BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Work Starts On Brookhaven House

—May have national impact, says Stelson

Dr. Thomas Stelson puts his back into BNL's solar energy effort as Lab Director George Vineyard awaits his turn.

—photos by Humphrey

Beginning of construction on the Brookhaven House was commemorated at a ground breaking ceremony last Thursday morning with DOE officials Thomas E. Stelson, Assistant Secretary for Conservation and Solar Energy, and Maxine Savitz, Deputy Assistant Secretary for Conservation, in attendance.

The Brookhaven House project started in 1978 with solar architect Ralph Jones of DEE working in conjunction with Total Environmental Action, of New Hampshire (TEA) – the building's designers. The passive solar home will be constructed to demonstrate how thermal mass materials can be used to cut heating costs in conventional single family housing, and is slated to be completed this summer.

During a short presentation at the construction site near the Brookhaven Center, Savitz said that the Brookhaven House will be a prototype for designers of homes to come.

"It's a pleasure to see a building like this (for scientific use) which is going to look like a real house – it's not expensive, is aesthetically pleasing, and will set an example for builders in the future," she said.

Stelson added that even though the Brookhaven House is small in terms of size when compared to other projects at BNL, its effect in terms of national impact will be great. Then Stelson, Savitz, and Jones took a spade full of earth to christen the project.

Afterwards, Stelson, who was appointed to his present position at DOE in January 1980, took time out from his first tour of the Lab to discuss the role of passive energy, and projects like Brookhaven House in the national energy picture. He believes passive solar energy, which doesn't use panels to store or transfer heat, can help Americans today.

"Passive solar energy has reached the point where anyone with good knowledge of the subject wouldn't build without it," he said. "It can save about 37 to 50 percent of a residential home's fuel bill, which translates to about 15 percent of our overall energy consumption."

For Stelson one of the greatest strengths of passive solar energy is its simplicity and the way it fits a multitude of designs. Stelson said there are other factors that will make it attractive to consumers.

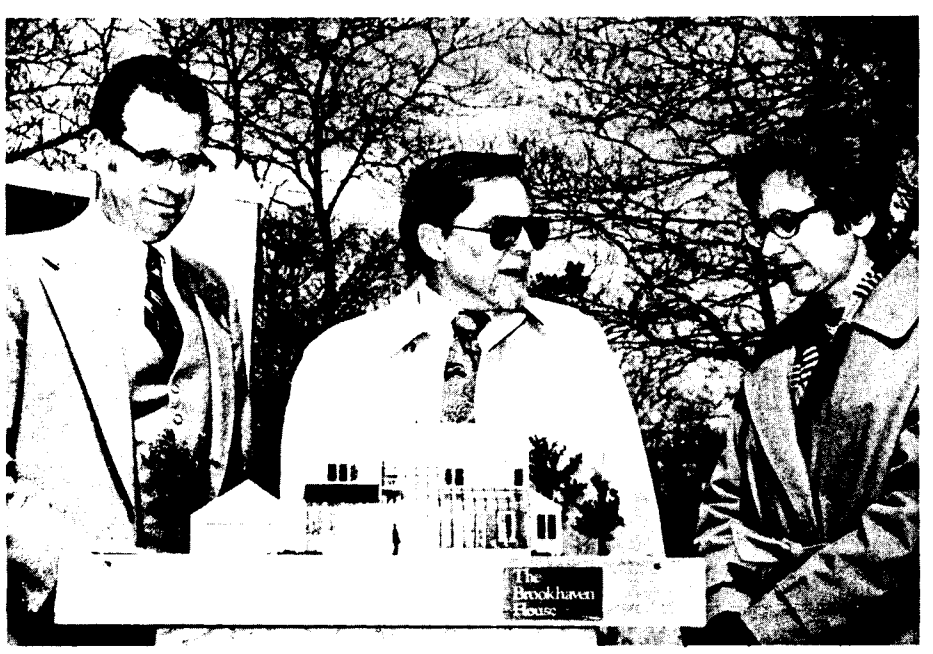
"It's inflation proof," he added, "Once a house is built the energy characteristics won't change, they'll continue to save the owner money."

Most people might be skeptical about the housing industry's willingness to get involved in a new venture at a time when the whole construction business is collapsing from sky rocketing interest and mortgage rates, but Stelson thinks those factors are working toward the industry changing.

"When things are going well, and all the homes are sold, there's no need for the industry to change," said Stelson. "But now that's not the case. I'm noticing a change – builders are looking for new ideas to sell and stimulate growth."

Leading the way toward that acceptance, and public understanding that will bring about change, are experiments like the Brookhaven House.

"There's a big information gap in the public's knowledge of passive systems," added Stelson. "They have a lack of confidence in energy resources that centers like this can help build up. I'm impressed with the mixture and diversity of what I see happening at Brookhaven."



Thomas Stelson and Maxine Savitz from DOE headquarters in Washington were in Upton last Thursday for a tour of the Lab, and to discuss plans for a new solar venture with project manager Ralph Jones (center).

Detectors In Two-Dimensions

Imagine yourself along a seashore. Two jetties stick out into the water. A wave comes in at an angle, hits one jetty, then the other. Each jetty sets up a small counter wave, and the two small waves come toward each other, meet, and create a pattern. Using a camera, you take a picture of the pattern.

This imaginary sequence is analogous to how one determines the structure of molecules and atoms, using position-sensitive particle and photon detectors.

In the sequence, the camera corresponds to a detector. The original wave behaves like a beam of particles or photons aimed at a target. (A photon is an elementary quantity of electromagnetic radiation. For example, light and X-rays are made up of photons.) The two jetties are similar to a target, which could be a molecule or an atom. And the pattern created by the small counter-waves are like diffraction patterns, which are recorded by the detector. The diffraction patterns contain information about the structure of the target.

Position-sensitive particle and photon detectors are researched and developed by Brookhaven's Instrumentation Division. According to Veljko Radeka, Head of Instrumentation, they are part of a continuing program, and detectors are being developed for biology, medicine, solid state physics and nuclear physics. With ISABELLE and the National Synchrotron Light Source (NSLS) being constructed, the program is growing to meet future needs in those areas.

