



BROOKHAVEN BULLETIN

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AEC Chief Visits Applied Math



Milton E. Rose (right), Chief of the Mathematics and Computer Branch in the AEC's Division of Research, confers with Yoshio Shimamoto, Chairman of BNL's Applied Mathematics Department. Mr. Rose recently visited Applied Math to review a research program on computers. While here, he attended a series of ten talks on various aspects of the program. Rose was the first head of the Applied Mathematics Division before it became a department.

Radioactivity In Man Decreasing Since 1963

A study conducted by a group of researchers in the Brookhaven Medical Research Center found that the level of radioactive contamination in man has decreased since the atmospheric test ban treaty between the United States and the U.S.S.R. in 1963.

They observed the amount of Cesium-137 present in ten BNL employees once a month for 12 years from 1960 through 1971. None of these individuals had significant occupational contact with radioactivity. In addition, 900 other employees were counted at various times during the 12 year period. Ages at the start of the study ranged from 25 to 45 years.

Cesium-137 is one of the fallout products of a nuclear weapon explosion, and it has a half-life of 30 years. It enters the body easily through food and drink, and an excess represents a potential hazard to man. Cesium-137 localizes mainly in the muscle mass and gets there by following a pathway similar to that of potassium which exists naturally in the body.

Measurements were made using a whole body counter. Prior to 1967 a chair type counter was used, in which the patient sat in a semi-lounging position. The detector, or scanner, was fixed over the body. Since 1967, a whole body counter that is considered to be unique in the world has been used. It consists of a total of 54 stationary very sensitive sodium iodide detectors (27 above and 27 below the person) which provides whole body data on both the quantity and distribution of Cesium-137 almost instantly. Information from the detectors is fed directly to a computer which then provides the investigator with a printout containing both qualitative and quantitative data on each individual.

In 1961 the average value of Cesium-137 in the sample population (seven males and three females) was 37 pCi/g (pico curies per gram of body weight). A pico curie is

one trillionth of one curie. After the weapons testing stopped near the end of 1959, the body levels of Cesium-137 had dropped until tests began again in 1961. In December of 1962 it rose to 75 pCi/g, and in March of 1963 it reached 110 pCi/g. The average for the entire year of 1963 was 80 pCi/g.

Toward the end of 1964, following the test ban treaty and resultant decrease of radioactive contamination, the levels of Cesium-137 again declined. By 1969, the average body level had dropped to 18-20 pCi/g where it essentially remained through 1970 and 1971.

The conclusions of the study are based on a relatively small population and should not be extrapolated to the world population at large. However, the results of the ten employees counted every month compare closely with the other 900 persons counted at irregular intervals. Cesium-137 levels in females averaged 20 percent less than in males.

The study team was headed by Senior Scientist S.H. Cohn, Ph.D., who was assisted by Medical Associates K.K. Shukla and C.S. Dombrowski.

World of BNL

This week the World of BNL will explore the whole body counter used in the Medical Research Center.

The World of BNL is now broadcast Sundays over four stations instead of two. The times and stations are as follows: at 8:15 a.m. over WBLI-FM (106.1), Patchogue; WRCM-FM (103.9), Riverhead; WHRF-AM (1570), Riverhead; and at 11:15 p.m. over WGLI-AM (1290), Babylon.

FAS To Meet

The Brookhaven Chapter of the Federation of American Scientists will meet in Room "A" of the Cafeteria at lunchtime on Thursday, August 3rd.

Lungmobiles In The Future?

Diseases of the small airways of the lung, such as emphysema, asthma or chronic bronchitis, are difficult to diagnose at a stage when treatment could be effective. By the time chronic airway obstruction is detected by the usual lung function measurements, the diseases are generally incurable.

Five years ago, researchers at McGill University in Canada first observed closure of the small airways using radioactive xenon-133 tracer. Powell Richards, Louis Stang, and Herbert Susskind, of Brookhaven's Department of Applied Science (DAS), proposed last year that Brookhaven develop this technique for the mass screening of large populations for the early detection of obstructive lung diseases. As a result, the feasibility of using an inert stable gas tracer, helium, suggested by Stang, was first demonstrated at Brookhaven last year.

Only the technique under development here and at several other centers, and another that is not as sensitive, show any promise when used in routine lung function tests or for widespread screening.

The Brookhaven method is rapid and simple, and the use of inert helium makes it more widely applicable than a radioactive tracer. Helium is believed to be more sensitive than other gases and it has a lower density, more rapid diffusion rate and a lower blood solubility than xenon.

Helium (one milliliter for males, one-half milliliter for females) is inhaled at residual volume by the subject being tested. Residual volume is the volume of air remaining in the lungs after a person has forcefully exhaled as much air as possible. After inhaling the helium, followed by fresh air, to the maximum lung volume, he exhales to residual volume again while the helium concentration is measured continuously at the mouth. This is done by allowing a small sidestream of exhaled air to pass through a probe into a helium mass spectrometer leak detector for the duration of the exhalation. The lung volume is measured with a spirometer, and the helium concentration is plotted continuously as a function of ex-

haled lung volume, on an x-y recorder.

At one point on the straight part of the helium concentration-volume curve, known as the "alveolar plateau," an upward inflection can be seen which indicates airway closure. At this time, the small bronchioles close and trap air in the alveoli (tiny air sacs in the lungs) as a result of an increased external pressure exerted against them during forced exhalation. The volume at which airway closure occurs during exhalation appears to be a function of age, respiratory disease, and a history of cigarette smoking. Airway closure was found to occur earlier in older individuals and in individuals with diseased lungs, or who smoke.

