANO TUNING - and repair. Reasonable rates and conscientious service. 751-4985 for appointment.

EXPERT AUTO BODY - repair and conditioning. Carl, 698-6706.

FIREWOOD - split, seasoned oak 4' x 16' x 18". $110 delivered. 924-4284 after 5:30.

TIRES - new and used, all season, snow, reg. Repairs. Fred Usack, Ext. 4798, lunchtime.

CHILD CARE - 2 yrs and up, playmate, fenced yard, Bellport area, plenty of TLC. 286-2435.

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