Currently, division members are working mostly with gas-filled detectors. The main thrust of their effort is in developing two-dimensional position-sensitive neutron detectors for experimenters at the High Flux Beam Research Reactor and X-ray detectors for eventual use at the NSLS. In collaboration with the Physics Department, they are also developing particle detectors for high energy physics research with ISABELLE.

Joachim Fischer, Albert Heinrich Walenta and Yosuke Inagaki (visiting scientist from Japan) develop and design such detectors. Fischer provided a simplified explanation of the detection process: A beam of neutrons or X-rays hits a target. The resulting diffracted radiation then enters a gas-filled chamber, which resembles a picture frame. The radiation interacts with the gas and forms pairs of ions at the points of entry. Each pair is made up of a positive ion (an atom that has lost an electron) and a negative ion (the free electron).

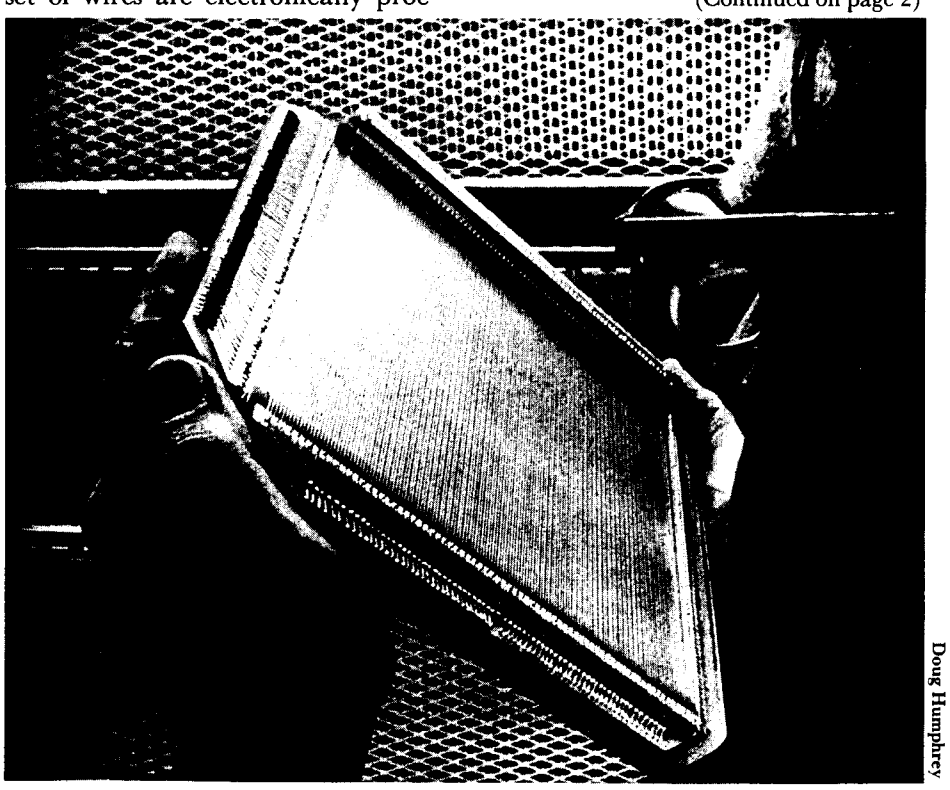
How can the location of the electrons be detected and recorded? The detector or "picture frame" is composed of several layers of wires perpendicular to each other. Between the layers, an electric field is set up. The electrons are attracted toward the positively charged wires. As they come close to the strong electric field near a wire, they gain enough energy to interact with other gas atoms, thus creating more ion pairs. By the time the electrons reach the wires, the ions have multiplied into an avalanche large enough to be detected.

The motion of the ions induces a charge in the wires closest to the avalanche. By finding which wires are involved, the location of the original radiation can be determined in two dimensions, since the layers of wires are at right angles to each other.

Robert Boie, who works with Lee Rogers and Deming Xi (visiting scientist from the People's Republic of China), explained what happens next. The signals produced on each set of wires are electronically processed, resulting in measurements, in digital form, of particle positions. This data is transferred to a computer system.

Data collection systems are designed by James Alberi, Gerd Dimmler and Frank Stubblefield. Alberi said that every detector is connected to a computer, which takes the position information in digital form, counts the number of times each position occurs, and puts it into memory. The contents of the memory are

(Continued on page 2)



Doug Humphrey

Frederick Merritt, Instrumentation Division, inspects a two-dimensional position-sensitive neutron detector.

Detectors (Cont'd)

stored on a disk or magnetic tape for later analysis by the experimenter. After analysis, the data represent patterns that contain information about the structure of a target. Most experimenters convert their data into graphical form such as contour maps or isometric drawings.

Most of the position sensitive detectors have special characteristics required by the experimenters who use them. So, with the exception of very large detectors for high energy physics, they are built by Frederick Merritt and Eugene Von Achen. These detectors frequently involve vacuum deposition technology and vacuum techniques, which are provided by a laboratory under Robert Di Nardo. Many other members of the division, however, contribute in their areas of expertise, in particular, Joseph Trebing, William L. Fleischman and Ed Zeidler.

Merritt said that detectors vary in size depending on the particles being detected. For example, he has built detectors as small as a few centimeters in length and as long as a few meters.

No matter what the size requirements, though, the Instrumentation Division researches and develops position-sensitive detectors that are applicable to all kinds of particles and energies. As Radeka says, they are pushing the frontiers in the development of these detectors.

Quotable Quotes

ALLEN, Woody – "The universe is merely a fleeting idea in God's mind – and a pretty uncomfortable thought, particularly if you've just made a down payment on a home."
(Chicago Sun-Times 31:45, April 18, '78)

EINSTEIN, Albert – "Nationalism is an infantile disease. It is the measles of mankind."
(Chicago Tribune 281:2, Section 2, Oct. 8, '78)

RIVERS, Joan – "My favorite city in the world is New York. Sure it's dirty – but like a beautiful lady smoking a cigar."
(Readers Digest 113:266, Nov. '78)

ACTON, John Emerich Edward Dalberg – "I don't hate humanity. I just don't know them personally."
(Maclean's 91:23, April 3, '78)

STEVENSON, Adlai – "A free society is one where it is safe to be unpopular."
(Human Behavior 7:68, May '78)

EDWARDS, Shelton – "The way to get somewhere in politics is to find a crowd that's going someplace and get in front of it."
(Time 112:16, Aug. 28, '78)

STARR, Kevin O – "There is no stable intellectual tradition in California except utopianism."
(Esquire 89:134, Feb. '78)

In Spite Of Difficulties. . .