Powell Richards and Herbert Susskind of the Medical Radionuclide Development Group in DAS are working closely with Dr.



Herbert Susskind and Sharon Woodson evaluate results from an x-y recorder which plots helium concentration in exhaled air as a function of exhaled lung volume.

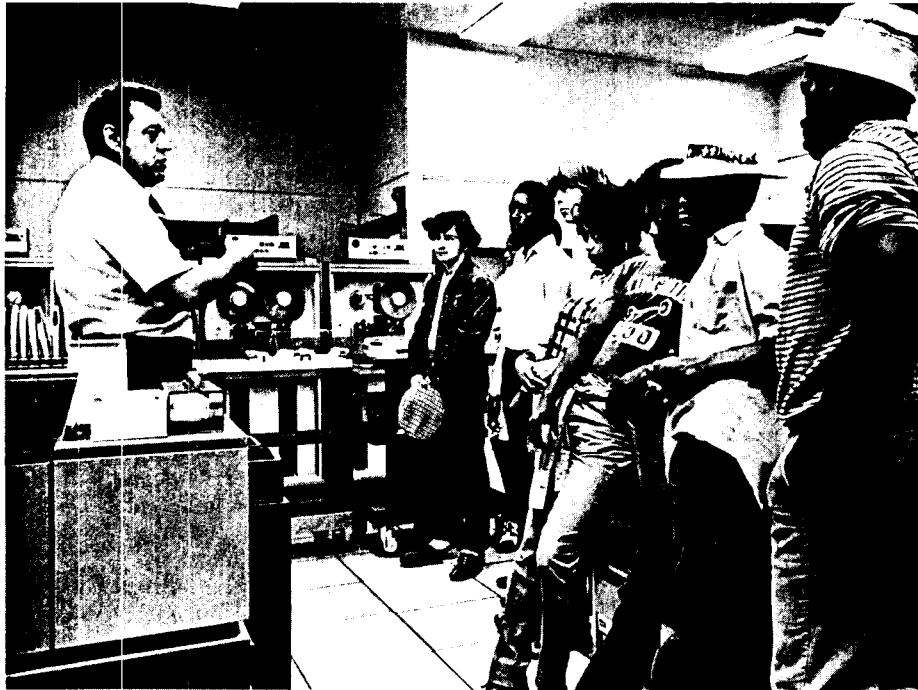
Harold Atkins of the Nuclear Medicine Group of the Medical Department, on the development of this technique at Brookhaven. They are collaborating with doctors at the Downstate Medical Center in Brooklyn. The initial development work and clinical testing will be done at Brookhaven, and, once the technique is successfully de-

(Continued on Page 2)



Edward Platia (left) supervises as fellow student Harold Bronheim inhales and exhales into a spirometer, which measures lung volume. Harold wears a nose clip to ensure that he breathes only through his mouth.

Youth-On-Campus Students Tour Lab



Walter Kameika (left) of Data Processing talks to students from area high schools who are here this summer in the 1972 Youth-On-Campus Program. Tours of different divisions on site that could offer employment to high school graduates have been scheduled for them throughout the summer. Many of the students plan to seek employment after high school rather than go to college.



A tour of the Computer Center is given to the YOC students by Ed McFadden (right) of the Applied Mathematics Department.

Lungmobiles (continued)

veloped, the large-scale testing will be done by the Downstate Medical Center.

Susskind hopes that a manufacturing company will become interested in the project and design a compact three-part unit for the large-scale testing of the public. The unit would consist of a spirometer to measure lung volume, a mass spectrometer to measure helium concentration, and a small computer to store data and provide immediate evaluation of the results. With such a unit, Susskind says it will be possible to go into various neighborhoods for large-scale testing. Like the mobile X-ray trailers used by the Tuberculosis Association, we may soon see lungmobiles in our neighborhoods. In this way populations can be screened for early signs of obstructive lung disease and preventive measures can be taken.

As part of their summer project, two summer students are working with Susskind on preliminary testing at the Lab. They hope to screen all 80 summer students since their age group is not one appreciably represented here except during the summer. They will also test BNL employees of varying ages, heights, weights and respiratory histories. Some of the patients with lung diseases in the hospital here will also be tested.

Sharon Woodson and Edward Platia are both working in the Department of Applied Science this summer under Stang and Susskind. Sharon is from Riverhead, New York, and is majoring in chemistry at Dickenson College in Pennsylvania. Ed is a graduate of Lafayette College in chemical engineering. He is from Easton, Pennsylvania and will be going to Johns Hopkins Medical School in the fall.

Basketball Tournament

The summer players have asked the basketball officers to organize a special short term tournament for them. If enough sign up, there will be a double elimination tournament held (2 losses and out).

This will not be a BERA supported tournament - it is a "special" to be supported by the participants. The entry fees have been set to pay the cost of first and second place awards. Volunteer officials will be recruited.

The \$15 team entry fee must accompany your roster. Deadline is August 9. Send or give your entry to any of the league officers: Ed Taylor Ext. 4126, Bob Barone Ext. 4174, Lou Snead Ext. 2544 or George Latham Ext. 3379.

Only Roster Restrictions 1. Must be employee or student. 2. Maximum 7 men.

Sweet Love, Bitter (It Won't Rub Off, Baby!)

The next feature in the BERA Summer Film Festival is a 92-minute-long film starring Dick Gregory, Robert Hook, Don Murray, and Diane Varsi.

Sweet Love, Bitter (It Won't Rub Off, Baby!) will be shown Friday, August 4 at 8:30 p.m. in Berkner Hall. Racial tensions and drug addiction are the subjects of this powerful film, in which Dick Gregory made his acting debut.

Admission to air-conditioned Berkner Hall is \$1.00 for adults, and half that for the under-eighteen set. The show will start promptly at 8:30, and there is always plenty of safe parking.

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Arrivals & Departures

Arrivals

Azizullah N. Ansari	Medical
John E. Barry	Biology
Jerald L. Holm	Physics
Earl Lazarus	Physics
Edward V. Ohanian	Medical
Daniel N. Slatkin	Medical
Elaine Taylor	Accelerator
Lisa H. Werner	Medical

Departures

Robert A. DeGregorio	Accelerator
Robert Frederick	P.E.P.
Harold R. Gardner	S & M
Dorothy Jesaitis	Medical
San San Lin	Medical
Dennis G. Perry	Chemistry
Rose Marie Reichhold	Applied Math.

Record Hop

Thursdays — 8:30 p.m.
Recreation Building
Free Admission
Soda - Beer Available

Semester Student Returns



Gregory Fields (left) prepares to irradiate *Tradescantia* flowers with X-rays in the Radiological Research Facility (RARAF) located in the old Cosmotron building. He was a Brookhaven Semester student from February to June, working with Alan Underbrink (right) of Biology. He is continuing with Underbrink this summer in the Summer Student Program. Doing genetic studies with *Tradescantia* flowers is one of the projects in which he is involved. The purpose of the project is to determine the mutation frequency of the flowers when they are irradiated in a nitrogen environment. The normally blue stamen hairs of this flower give rise to pink mutant hairs after irradiation. It was found that the mutation frequency is lower when they are irradiated in the presence of nitrogen gas than in the presence of fresh air. Greg is a senior at Grambling College in Louisiana and is double-majoring in Biology and Chemistry.

Cafeteria Menu

Week Ending August 10, 1972

Friday, August 4	
Manhattan Clam Chowder	
Stuffed Flounder & French Fries	.95
Poached Filet Sole & 1 Veg.	.95
Chili Con Carne on Rice	.85
Monday, August 7	
Puree of Mongole Soup	
Spanish Omelet & 1 Veg.	.80
Baked Macaroni au Gratin w/Bacon Strips & 1 Veg.	.85
Boiled Beef w/Beetrelish & 1 Veg.	.85
Tuesday, August 8	
Vegetable Soup	
Manicotti w/Meat Sauce & 1 Veg.	.85
Beef Stew Casserole	.90
Pork Chow Mein on Rice w/Crisp Noodles	.85
Wednesday, August 9	
Turkey Noodle Soup	
Corned Beef & Cabbage w/Boiled Potato	.95
Spaghetti w/Italian Sausage & Peppers	.90
Grilled Chopped Beefsteak	.80
Thursday, August 10	
Onion Soup w/CROUTONS	
Veal Parmigiana w/1 Veg.	.90
Braised Chicken Leg & 1 Veg.	.85
Baked Stuffed Green Peppers & 1 Veg.	.85

Selected Reading

Library J. 97, July 1972	
What will a foundation look for when you submit a grant proposal? R. A. Mayer. 2348-50	
New Scientist 55, July 20, 1972	
The psychology of chess. P. Wason. 134+	
Science 177, July 21, 1972	
Science and trans-science. (Editorial) A.M. Weinberg. 211	
Ehrlich versus Commoner: An environmental fallout. C. Holden. 345-7	
Ray nominated to AEC. R. Gillette. 246	

Hospitality News

The next Hospitality Committee morning coffee will be on Tuesday, August 8, from 10 a.m. to noon, in the Recreation Building in the apartment area.

The Committee cordially invites you to join them in welcoming our summer visitors and hopes to see you there. Everyone is welcome - bring the children.

July Retiree



Harold S. Gardner, a Stores Clerk in the Supply and Materiel Division who started work at BNL on May 21, 1956, retired on July 28.

BERA Golf

The second BGA Tournament was held on July 20th on the Dogwood Course at the Middle Island Country Club. The weather was fine and 25 golfers entered the tournament. The big winner was John Dioguardo, who won low gross with a 42 and tied for low net. John dropped 15 strokes from his previous score for the big win. Mike Iarocci placed second for low gross, one stroke behind. Howard Gittleston is running away with the sandbagger of the year award as he tied for low net with a 35, the same score as he tied for low net in the first tournament. Howard was also leading in the longest drive contest before the grounds keeper moved the marker. Since most of the field still had not played, this event had to be cancelled. Dick Hildenbrand won the closest to the pin contest.