Robert L. Rowley is the latest person to graduate from the Craft Apprenticeship Training Program. On March 31 he became a full-fledged experimental machinist.

Rowley has worked at BNL since July 8, 1968 and for seven years was a technician in the Physics Department. During the course of this work he did some machining and his supervisors encouraged him to apply to the apprentice program. He was a successful applicant in 1975 and, on May 5, started his training.

For him, the four-year program stretched into nearly five years. Midway into his training, he learned he had a faulty kidney and was placed on a dialysis machine, 4-5 hours a day, three days a week, for three months.

But, he said, he had faith. Then a compatible kidney was donated and he underwent a kidney transplant. Rowley has had this successfully functioning kidney for three years. In all, he lost about nine months in his training and, although he managed to keep up with some of his correspondence courses, he still had a lot of work to make up on his return.

Doug Humphrey

Bob Rowley

"His illness was a severe blow to him," says his supervisor, Ed Jackle, "and it was a very trying time. But he persevered and has achieved his goal."

Rowley grew up in Virginia but completed high school on Long Island. He now lives in Bellport with his wife and two sons.

— photo by Humphrey

Don Jesaitis in his new 12-passenger van

The Man With A Van

For some people, picking up 11 passenger every day and taking on the responsibility of getting them to BNL on time would be a burden. However, Don Jesaitis looks at it as just doing his part to help conserve gas supplies and ease the high cost of commuting for himself and his passengers.

Eleven may seem a bit patriotic, but Jesaitis can afford to be now that he owns a new Dodge van. He owns the van because of the Transvan program started by BNL. After the AUI pilot vanpooling program proved to be a success, it was decided that expansion of the van program would be through private ownership. Similar plans have been successful at more than 250 other companies. Jesaitis is the first to purchase a van through this program at BNL.

Barney McAlary, of the Fiscal Division, is the Vanpool Coordinator at BNL; he furnishes information on financing, insurance and the types of vehicles in use by other vanpools – along with recommended fare structures. The fare charged comes from all the fixed and variable costs of operating van, consequently, there is no out-of-pocket cost to the owner.

Jesaitis has purchased a 1980 12 passenger Dodge van for the program.

"The best part about this," said Jesaitis, "is that it's mine to use on the weekends or whenever I want. Under the pilot program AUI had a 100 mile radius restriction on personal use of the van, but I can hook up a trailer-hitch, or put in speakers if I want, and go when I want to go."

Jesaitis, an electrician in Plant Engineering for the past four years, feels his working knowledge of engines, and his work schedule – 8:30 to 5:00 – will be helpful in attracting passengers to his van service. While others may consider the preparation that goes along with owning a "free van" work; Jesaitis does not.

"I really love to work," said the Miller Place resident, "all my hobbies are work. I take great pride out of getting top mileage from my car at home, doing wood work such as building chairs and tables, and gardening – I built my house too, if that counts."

So far Jesaitis is enjoying his new hobby: his vanpool started April 1, and he has seven passengers to date. The route he is covering extends from the north side of Route 25A down to the Mount Sinai and Sound Beach Border. Anyone interested in vanpooling with Jesaitis can reach him at Ext. 3284, or at his home phone 928-3756. Monthly fare for the daily 38 mile round trip is $35.

NYC Train Trip

Assuming the strike will be over, the Hospitality Committee is planning a group railroad trip to the city on Wednesday, April 16. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $2.45, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than **Thursday,** April 10. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Friday preceding the scheduled trip.

The Hospitality Committee's group railroad trip to New York City on Wednesday, April 2, was canceled due to the strike. Checks for this trip will not be returned; they will be destroyed.

Teacher Wanted

The Nursery School expects to hire for the 1980/81 school year a certified teacher for a class of four-year olds, which meets two mornings a week. Those wishing to apply should do so, in writing, before April 23, to: P.O. Box 324, Upton, NY 11973.

Stony Brook Events

International Folk Dancing: Every Mon. evening, 8:30-11:00 p.m., Tabler Cafeteria. Students, senior citizens, $1; others, $2. Information: 935-9131.

Continuing Education Open House: Information on part-time graduate study and other programs offered through the CED Evening Center, April 12, 1:00-4:00 p.m., N-201 Social and Behavioral Sciences. Information: 246-5936.

Dance: Joffrey II Dancers, April 12, 8:00 p.m., Main Auditorium, Fine Arts Center. $11, $9, $7. Information: 246-5678.

Arrivals & Departures

Arrivals

Tae-Moon Ahn	Nuclear Energy
John J. Bohenek	Physics
Walter C. Breck	Physics
Tatyana Ginzburg	Nuclear Energy
Steven W. Kemp	Physics
Morris L. Shapiro	Accelerator
Sushil K. Sharma	Nuclear Energy
Marvin Shear	Accelerator
Henry Smith	Physics
Ping-chun Wang	Nuclear Energy

Departures

Trevor J. Aggus	Physics
Jean-Paul Capony	Biology
Kamil V. Ettinger	Medical
Izydor Kujawski	Plant Engineering
Kathleen M. Loverro	Physics
Giuseppe Moccia	Medical
Frank P. Pisco	Supply & Materiel
Thomas W. Weedon	Accelerator

A Visitor From The Virgin Islands

Helen Joseph, Commissioner of Consumer Affairs, U.S. Virgin Islands, spent a day at BNL last week. Accompanied by Harvey Thomas, Affirmative Action Assistant to the Director, she visited several departments and became acquainted with some of the Lab's research programs. At one point she stopped to chat with Deputy Director Warren Winsche.

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Help Cambodia

In their continuing campaign to raise funds for Cambodian relief, the Brookhaven OXFAM Committee will present a feature film and three cartoons at two showings on Saturday, April 12.

Billed as a "Kiddie Matinee" the program will include the motion picture classic "Huckleberry Finn" together with Roadrunner, Pink Panther and Chaplin shorts. Show times are at noon and at 2:45 p.m.

Tickets are $1.75 at the door, and $1.50 if purchased in advance. Call Tony Fainberg on Ext. 2920, or Chip Balzer on Ext. 2256, for tickets. All proceeds will be used in the Committee's effort to help prevent mass starvation in Cambodia.

Cooking Exchange

Y'all come and join us for some tasty Dixie vittles at the next Cooking Exchange meeting on Wednesday, April 9 at 12:30 p.m. in the Recreation Building. We'll be demonstrating foods which are favorites from the southern states in the U.S.A. such as Texas Chili, Jambalaya, apple fritters and pecan pie.

All BERA members and their families are welcome. There will be a charge of $1 per person and babysitting will be provided at 25¢ per child.

Call Ruth Fernow 928-8465 or Wendy Green 878-8952 if you have any questions.

Cafeteria Menu

Week Ending April 11, 1980

Monday, April 7		
Tomato vegetable soup	(cup)	.40
	(bowl)	.50
Cheese omelet & 1 veg.		1.30
Spaghetti & meatballs w/garlic bread		1.40
Hot Deli - Pastrami	(bread)	1.40
	(roll)	1.50
Tuesday, April 8		
French onion soup	(cup)	.40
	(bowl)	.50
Macaroni & cheese & 1 veg.		1.30
Meatloaf & hash browns		1.45
Hot Deli - Corned beef	(bread)	1.40
	(roll)	1.50
Wednesday, April 9		
Pepper pot soup w/spaetzle	(cup)	.45
	(bowl)	.55
Mexican goulash		1.40
Southern fried chicken w/corn fritter		1.45
Hot Deli - Veal pattie & peppers hero		1.35
Thursday, April 10		
Chicken gumbo	(cup)	.40
	(bowl)	.50
Pork & cabbage crisp		1.45
Eggplant parmigiana w/meat sauce		1.30
Hot Deli - Baked Virginia ham	(bread)	1.40
	(roll)	1.50
Friday, April 11		
Manhattan clam chowder	(cup)	.45
	(bowl)	.55
Sweet & sour fish & 1 veg.		1.45
Ham, rice & green bean casserole		1.40
Hot Deli - Barbequed beef	(bread)	1.45
	(roll)	1.55

Hospitality News

A morning coffee will be held Monday, April 7, from 9:30 to 11:30 a.m. in the Brookhaven Center.

All wives of Laboratory employees are welcome. Please come and bring the children. Babysitting will be provided free of charge. It is suggested that you bring along a toy or two for your child to play with.

Bicycling

Mail your application by April 23 for the 5-Boro Bike Tour, set for 7:30 a.m. May 4, rain or shine. Send $1.00 to AYH, 132 Spring St., Room 5, New York, N.Y. 10012. Join the other 9,999 riders on this once-a-year 35 mile romp through all the five boroughs of NYC, including Staten Island.

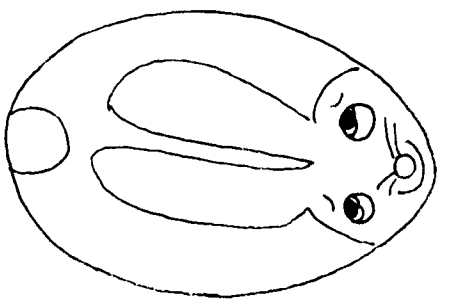
Also coming up next month is the popular two-day Tour of Eastern Suffolk, May 16-18. This event is usually oversubscribed because it is limited to the 80 or so that can be accommodated at the Chequit Inn. Details are not yet available, but last year it cost about $50 or two nights and four meals.

On April 13, the LIBC is sponsoring the Riverhead Run about 62.5 miles. Meet at 8:45 at the town parking lot between Main St. and the river, just east of route 63 in the center of town.

On April 27, the BNL Bicycle Club is running a short tour (25 miles) to Wildwood Park and return, followed by a tour of the Lab in the afternoon for those interested – this is a joint ride with outside clubs. Depart from Berkner Cafeteria parking lot at 9:30 a.m., and return by 12:30 or so for lunch.

Contact G. Morgan, Ext. 4841 for info.

Something New For Easter Brunch?



Eggs Bunnydict!

—Liz Seubert

Volleyball

Mixed League
Beginning of Final Quarter (3/24/80)

A:	High Society	3-0
	No Names	3-0
	Nuts & Bolts	2-1
	Family Affair	1-2
	Deegenerates	0-3
	Thrints	0-3
B:	Leftovers	3-0
	Nads	3-0
	Diamonds	2-1
	Monday Nite Live	1-2
	Le Mufs	0-3
	Underalls	0-3

Golf

This is a reminder that there will be an organizational meeting of the Golf League on Friday, April 4, in the Recreation Building at 5:00 p.m.

Come and meet the members, discuss league business, and enjoy refreshments.

Contact Bob Mills, Ext. 2006, for any questions.

Aviation Club

Coordinating a Jet Liner from take-off to landing involves a lot more work than most passengers think. For instance, take a flight from La Guardia Airport to Chicago's O'Hare Airport. The pilot of the airplane would probably contact the following controllers: La Guardia Ground Control, La Guardia Tower, La Guardia Departure Control – New York Air Route Traffic Control – Cleveland Center, Minneapolis Center – O'Hare Approach Control, O'Hare Tower, and O'Hare Ground Control. The departure, air route, and approach controllers depend heavily upon radar.

In the New York area, the approach and departure controllers for the three major airports, La Guardia, Kennedy, and Newark are all housed in a common room. Since the controllers' major responsibility is to control flights flying under instrument flight rules (IFR), the room is called the Common IFR Room, or Common I.

The BNL Aviation Club will host an FAA meeting on April 9 at 8:00 p.m. in Berkner Hall, at which there will be two speakers. The first will be W.C. Britton, from the FAA, who will discuss the Pilot Proficiency Program. He will be followed by a controller from the Common I who will discuss their operations. There will be time for questions.

All persons interested in aviation are invited to this meeting.

Softball

The tentative starting date of league play for the upcoming season will be May 12. The first captains' meeting will be held Wednesday, April 9 at noon in the Snyder Seminar Room of the AGS, Building 911A. Roster forms for 1980 will be available at that time. *All teams* should have a representative at this meeting.

Any new teams wishing to participate in BNL softball are urged to call the president, C. Bohnenblusch (Ext. 4758) for any pertinent information. Any employee needing assistance in finding a team should contact the vice-president, L. Musso (Ext. 7924).