BGA league play is moving right along with most teams having only 4 or 5 matches left to play. The leaders and chief contenders of the 4 divisions look like this:

Red Division		
1. Conway and Wirszyla	67.5%	
2. Korhut and Mayeski	57.1%	
Blue Division		
1. Blake and Chen	54.0%	
2. Weiss and Petro	50.3%	
3. Beckwith and Taylor	48.8%	
Green Division		
1. Baltz and Gittleston	69.1%	
2. Lawrence and Murgatroyd	61.8%	
3. Caunter and T. Iarocci	59.4%	
Gold Division		
1. Flood and Hildenbrand	59.2%	
2. Feindt and Scharpeger	53.5%	

The Individual League has some very exciting matches scheduled for the final weeks. The leaders at this time look like this:

Red Division	Win	Loss	Tie
1. George Korhut	10	2	1
2. Jim Conway	9	2	1
Blue Division			
1. Peter Chen	6	1	3
2. Jim Petro	10	3	1
Green Division			
1. Les Lawrence	9	2	1
2. Howard Gittleston	8	2	0
3. Tom Iarocci	8	2	2
Gold Division			
1. Bob Feindt	7	5	2
2. Charlie Flood, Jack Detweiler, John Dioguardo, Dick Hildenbrand and John May are close behind.			

Jim Conway is working on a big 18 hole tournament for August 24th. Reserve the date and let's try for 100% turnout.

New York Nets At BNL Friday, August 11

If you or one of your family members are interested in basketball, come to the Gymnasium at 5:30. We've arranged to have two of the New York Nets Professional Basketball Team show you how it's done.

Joe DuPre and Jimmy Ard will be here in person to demonstrate some of the tricks and talents that helped their team into the American Basketball League Championship Play-Offs. They will demonstrate special shots, ball handling and sign autographs.

Admission is Free! The clinic has been scheduled for your convenience immediately after work and should finish at 6:30 p.m.

The arrangements for this program are being handled by a Joint Committee of the Officers of our Basketball Program, with the advice of the Special Event Committee and the Recreation Office.

Call George Sabine, Ext. 2873 for additional information.

Softball News

Jim Petro

University League

- Saints 8 - Gotchas 3
- Gotchas 24 - Saints 13
- Oh Kays 17 - Odd Couples 5
- Oh Kays 12 - Odd Couples 9

In a double header the Gotchas (2-2) split with the Saints (1-3). In the first game the Saints got good fielding from Mikey McCarthy and Ann Marie Vasquez to hold the Gotchas to 3 runs. Diana Bartelt's debut as a pitcher for the Gotchas was a losing one. In the second game the Gotchas got some long ball hitting from George Morgan (2 homeruns) plus a balanced team effort to overwhelm the Saints. Oh Kays (4-0) extended their winning streak to 9 games by sweeping two games from the Odd Couples (1-3). In the first game the girls contributed to the win with good hitting and Ed Taylor had a homerun. The second game was closer but the homerun power of the Oh Kays won out. Roy Evans (2), Vernon Faine (1) and Kenny Sutter (1) all homered for the Oh Kays. Ruth and Vernon Faine combined for a fine double play in the second game.

Laboratory League

- EAO 45 - Converts 10
- Six Pax 27 - Charlie Browns 14

EAO (2-1) made a run at the high score for the year by battering the Converts (0-4). George Speidell pitched well and was backed up by a homerun barrage. Homerun's hit by D. Vail (2), G. Speidell (2), Wokosky (2), A. Krupien (2), Vall (1), and Klemish (1) for a total of 10. Royce Pinnix was 6 for 7 for EAO. Six Pax (4-0) won their 10th in a row by downing the Charlie Browns (1-2). Leroy James had a great night with 5 for 5 including 2 homeruns (1 grand slam) and 10 RBI's. C. Bohlenblusch and Vinnie Lodestro each had 4 for 5 for the Pax. Larry Schiro reported to be having a good year on the mound for the Pax. Charlie Browns kept the score respectable despite playing with 8 men.

National League

- Bio Meds 16 - Applied Math 9
- Bubble Boys 29 - Kumquats 15

Bio Meds (3-0) now playing a good ball after a slow start won their fifth game in a row by handling AMD (1-1) their second

Tennis News

There has been good progress in all events of this year's BERA Tennis Tournament. Contestants are reminded that it is the winner's responsibility to report the results of each match so that the results may be posted promptly. Please don't enter the result on the schedule posters in the Gymnasium. Use the memo slips and the envelope provided for results.

The weather has cooperated thus far, and there haven't been any rain delays. It would be too much to expect this good luck to continue for much longer. Therefore, try to schedule matches for early in the week so that they can be rescheduled within the same week if there is rain.

The posted results as of Friday (July 28):

Men's Singles

Preliminary Round: Goosman-Appel, 6-0, 6-1; Lazareth-Chu, 2-6, 6-1, 6-4; Boecker-MacKenzie, 6-2, 6-1; Horwitz-Bailey, 6-3, 3-6, 8-6.

First Round: Brandon-Baum, 6-1,6-0; Lumpkin-Foley, 6-0, 6-2; Passell-Goosman, 6-3, 4-6, 6-2; Boecker-Scarr, 6-2, 1-6, 9-7; Auskern-Platner, 6-2, 6-1.

The Walter W. Merkle Men's Doubles

First Round: Lumpkin, Passell-Goosman, Chu, 6-1, 6-4.

Second Round: Shapiro, Rosso-Levin, Baum, 6-7, 7-5, 6-4.

Ladies' Singles

First Round: Phillips-Sapp, 6-2, 6-2; Auskern-Schairer, 6-2, 6-2; Appel-Seltzer, 8-6, 6-3; Michael-Nawrocky, default; Iwai-Wells, 6-2, 6-1.

Mixed Doubles

Quarter-Final Round: Kevey, Kevy-Appel, Appel, 6-0, 6-1; Michael, Michael-Palmedo, Schaeffer, 6-1, 6-2; Iwai, Iwai-Phillips, Phillips, 6-3, 6-0.

Attention Bowlers

Now is the time to start planning for the fall Bowling Season. Plans are being made to begin some time in September. Anyone who is an employee of the Laboratory or an affiliated employee (AEC, Physical Review, AUI, etc.) is eligible. Look around and see if you can come up with a departmental team and come out and bowl. Entry applications will be available soon so watch the area bulletin boards.

loss of the season, both at the hands of the Bio Meds. The Meds trailing by 2 runs in the fifth inning exploded for 11 runs to break open a tight game. Joe Abata had 4 for 4 for the Meds with Dick Ruffing 3 for 5 with two homeruns. Bubble Boys (1-1) exploded for 33 hits to score in every winning to down the Kumquats (0-3). Joe Nardi had 5 hits for the Bubble Boys with V. Chiampou hitting a homerun for the winners.

Brookhaven League

- Dirty Sox 12 - Old Timers 8
- Blue Jay 7 - Metallurgy 5

Dirty Sox (3-0) maintained their position in the League by downing the Old Timers (1-2). Sox jumped out to a 5 run lead in the first inning and survived a 5 run old timer rally in the 2nd inning for the win. A balanced team hitting attack by the Sox was the difference with Walt Wild hitting a homerun. Dick Adams had a long homerun for the Old Timers in the 7th. That was not enough to close the gap. Blue Jays (3-0) kept pace with a win over the Metallurgy team (1-2). Dan Oldham was 3 for 3 for the Jays with Ed Meier contributing a homerun. "Doc" Carsten had a fine night with 2 for 3 at the plate, 5 assists from the field and 4 strikeouts on the mound.

Free Jazz Concert

Residents of the Suffolk County Infirmary, plus hundreds of jazz lovers from all over Long Island, will be treated to a program of America's Music on Sunday, August 6, from 5 to 7 p.m. in Yaphank. The free outdoor concert is presented by International Art of Jazz, Inc., in cooperation with the Suffolk County Department of Social Services and the Suffolk County Department of Parks, Recreation and Conservation.

Two giants of jazz will make one of their rare appearances on stage together as the Marian McPartland Trio and the Jim McPartland Dixieland All-Stars join forces to bring this afternoon of music to the heart of Suffolk. The broad range of the McPartlands' combined talents gives the concert appeal to people of all ages and of varying musical tastes.

The concert will be held outdoors on the grounds of the Suffolk County Infirmary, Yaphank Avenue, Yaphank, just one mile from L.I. Expressway Exit 66. Audiences are urged to bring blankets or chairs for their listening comfort. For further information, call (516) 277-2057 or 261-5582.

Classified Advertisements

Employment Notices

The BROOKHAVEN BULLETIN each week will list job openings which have come to our attention and may be of interest to Lab employees. Each listing will be repeated (if still available) only once. For further information, please contact Employment Supervisor, Ext. 2879 or 2882.

DATA SERVICES ASSISTANT - Key punching experience required. National Neutron Cross Section Center, Department of Applied Science.

CLINICAL DIAGNOSTIC BACTERIOLOGIST - Bachelor's degree or equivalent experience. Medical Department.

MACHINE SHOP FOREMAN - Staff Shop, Physics Department.

OFFICE SERVICES ASSISTANT I - Mechanical Engineering Division.

REACTOR INSTRUMENT GROUP TECHNICIAN - Two years technical school or equivalent required. Reactor Division.

Autos & Auto Supplies

68 CAMARO - 6 cyl, 230 cu in, 3 spd, FM/stereo tape, 42,000 mi, snows, must be seen in Lindenhurst. Asking \$1100. Steve, Ext. 3475.

61 CHEVY 1/2 TON PICKUP TRUCK - Good cond. \$400. 744-9785 after 6.

64 CHEVY NOVA SS - Excel cond, auto trans, ps, new batt. Asking \$450. Dot, 286-8909.

VOLVO - Running cond. \$100 or best offer. 744-9686 after 6.

66 VW BUS - Rebuilt eng, curtains & paneling, 3 spare tires. D. Daniels, 475-4975.

69 MGB - Red, wire wheels, am/fm, wooden wheel, good tires, tonneau & boot, good cond. \$1700. JU8-4766.

MAGS - 4 Chevy stock mags w/tires. \$50/set. 286-0436 after 5:30.

68 MUSTANG - Ps, 289, auto trans, good cond, new shocks, front tires & exhaust sys. \$1300. 727-5194.

65 FORD FAIRLANE 500 - 289 cu in V8, 4 dr, blk, auto trans, w/w, radio, extra tires & rims, excel cond. \$450. Harry, Ext. 4508, 589-4363 after 6.

66 FORD CUSTOM - 6 cyl, good trans, std shift, good rubber, excel gas mileage, burns no oil. For more info, 281-5304.

Classified Advertisements

69 VW RADIO - "Sapphire 9." \$25. Gordon, Ext. 4613.

70 COUGAR CONV - White, auto trans, ps/pb, 352 cu in, orig owner, must sell - moving, excel cond. \$2600. 475-3574.

HUBCAPS - Fo - 65 Mustang, 14" wheels, to be sold in lots of 2 or 4. \$2 ea. Ext. 4028.