Dennis Klein Rosalie Piccione

BERA Board Election Winners

Rosalie Piccione and Dennis Klein were voted winners of the 1980 BERA Board election held last week.

On May 1, they will replace outgoing Board members Marge Stoeckel and Gail Williams, and will be joining continuing members Carol Beckner, Donald David, Gerald Levine and Patricia Oster.

The Board would like to thank all those who contributed to the success of the election – the nominating committee for its selection of an admirable slate; the four candidates for accepting the nominations; and, of course, the voters for taking the time to cast their ballots.

This may be a good time to remind all on-site employees that Board members are elected by you to act as *your* BERA representatives. You are encouraged, and indeed urged, to discuss with them suggestions or complaints you may have relating to any of the BERA activities. The more voices heard, the better an organization!

Motorcycle Club

On Saturday the BNL Motorcycle Club will meet for a spring checkup of motorcycles and equipment. Nonmembers and curious bystanders are welcome. Expert mechanics and experienced unbenders and unbreakers will be available to advise on maintenance and tuneup procedures. Others will provide anecdotes and advice with minimal provocation. Bring your bikes to the cafeteria parking lot, Saturday April 5, from 10:00 a.m. until everyone runs out of anecdotes and advice.

Bowling

Gold League

High game was bowled by Kay Hunt with a 207. Other good games were Marie Susa 179/475 series, Betty Jellett 157, Brita McGonigle 153. Fran Scesny converted the 4-10, Doris Pion 6-7-10, and Betty Jellett the 5-7-9.

Pink League

Ellie Kristiansen had a great night with a 198/509 series. Ellie Adams almost had a triple patch with two 161 games. Other goods games were bowled by Marie Grahn 183, Renee Flack 178, Pat Jencius 174, Helen Keeley 169, Kit D'Ambrosio 166, Maria Apelskog 162 and Joyce Nicholsen 154.

Red League

The Freon Loaders won 11-0 over the Phoubars. R. Marlow (224) grossed 645, F. Hohmann 635. Isa Team won 11-0 over the Old Timers II. S. Kiss (213) grossed 657, M. Iarocci a 204 game. The Sandbaggers won 8-3 over the Old Timers in a great match (3116-3007). R. Meier 235/611-692 series, C. Bohnenblusch 217/218-614/686 series, J. Fontana 209/634 gross, W. Reams 219/613 gross, R. Smol 210/612 gross, R. Adams 615 gross, K. Riker 603 gross. The 76'ers (3023) won 7-4 over the Designers. J. Petro (226) grossed 653, A. Pinelli 649, J. Ferrero 639, R. Larsen (216) 626, C. Zavesky 615, J. Morris (213) 610, and E. Sperry a 203 game. The Strangers managed 3 from the Light Source.

Purple & White League

The Brown Bulls gave the Flounders a good match this week with Bob Brown rolling a 246. Jim Griffin had a 607 series with games of 202/180/225, Jere Austin rolled a 232. Other good games were bowled by Ed Sperry 225, Vito Manzella 206, Bill Lebitski 205, Nancy Erickson 211, Sharon Smith 202/181, Sharon Creveling 181/198, Betty Jellett 190, Gerri Riker 186, Gail Schuman 186, Mary Grace Meier 185. More than half the women in the league rolled games of 175 and over this week.

Green League

The Old Timers II dropped from first as Isa Team took II from them. The Blue Jays battled the Pinball Wizards and took 11. L. Jacobson had a 207. The Sparks moved into first as they dumped the Trouble Shooters for 11 with B. Kristiansen bowling a 203. The Light Source took 8 with W. Rambo bowling a 208 and the Phoubars lost 11 to the Freon Loaders.

Blue & Gold League

Dick Adams was in the spotlight rolling a 242/570 series. Dick Murgatroyd also did well with a 211/554 series. Henry Shute rolled a 198/192 for a 736 series. Tom Romano hit a nice 208/500 series. The women did well with Betty Roche bowling a 164/162, Marijane Gillette 160, Sue Perri 159 and Ellie Adams 158. Mary Scheidet converted the 3-7-10.

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.

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

1297. CONTRACTS SPECIALIST - BBA or equivalent capabilities. Requires substantial experience in all phases of procurement with emphasis on contract preparation and administration. Ability to draft RFP's and knowledge of federal procurement regulations is essential. Will assist Contracts Administrator for the ISABELLE Project. Contracts and Procurement Division.

1298. TECHNICAL POSITION (electronic) - AAS degree or equivalent in electronic technology with solid background in analog and digital design and development work. Requires experience with troubleshooting and maintaining electronic equipment. Knowledge of drafting, mechanical design, and programming (BASIC) is desirable. Will participate in ongoing and developmental projects related to examining structures of biological molecules. Biology Department.

1299. TECHNICAL POSITION - Requires an AAS or equivalent in life sciences with mechanical aptitude. Ability to handle small animals, operate experimental equipment and perform routine wet chemistry procedures is necessary. Will primarily be responsible for operating all inhalation chambers for inhalation toxicology project and will assist with diverse laboratory routines. Medical Department.

1300. TECHNICAL POSITION (mechanical) - AAS degree or equivalent in mechanical technology with ability to work with machine and hand tools for mechanical properties testing. Will perform fatigue and creep testing for high level waste management group. Department of Nuclear Energy.

1301. DEVELOPMENT ENGINEER (two positions) - BSME or equivalent with a background in general machine design and high precision manufacturing processes. Knowledge of vacuum technology and computer programming desirable. Accelerator Department/ISABELLE Project.

SR. TECHNICIAN (electronic) - Requires AAS degree or equivalent with a good background in pulse circuits, analog and digital controls and high voltage and/or high current power supplies. Should be skilled in troubleshooting of power supplies and associated controls. Shift work required. Accelerator Department.

Autos & Auto Supplies

TIRES - new & used. F. Usack, Ext. 4798 lunchtime.