TIRES - 5-6.50x15 tubed tires on rims, 1 unused, 4 w/5000 mi, best offer. Wally, Ext. 2262.

2 SNOW TIRES - Like new, on 70 Dart rims, 6.95x14. \$35/both. Laura, 727-0736.

TIRES - 5-9.50x16.5 8-ply tires, mounted on 8 hole rims, ideal for 3/4 ton pickup camper, very good cond. \$275. Tony, Ext. 3975.

69 VW BUG - 55,000 mi, excel cond. Asking \$1100. Robin, 286-8968.

69 CAMARO SS - 350-300 hp, 4 spd, p/disc brakes, new clutch & starter, 39,000 mi, burglar alarm, runs very well. \$1800. 281-8044 after 5.

68 PLYMOUTH VALIANT - Green, 4 dr, 6 cyl, manual shift, r/h, good cond. \$600. Arnie, Ext. 2449.

69 MERCURY CYCLONE FASTBACK - Fully pwr'd, air cond, etc., excel cond. \$1900. T. O'Brien, Ext. 3305. 924-6596 after 6.

65 VW BODY - W/2 new fiberglass front fenders, \$50; VW 5-hole rims w/tires on, \$2.50 ea. F. Paffrath, Ext. 4407. 864-1214.

65 OLDS F-85 - V8, std trans, r/h, snows; eng, body, tires very good cond, needs clutch work. \$300. Ext. 3871.

52 PACKARD PATRICIAN 400 - 4 dr, mint int, excel cond, new tires, brakes, auto trans, pb. \$750. 862-8641.

62 COMET - 4 dr, good rubber, 7 wheels, 2 w/snows, reliable transportation. \$175. Webster, Ext. 2564.

3/4 TON FORD PICKUP - 68-302 eng, auto trans, good tires, new muff, brakes, kingpin, water pump, runs well. \$575. Saxon, Ext. 3435.

64 MGB - Green, radio, runs well but needs TLC (or STP). \$350 or best offer. Charlie, Ext. 3397.

68 KAWASAKI - 175 cc road bike, elec start, good cond, needs new batt. \$225. Sharon, Ext. 4007.

TIRES - 7.60x15, \$6; 8.85x15 snow, \$6.50; 8.55x15 snow, \$6; 6.70x15, \$6. Ext. 2907.

63 CHRYSLER - 2 dr sedan, auto trans, ps/pb. \$175. Ed, Ext. 4531.

64 CHEVY NOVA - 427 eng, straight axle, 4 spd, mags, new batt, am/fm radio, never raced. \$1300. 732-3338

2-15" RIMS - W/tires, 5 holes. \$7. O. Booker, Ext. 4719.

67 MUSTANG - 289 V8, 4 spd std trans, ps, very good cond, avail end Aug. Ext. 3562.

65 FORD GALAXIE - V8, auto trans, ps. \$350. Lou, Ext. 3506.

SEAT - For carryall suburban vehicle, bench & back attached, excel cond. \$15. Ext. 3601.

66 OPEL WAGON - New valves, clutch, exhaust, batt, timing chain, tires good, 32 mpg, some rocker panel rust. \$250. E.W. Anderson, 289-0742.

65 FORD FALCON WAGON - 2 dr, std trans, runs well, make offer. Hugh, Ext. 4458, 744-8632.

66 ROVER SEDAN - Needs some body work but runs well. Ext. 3236, days & eves.

Boats & Marine Supplies

25' AUX SLOOP - Keel, w/3' draft mahog hull, good buy for great sailing. \$1875. Ext. 4508, 878-0642.

30 HP EVINRUDE OUTBOARD - Elec start, runs well. \$85. E. Harris, Ext. 4666, 475-8504.

AQUA METER COMPASS - When new \$20, now \$10. Cesar, Ext. 2942.

SEAFARER 26 - Fiberglass sloop 1971, immaculate cond, compl equipped w/main, jib, 9.5 hp ob, life-lines, etc., etc. \$7300. Nancy, 727-0736.

22 HP ENG - Palmer IH-60, 4 cyl, excel cond. \$850. Paul, Ext. 4268, 298-4985.

AUX CRUISING SLOOP - Heavy displacement, fiberglass, sleeps 4, is 27' LOA, excel cond, many extras. 298-4566.

CONTROL BOX - For Mercury outboard, \$8; 1957 Evinrude 35 hp, \$125. E. Harris, Ext. 4666, 475-8504.

SAILBOAT - Comet No. 2014, 16', good cond, fully equipped to sail away. \$500. J. Coggins, Ext. 3379, 475-3821 eves.

DIESEL - 6V53 Detroit GM marine eng w/2:1 Warner gear, 1500 hrs of use. \$3500. RA8-2265 after 6.

CLAM RAKE - 22 tine, no handle. \$30. Marty, Ext. 3284.

35' OCEAN GOING SLOOP - Blt hull & '65 diesel aux, fully equipped. \$18,000. Forsyth, Ext. 4676, 286-9721.

Miscellaneous

LATEST 8 TRACK TAPES - New. \$3 ea, 2/\$5. C. Nielson, Ext. 4280, 325-0968.

CAMERA - Argus C-3, 35 mm, w/slide projector & flash. \$35. Lee, 286-8071.

DEN SET - Sofa w/matching chair, blk leatherette. \$75. Lee, 286-8071.

DIN RM SET - Maple early Am, table, 4 chairs, buffet, open china closet. \$1500. Lee, 286-8071.

KIRBY VACUUM CLEANER - W/all attachments plus sander discs, paint spray & drill. \$75. Lee, 286-8071.

POLAROID CAMERA - Colorpack IV, w/timer, elec eye exposure, uses flash cubes. \$25. J. Zahra, 727-7480.

LEAVING COUNTRY, MUST SELL - Nursery furn, children's furn, oiled walnut bedrm set, washer, stereo console. Bill, Ext. 3817, 744-0261 after 6.

BABY ITEMS - Light wt carbed/carriage, \$10; edison crib w/matt, \$15; hi-chair. Witkover, Ext. 4592.

DRAPES - New, blue & green pattern, thermal lined perma-prest, 96w x 84l. Cost \$25, sell \$15. Witkover, Ext. 4592.

GARDEN TRACTOR - 14 hp rototiller & 18" blade, used less than 75 hrs. Cost new \$2000, asking \$1450. Mel, 878-1794.

SINGLE BED FRAME - Box spring & matt. LoRe, 744-0548.

FRAME - For patio awning, steel pipe w/all fittings to cover area 12'x20'. \$50. Eric, Ext. 3381.

SWIMMING POOL - 18'x4', Harrow's best, extra heavy duty liner, filter & pump, safety ladder, thru wall skimmer, all brand new, never used. \$350 compl. Doug, Ext. 2382.

1/4 TON CAP TRAILER - In new cond, fine light wt excel trucking unit for all car sizes. 298-4566.

BEST OFFER - Takes photographic encyclopedia set. 298-4566.

SONY STEREO TAPE DECK - 35 3D w/3 heads for tape monitoring, 3 mos old. Lists for \$240, asking \$175. Don, Ext. 3510.

GITAR - Guild 6-string hollow-body guitar. Orig \$550, asking \$150. Ext. 4512 Mon, Tues, Wed; 473-1154 eves.

PONY - 8 yrs old, good w/children, \$30; saddle, \$25. Vince, Ext. 3368.

HIGH CHAIR - \$7; safety car seat w/headrest & seat belt, \$8; safety gate, expandable, self-locking, \$2; Crennell, 929-6337 after 6.

GRANDMA FORGOT HOW FAST THEY GROW - Pr Clark's English sandals (size 5F) free to the right sized feet. Crennell, 929-6337 after 6.

TENT - Sears umbrella 9x11, \$25; log periodic fm antenna, \$8; elec carving knife, used twice, \$5. Crennell, 929-6337 after 6.

DIN RM SET - Walnut 8 pcs. Orig cost \$600 +, asking \$350. J. Titmus, 878-0159 after 5.

ARTLEY FLUTE - Silver, 1 yr old, like new. New cost \$150, sell \$85 firm. 281-8044 after 5.

RUG - 12x15 red tweed continuous filament nylon w/pad. Asking \$50. Witkover, Ext. 4592.

COLT NAT'L GOLD CUP 38 MR - W/clip & 1 box wad cutters, must have pistol permit, shoots WADC. Cost \$210.40, sell \$165. J. Zahra, 727-7480.

KODAK PWR ZOOM CAMERA - Uses spool 8 mm film w/sun gun & attachments, w/case. J. Zahra, 727-7480.

PERSIAN KITTEN - Silver male, CFA reg, show quality. 929-4631.

OFFICE CHAIR - Chrome swivel base, tan & dk brown upholstery, excel cond. \$35. 929-4631.

BICYCLE - 16" w/training wheels. \$8. Sue, 286-0407.

ACCORDION - 120 bass, very good. \$50. Bob, Ext. 4411.

SPRINGER SPANIELS - AKC, liver & white, blk & white, for field & show. 924-4865.

PENTRON MONO TAPE RECORDER - 7" reel to reel. \$25. Lou, Ext. 3506.

LAWN SWEEPER - Parker, new 26" brushes, Briggs & Stratton motor, all excel cond. \$75. E.W. Anderson, 289-0742.

JOINTER-PLANER - Wallace, w/1/2 hp direct drive motor, handles 6" stock, spare blades, floor stand, prof model, excel cond. \$95. E.W. Anderson, 289-0742.

ARCHERY TARGET - Tournament size, excel cond. \$10 or best offer. Tiny, Ext. 3260.

PICKETT METAL SLIDE RULE - Pocket size, log-log type w/case. \$6. Tiny, Ext. 3260.

REFRIG - RCA, good cond, 8 cu ft. Asking \$50. 281-4140.

ELEC MIXER - W/attachments, \$25; toaster, \$5; Mirro pressure cooker, \$8; all in good cond. 281-4140.

HIGHBACK SOFA - Colonial ugholstery & turquoise slipcover, \$125; desk, \$15; lg dresser & mirror, \$10. Lesley, Ext. 3412, 475-3821.

GITAR - "Chimes," f-hole, steel strings (but nylon sounds fine on it), good shape. \$15. Ext. 3871.

SINGLE BED - Foam rubber matt & box spring, \$10; 2 mahog folding screens, 4 panels 14"x64" ea, \$10 ea. 475-8971 after 7.

GE HAIR DRYER - Used, good cond. \$8. Diana, Ext. 3392, 924-4123.

CRIB W/MATT - High chair, training chair. Ext. 4138, 286-0375.