74 DODGE SWINGER - a/t, p/s, r/h, FM radio/tape deck, new brakes, perf cond, inside & out, 1 owner. 744-2332.

72 VW SUPER BUG - recent valve job, good mpg. $1500. 472-2457.

79 F-250 FORD - 4 spd, 4x4, 351-V8, AM/FM-8 trk, 13,000 mi. $6800. 273-3965.

65 FORD MUSTANG - 4 spd, 289 ci. $600. Ext. 2480, 924-6744 after 5:30.

77 CAMARO - ps/pb, p/w, AM/FM stereo, excel inside & out. Pat, Ext. 4173, 878-4942.

RIMS - (4) 14" for Chrysler product. $10 ea. Steve, 4043.

69 VW SQUAREBACK - new clutch/brake/caliper/batt/radials, running excel, must sell. Asking $1100. Ext. 4410, 924-0581.

74 BUICK ELECTRA - excel cond, AM/FM stereo, many extras. $1600 or best offer. 286-0372.

79 TOYOTA COROLLA - 4 cyl, AM/FM cassette, low mi, good cond. $4500. Ricky, Ext. 4113, 585-3744.

74 BUICK CONV - a/t, a/c, ps/pb, p/w, AM/FM, rear defrost. Asking $2555. Ext. 4113, 289-0753.

68 CHRYSLER NEWPORT - good cond. Asking $500. Ext. 7107/3031.

76 DODGE MINI-MOTOR HOME - 22', low mi, AMF Skamper, sleeps 4, self-cont, AM/FM/CB, full bath, motorized antenna. $9800. Jim, Ext. 4040, 289-0876.

78 CHEVY NOVA - a/c, a/t, ps/pb, 23,000 mi, stereo, mint cond. Asking $4500. JU8-1713.

SHELLRIDE TIRE - 8.25x14, 4 ply, never used. 473-4471.

74 DODGE CHARGER - V8, good cond. 928-8379 eves.

NEW HEAD - compl 350 Chevy 1973. $25. Ext. 3082, 286-1886.

72 IMPALA - 4 dr hdtp, ps/pb, a/c, very good cond. $925. 289-0413.

75 COUGAR XR-7 - ps/pb, a/c, AM/FM-8 trk, very good cond. $1700. Ext. 4726, 744-5056.

75 HONDA - 750cc, excel cond, extra chrome, custom seat, trunk. $1495. 399-4761.

74 GRAN TORINO- 2 dr, ps/pb, a/c, reg gas, 78,000 mi, extras. Ext. 2546, 744-4047.

78 YAMAHA YZ-250E - mint cond, never raced, hardly used. $875. 928-7769 after 5.

74 FORD F-250 - 4 wh 0, rebuilt motor, new tires & exhaust. $4000. 698-3030 after 6.

73 DODGE MOTOR HOME - 20', sleeps 6, dual air, 47 gal tank. 472-1714.

73 PINTO WGN - Squire, 4 cyl, a/t, high mi. $500. Ext. 4207, 286-2251.

75 SUZUKI - 185cc street bike. $450. Ray, Ext. 7509, 924-0569.

78 YAMAHA - DT125 Enduro, 80 mpg, 650 mi, excel cond. $650. Steve, 929-4925.

78 HORIZON - 4 dr, std, hatchback, top cond. $3800. L. Green, Ext. 2944, 473-2764.

70 DODGE VAN - finished int w/bed, roof vents, clean, runs well. $1000. 277-2671 after 6.

69 BUICK LE SABRE - a/c, ps/pb, 2 new tires. $425. John, Ext. 2461.

SUBARU REPAIR MANUALS - wheels & tires, excel cond. 281-5532.

74 TOYOTA P/U - good cond, average 25 mpg reg gas, AM/FM, w/w; 70 Duster, very good cond, 21 mpg hwy, 18 mpg local, radio, w/w. John, 727-7741.

MOTORCYCLE FAIRING - off 650 Yamaha, good cond. Ext. 3120.

69 FORD PICKUP - body shot, good eng, 4 spd trans, rubber, radiator, batt, new reg & alt. $200. Ext. 7500.

76 FORD E351 - new eng, 14' box, ps/pb, new wheels. $4000. R. Glucksman, 764-7453 after 6.

78 CHEVY BLAZER - Cheyenne, 2500 mi, a/c, pwr everything, garaged, must be seen. 286-0744 after 6:30.

78 KAW KZ700 - 1100 mi, 62 mpg, crash-bar, footpegs, sissy bar, lug rack, showrm cond. $1550. Ed, 265-3731.

72 CHEVY CAMARO - 350-V8, a/c, green/blk vinyl, excel cond. $1900. Walter, Ext. 4731, 981-2431.

77 KZ-400 - crash & sissy bars, lug rack, blue 2 helmets, very well maintained. $1250. Bill, Ext. 7611.

75 VEGA - good, 56,000 mi, manual trans, new clutch/shocks. $850. Sandro, Ext. 4382, Ext. 3111 eves.

77 SUZUKI RMBO - S&W shocks, air forks, extras, excel. $425. Toby, 929-8725.

76 CHEVY SUBURBAN C20 - trailering special, a/c, a/t, p/s, reg gas, excel cond. $5800. Ext. 4406.

79 YAMAHA 650 - Special II, 500 mi, 50 mpg, windshield, carry case, excel. $2095. John, Ext. 4255, 929-4450.

75 HONDA MOTORCYCLE - 175cc, excel mech cond. $395. Bill, Ext. 3399, 281-0551.

72 VOLVO - 144E, 4 cyl, fuel inj, a/t, AM/FM, new tires & muff, good all around cond. $1350. 585-7244.

14" F78 TIRES - (4) & 2 Chevy wheels. $20. Frank, Ext. 2350, 475-8187.

75 PONTIAC FIREBIRD - 350 eng, 2 bbl carb, r/h, ps/pb, a/c, AM/FM-8 trk, brown/brown, excel. Robert, 475-2058.

75 HONDA CIVIC CC - excel cond. $2000. Joe, Ext. 2898, 744-4086.

HONDA 360CL - fairing, crash-sissy bars, rack, new tire, 50 mpg, excel. $875. Levine, Ext. 4212, 878-1124.

77 PINTO WGN - good trans, V6, 40K mi. $2500. 363-6845.

72 CHEVY STA WGN - ps/pb, good cond, new brakes/batt/tires (2). Price negotiable. Ed, Ext. 7949, Ext. 3200 after 6.

Boats & Marine Supplies

1978 MARQUIS - 19' Bow Rider, V-hull, 85 hp Johnson, full canvas, gal trailer, elec pwr wench, winter cover, compass, extras, excel cond. 981-5993 after 6.

ANCHOR - Danforth, galv, Mod 13S, excel cond. Cost $60, sell $30. Ext. 3532.

20' O'DAY - sailboat 1978, shallow draft, 3 sail + extras, sailed 1 season. $6295. 289-0925.

20' SAILBOAT - Flying Dutchman, molded plywood, 4 sails, extras, needs some work. Best offer. Ken, Ext. 2008, 928-5875 eves.

19' BOWRIDER - Volvo Penta I/O fwc eng, galv trailer, many extras. 286-0626.

Miscellaneous

TRAVEL TRAILER - 19½' Norris, fully self-cont, sleeps 8, many extras. $2200. Ext. 2309, 473-9180 after 5.

BIKE - ladies' 10 spd Mossberg, 26", good cond, $80; ladies' figure skates, size 5N, never used, $10. P. Oster, Ext. 4763.

FRANKLIN STOVE - w/screen, grate & pipe; industrial type heater, 10KW, 3 phase, w/fused disconnect box. J. Skora, Ext. 2819, 744-9677.

WINDOWS - white DH insul w/scr, new, (1) 3'x3', $65; (2) 3'x4', $75 ea. 924-6582.

IRONING BOARD - new, $7; metal TV cart, $5. 924-7025.

JUICER - Majestic veg/fruit, $90; wig, blond frosted/perm w/stand, $20; both never used. Ext. 2065, 981-1327.

QUEEN SIZE MATTRESS - w/vibrator, like new. Asking $75. Linda, Ext. 2969, 289-5060.

CRIB - w/matt & bumpers, $15; Polaroid 210 camera w/flash attachment, $20. Ext. 2979.

OIL BURNER - 7 yrs old, great cond. $35. Joe, Ext. 2005, 929-8321 after 5.

WOOD LATHE - like new. $50. Walt, Ext. 4627.

DINING RM - light wood table, 4 chairs, china closet, server. Asking $100. 472-1409.

TURNTABLE - Pioneer direct drive, semi-auto, spd adjust, 2 cart, mint cond. $100. 744-5009 after 4.

LAWNMOWER - Sears Craftsman 20" rotary w/bag attachment, 3 yrs old. $60. Mike, Ext. 7941.

STOVE - air tight Gibraltar #3, almost new, w/glass front. Cost $500, now $350 cash & carry. 588-0805.

STRAWBERRY PLANTS - top quality Raritan. 15¢/plant, 25 plants min, Center Moriches. Chris, 878-0621.

NATIONAL GEOGRAPHIC MAGAZINES - 727-5912.

VIP MEMBERSHIP - $300 for life, $24 anual fee. Al, 588-4703, 581-2876 after 5.

PIANO - Baldwin, 1 yr old, walnut. 475-0068.

FIREPLACE SCREEN - universal, clamps on lintel bar. $5. Bruce, Ext. 4022.

LENS - 35mm Soligor for Canon FT, TL, nearly new. $35. Ext. 3086, 286-8370 after 6.

LAWN SPREADER - 24" Scotts, $12; lawn sweeper, 25" Sears, $12 or 2/$20; evergreens, 24"–46", you dig, 2/$7. 727-1617.

WALL CLOCK - Verichron pendulum, batt operated, matching wall scones w/candles, excel cond. $40. I. Merritt, 589-5126.

FREE - to a loving home, 2 yr old golden-brown cocker spaniel, beautiful, loving, well trained, AKC reg. Ext. 3701.

REFRIG/FREEZER - United s/s, avocado, excel cond. $225. Ext. 3341/4188, 363-5170 after 6.

HAND TOOLS - some old, some almost new, all good, I'll send you a list. Ext. 4087.

STOCKADE FENCING - used, 6' high, 31 sections, 7' long ea, fair cond. $7/section. Tom, Ext. 4084.

R/C MODEL KIT - "Dave Platt" Spitfire, 65" span, standoff scale, for .40–.60 engines, $74 new, sell $50 compl; R/C model "Lancer" 54", set up for 4 ch, HP .40 engines. Kevin, Ext. 4084.

ELEC FRYPAN - w/broiler cover, $10; wood folding boat or patio chairs, 3/$35, $12 ea. Jack, Ext. 4087.

STUDENT DESKS - (2), $12 ea; dog grooming supplies, leashes, wholesale; vacuum cleaner. Ext. 7772.

SKATES - never used, blk shoe roller skates, Street King, size 2, $7; ice skates, $3. 928-7993.

FRETTED CLAVICHORD - w/carrying case & stand. Ext. 3493.

PARSIFAL AT THE MET - (2) tickets, balcony, April 18. $7 ea. Gary, 929-3594 eves.

CUSTOM FISH TANK - 65 gal, all access plus fish. $125. 744-5714.

GE TOAST-R-OVEN - new; heater; iron; hamburger maker; roller skates; skateboard; toys. Ext. 3027.

MATTRESS/BOX SPRING SET - firm, like new, $60; child's tricycle, $10; crib matt, $10. Ext. 4695, 744-1917.

BOOKCASE HEADBOARD - w/2 drawers, for king size bed, pecan wood, colonial, good cond. $35. 473-5585.

FURNACE - oil hot air, gun type, sm. $50. Paul, 727-4859.

KITCHEN SET - Spanish Medit, 60" oval w/leaf & 6 wrought iron chairs, cushioned. 289-1085 after 5.

MINI BIKES - 3 & 3½ hp, 3.50x10 tires, ask about extra features; Delta tire H78-14 tubeless w/w on Dodge rim. 744-1429.

BUNNY RABBITS - $5 ea. Tony, 281-0350.

POOL - 24'x4' Medalian, all access incl, one time price. $250, you dismantle. Ext. 2043, 472-3985.

BIKES - 2 girl's, 1 boy's; formica table & 6 chairs; light wood end tables; 3 globe din rm ceiling lamp. Kelly, 744-3069.

10 SPD BIKE - Vista Esquire, 27" wheels, 23" frame, Sun Tour derailleurs, ready to ride. $60. Tom, Ext. 7115.

19" RCA COLOR TV - plays well. $175. Alan, Ext. 2252.