BOOKCASE - 4'x4'. \$10. Richard, Ext. 4389, 744-5219.

COLEMAN CATALYTIC HEATER - 5000 BTU. \$15. Clem, Ext. 4688.

LADIES BICYCLE - 26" Fleetwing, deluxe model, 3 spd, hand brakes, reflectors, w/w tires, used 4 times. Sacrifice. \$55. 475-0845.

BICYCLE - 20" convertible, w/training wheels; tri-cycle, reasonable; English baby carriage. Hugh, Ext. 4458, 744-8632.

REMINGTON ELEC TYPEWRITER - Lg office model w/all features. \$90. Ext. 3236, days & eves.

ELEC GRIDDLE - Teflon base, great for Sunday pancakes or eggs, hardly used. \$10. Ext. 3236.

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

STRATHMORE EAST-CORAM - 4 bedrm Jamestown ranch on 1 acre wooded plot, paneled fam rm w/fireplace, landscaped. 473-6370.

E. PATCHOGUE - South Country Shores section, 1 1/2 story cape, expansion attic, 3 bedrms, full bsmt, garage, city water, 100x150. 475-4598.

MASTIC - Mod 3 bedrm ranch on shaded 100x140 corner lot, compl fenced, full bsmt & garage, quiet neighborhood, near shopping, 8 mi from Lab, priced to sell. 281-4371 for appointment.

E. PATCHOGUE - 2 bedrm house, pine paneled, deluxe kitchen, screened breezeway, 2-car garage, 3/4 acre, 2 fireplaces, full bsmt, south of S. Country Rd, quiet wooded aera, lg homes. 289-0742.

For Rent

GREENPORT - Unfurn lower apt, 2 bedrms, liv rm, full bath, kitchen (all lg rms), walk to village & school. \$175/mo + util. W. Stars, Ext. 4278, 324-5692 eves.

ROCKY PT - 7 rm house, 2 bedrms, studio rm, Florida rm, fireplace, garage, pool, good location. 744-2327.

Wanted

RADIATORS - 12 sections, 5 or 6 tubes (four). H. Henck, 281-5626.

FULL SIZE GUITAR - Good cond. B. Zoller, Ext. 4615.

BOY'S BICYCLE - For 9 yr old, either 24" or 20" high rise. Jack, Ext. 4447; Joan, 744-3919.

BICYCLE - 3 spd Schwinn or equal, reasonable, boy's or girl's, good cond. 929-4175.

HOMES - For 9 wk old male kittens, unusually healthy, pan-trained, cute. D. Ott, Ext. 4046.

OWNER'S MANUAL - For 59 VW (prefer bus; bug OK, too). David, Ext. 4047.

GOOD HOME - For 4 yr old male German Shepherd watchdog, amiable & good w/children. 924-3622.

APT - Reasonably priced, in area of Lab. Paul, Ext. 4046.

HOME & SOMEONE TO LOVE - 4 kittens, 3 all grey, 1 orange, males & females. Ext. 4453, 751-7817.

RIDE TO ROCHESTER NY - Beginning of Aug, willing to share expenses. Ext. 3192.

HOMES - For 2 young, spayed female cats & 1 female kitten - 6 wks, all good w/children. Judi, Ext. 3180/3182.

REFRIG W/FREEZER COMBINED - Not self defrost, will exchange 55 gal hw heater (elec) if feasible. 281-2002.

Carpools

DRIVER WANTED - To compl 5-man carpool from Huntington. Irv, Ext. 4559; Herb, Ext. 4465.

Lost & Found

LOST - Tennis racquet, by courts. J. Conway, Ext. 4851.

Services

PLANNING A VACATION BY AIR OR SEA? - Call Lee, 472-0658 after 6.

LOBSTER-LIVE - \$1.50/lb. Paul, 744-3807.

TREE REMOVAL & CHAIN SAW WORK - Also light hauling, free estimates. Ken, 289-8212 eves.

OAK FIREPLACE LOGS - Custom cut, split, delivered & stacked, well seasoned. Ken, 289-8212 eves.

CHARTER FISHING - Out of E. Hampton, day or eve. John, Ext. 4666, 588-0619.

SUMMER HEAT TOO MUCH - Evening cruises w/ licensed captain out of E. Hampton, dinner res. avail. John, Ext. 4666, 588-0619.

TOM'S TV REPAIR - Expert color/b&w service in the evening at minimum costs. 878-0567.

Classified Ad Policy

Deadline is 12 noon Friday for publication the following week.

- The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
- All items for sale or rent must be the advertiser's property.
- Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
- Firearms offered for sale or trade may not be brought on site.

- Ads not carried because of space restrictions will be held for publication in the next issue.
- Ads are run only once and must be resubmitted if they are to be repeated.
- Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

<input type="checkbox"/> For Sale: Auto & Auto Supplies	<input type="checkbox"/> Wanted	Check <input type="checkbox"/> the heading applying to your ad. Print or type your ad in 20 words or less.
<input type="checkbox"/> For Sale: Boats & Marine Supplies	<input type="checkbox"/> Carpools	
<input type="checkbox"/> For Sale: Miscellaneous	<input type="checkbox"/> Lost & Found	

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 112, 40 Brookhaven Avenue.

(Name & Phone No. To Call)

Employee's Signature _____ Life No. _____ Ext. _____

Send to: Brookhaven Bulletin, 40 Brookhaven Avenue