SCANNERS - 8 ch Regency Lo Band, 4 ch Radio Shack Hi/Lo. $50 ea. Hank, 727-4404 days, 727-0907 nights.

SOFA - 2 yr old wine colored velvet, 90", w/bolsters, very good cond. $275. Ext. 4030, 499-2096.

WOOD STOVE - Huntsman, brick lined, efficiency, wt about 400 lbs. $275. Jim, Ext. 4959.

RECLINER - green, $65; men's sport jackets, size 40 & 42, $10 ea. 744-9822.

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

PORT JEFFERSON - Harbor Hills, 3-4 bedrm ranch, possible mother/daughter, wooded ⅓ + acre, fp, dead end st, immed occupancy. Reduced to $69,000. Ext. 4504, 473-1523, 928-0483.

PATCHOGUE NORTH - 3 bedrm hi ranch, eik, lg L/R, lg panelled fam rm, excel cond, assume 6% mtg, add'l insulation. High 30's. Ext. 4333.

CORAM - $10,000 assumes 7% mtg, $1569 taxes, gas heat, well insulated, 15 min to Lab, 3 bedrm ranch, 4/10 acre fenced, patio, att gar, all appl, carpeting, city water & sewers. 331-2234.

MASTIC BEACH - 4 bedrms, L/R w/Franklin, D/R, low taxes, 160x100 prop, ¼ bsmt, shed, encl porch, Farmer's 8% mtg, near water, stores & schools. $28,000. 281-0360.

PORT JEFFERSON STATION - 4 bedrm ranch, 1½ baths, D/R, lg kit, carpeting, paneling, gar, ½ bsmt fin, pool, fenced, gas heat 5 appl. 473-1120 eves.

BROOKHAVEN HAMLET - 3 bedrm cedar-shake ranch excel construction, low oil use, ½ acre, bsmt, a/c w/w, 8½% mtg. $53,000. 286-3934.

MEDFORD - custom ranch, landscaped acre, 7 rms, fin bsmt, in-ground pool & sprinkler, 15 min to Lab. $100,000 value, sacrifice $64,500, owner may hold mtg. 475-6707 after 6.

ISLIP TERRACE - legal mother/daughter ranch, 2 bedrm apt-1 bedrm apt side by side, fenced, fp, full bsmt, 8-car prof parking, assume 7¼% mtg, desirable location, extras. $43,000. Ext. 2077, 581-3913 eves.

For Rent

RIDGE - lovely country house, 4 bedrms, freshly painted & renovated, brand new furnace, insulated, 4 mi from Lab, lg yard, garden, woods, avail May 1. $300/mo + util. 924-8125 eves & weekends.

RONKONKOMA - 2 bedrm ranch, lg eik, D/R, L/R, fam rm w/stove, w/w. $325 + util, month-month lease. Ext. 2964, 588-1464.

MANORVILLE - 1 bedrm apt w/view, a/c, dishwasher, fp, 2 yr lease, free heat. $330/mo + security, w/club membership free. Pat, Ext. 2360, 878-8935.

Wanted

APT TO RENT - Wading River/Shoreham area, for all yr. Frank, Ext. 3898.

PICKUP TRUCK - cheap, in running cond. 543-6057 after 5:30.

SNOWMOBILES - in good cond. Ext. 4489.

HOUSE SITTER - from Apr 16 to July 1, Shoreham. Ext. 3462, 744-8449.

HOUSE - mother/daughter 3 bedrm main house, apt attached or sep. 286-8166 after 5 & weekends.

RIDE - Medford student needs ride one-way Fridays at 5 to Zeidler Motors, Rt 112, Medford. Ext. 3336.

MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.

GARDEN PLOT - apt dweller seeks to rent this summer, Ridge/Middle Island area. Sandy, 924-9219.

BICYCLE - single or 3 spd, 26". J. Adams, Ext. 4994.

HOUSE TO RENT - mother/daughter, 3 bedrm main house. Lev, Ext. 2100.

SM HOUSE - 2-3 bedrms, near Mt Sinai or Miller Place area, near harbor. 929-4967 after 6.

TRAINS - Lionel, any "O" gauge or "027" gauge cars, track & equip. Frank, Ext. 3120.

SM POP-UP CAMPER - Ext. 4543, 363-2522 after 6.

RELIABLE BABYSITTER - 2-3 afternoons/wk, Middle Island Area. 924-7989.

APARTMENT TO RENT - 1 bedrm, Rocky Point, Sound Beach, Miller Place area. Donna, Ext. 2907. 751-6383, eves.

Car Pools

PATCHOGUE - from Patchogue via E. Patchogue/Bellport, on-time, have opening for paying rider. Alyce, Ext. 2902.

PLAINVIEW AREA - June 1. Dan, Ext. 3289.

BELLPORT - looking for 1 person to join existing car pool, 8:15-5:15. Ext. 3381/4993.

Lost & Found

LOST - will person knowing whereabouts of package addressed to A. Losi, please call Ext. 2505 (Bldg. 701).

LOST - gold filigree cross, outside Bldg 130, sentimental value. Christina, Ext. 3919, 929-4310.

Services

AUTO REFINISHING - all areas of work performed, discount rates for sm car refinishing. Ext. 2546, 744-4047.

LAWN THATCHING - removes all dead grass for a beautiful green lawn. 5000 sq ft for only $50. Tom, Ext. 2011, 325-1033.

FIREWOOD - seasoned oak, 4'x8'x16-18". $50. 924-3236.

EXPERT TUTORING - Math, German, French, elem subjects, certified teacher, my home. $10/hr. 941-4328.

CHIMNEYS CLEANED - Snoopy Soot Service. 289-0885.

BELLY DANCING - lessons by professional teacher, Hauppauge area. $3.50/hr. Jenni, 265-1840.

CAR WAXING - wash & wax. $20, my home or yours. Steve, Ext. 4297, 758-4890 after 6.

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

ANTIQUE CARS FOR HIRE - specializing in weddings, proms. Mike, 281-3460.

ROTOTILLING - 1000 sq ft/$15. Dave, Ext. 7517, 288-3011.

BABYSITTING - reliable teenager, eves & weekends. 929-4068.

TAXES - prepared by tax consultant, your home or mine, reasonable. John, 732-2472.

ASPHALT PAVING & SEALING - Bob, 475-4382.

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