

The Computer Connection To Better Buying

Brookhaven Lab buys about \$81 million worth of goods a year. That includes items as varied as stick-on labels, exotic metals and mass spectrometers, all necessary to carry out the business of scientific research.

But in addition to the \$81 million, the Lab spends a healthy sum just to cover the cost of buying.

What does it cost to buy? Consider these statistics. The average purchase order is for \$70. The cost of processing that order internally is \$105.

"It's been achieved by companies and documented by their consultants that a more efficient way to buy, account for, pay for, receive and manage goods can reduce purchasing costs by as much as four percent. That frees up a lot of money to do research," says Robert Moore, a management analyst in the Management Information Systems Division.

Moore is project manager of IPAP, so named for its goal of integrating the purchasing, accounts payable, receiving inventory management and order entry functions at Brookhaven. Scheduled for completion in December 1982, IPAP will be a powerful tool to aid the overall procurement process.

How It All Started

Moore says the idea for IPAP grew out of dissatisfaction with the current system, parts of which are twenty years old. He describes it as cumbersome to use because information is all too often outdated or inaccurate. Also, information is not easy to extract from the system, making it difficult to satisfy growing government reporting requirements.

So in 1979, a project team was formed, representing all interested and affected parties throughout the Lab. Disproving the common belief that forming a committee to attack a problem means it will never be solved, the IPAP team was very successful, says Moore.

The group did an in-depth study of what the current system was like, what was wrong with it, what was needed instead, and how to do it. They found, for example, that from day of requisition to day of payment, typically 44 people were involved in processing a purchase order. It was estimated the number could be reduced to 17, with the help of a computer.



In the Supply and Materiel Division, Bob Hannel, left, and Frank Kedenburg use IPAP to handle receipt of goods purchased by the Lab.

Doug Humphrey



Doug Humphrey

The Accelerator Department is the first to begin using work copies under the new IPAP system. To process purchase orders, Georgina Fuld, right, enters data into a terminal. Marianne Chludzinski, center, assists with data entry, and Stephanie Lamontagne oversees the department's transition to IPAP.



DOE Officials See BNL In Action

—photos by Humphrey

Mechanics

According to Moore, the foundation of the new IPAP system is modern hardware (a computer and terminals) armed with innovative software (computer programs to process data).

The appropriate hardware was on the market, but no programs existed that could totally satisfy the Lab's needs. So software was purchased and then modified.

Moore calls the new software package "truly unique, light years ahead of the market," and he predicts other companies like banks and insurance agencies will be quick to copy it.

Putting IPAP Into Operation

Now that the mechanical parts of the system are almost all in place and operating, attention has been turned to the people who will be using IPAP — people who will be either putting information in or getting information out.

Most of the general Lab population will only be involved as requisitioners. That's where work copy comes in.

Work copy takes the place of a purchase requisition. To the requisitioner, the most obvious difference between the two is the work copy's greater simplicity.

Once filled out, the work copy is taken to the department or division administration for approval, and all the data is entered into the IPAP computer via a terminal. When the correct code word is entered, the system accepts the order and electronically sends it to the Contracts and Procurement Division, which handles the actual purchasing.

The Accelerator Department was the first to start using work copies. Overseeing the department's transition to IPAP, Stephanie Lamontagne says the change-over began in December 1981. "It went very smoothly," she says, "with little resistance to the

new system. Most people were dissatisfied with the old."

Lamontagne cites only one minor problem, which actually reflects everyone's enthusiasm for IPAP. "People are disappointed the whole system is not in effect yet. Bob Moore made such a good sales pitch when we were first introduced to it, that people want the goods right away."

She is referring to the fact that a lot of useful information will be at the requisitioner's fingertips when all parts of the system go into operation about a year from now. For example, if one is trying to stay within budget on a large and complex construction project, one can use what Lamontagne calls internal tracking. Because it's computerized, the system can speedily track down costs against equipment and materials orders and deliveries.

Master Plan

After the Accelerator Department, the rest of the Lab will be gradually introduced to work copy. In the meantime, work is proceeding on development of the receiving, accounts payable, purchasing and inventory functions of IPAP.

To each group, the new system means a dramatic change for the better. For Contracts and Procurement, expediting orders will be easier to do with information so easy to retrieve. Also, because purchases can be projected based on historic need, better deals on bulk orders can be made with vendors.

The same advantage extends to managing the warehouses of Supply and Materiel. With real-time inventory, over-stocking and under-stocking can be greatly reduced.

IPAP will have a special feature for accounts payable in the Fiscal Division. When an invoice comes in from

(Continued on page 2)



Undersecretary of Energy Guy Fiske and Alvin W. Trivelpiece, Director of DOE's Office of Energy Research, came to Brookhaven on February 18 for a day-long briefing on the Laboratory's programs. On their list were visits to ISABELLE, the Light Source, the HFBR, the Tandem Van de Graaff, the Solar Neutrino program, and Nuclear Medicine. Above, Al Wolf, chairman of the Chemistry Department, shows Mr. Fiske the new cyclotron which will be used with the PETT VI machine. With them are Mrs. Fiske and Mrs. Trivelpiece, associate director Victor Bond and Barclay Jones (Chemistry Department) at right. Below, left, associate director Martin Blume, describes the operation of the Light Source to Dr. Trivelpiece. At right, acting director Nicholas Samios, explains the set up of the First Cell at ISABELLE's assembly area to Undersecretary Fiske.



Service Awards

The following employees received service award certificates during the month of February.

Thirty-Five Years

Karl H. Walther Chemistry

Thirty Years

Stanley Sajnacki Reactor

Twenty-Five Years

Gordon T. Danby Accelerator

William F. Gefers Accelerator

Mary K. German Chemistry

Harvey T. Lotko Accelerator

Ralph G. Perry .. Instrumentation

Meyer Steinberg... Energy & Env.

Twenty Years

Evelyn Blanck Fiscal

Dean Campbell Accelerator

Eena Mai Franz .. Nuclear Energy

William J. Gallagher ... Pl. Engrg.

Edward T. Grahn..... Accelerator

Austin R. Gwilt..... Accelerator

James J. Hurst Physics

Vincent Polywoda S.&E.P.

Gen Shirane Physics

Henry Sinning..... Pl. Engrg.

Ten Years

Jesse E. Becker Accelerator

Shih-Yung Hsieh Nuc. Energy

Marion Johnson Pl. Engrg.

Walter A. Sevian .. Energy & Env.

George S. Smith ... Energy & Env.

Matesh N. Varma S.&E.P.

Crop Rotation

According to the Cooperative Extension Association of Suffolk County, one way to prevent plant disease problems in the home garden is to rotate crops so that closely related plants don't follow one another in the same soil.

To rotate crops, simply keep a chart of your garden plan each year and don't plant crops from the following groups in the same space as the preceding year:

I — the nightshade family — tomatoes, peppers, eggplant, potatoes

II — the cole crops — cabbage, cauliflower, Brussels sprouts, broccoli, Chinese cabbage, collards, kale, kohlrabi

III — the gourd family - melons, squash, cucumbers, pumpkins, gourds

Sweet corn will also benefit from rotation. The organisms that cause corn smut, as well as the destructive corn rootworm, can build up in the soil, causing more trouble each year.

Other crops—including beans, peas, radishes, onions, carrots and greens — are less likely to fall victim to plant disease.

On The Receiving End

"You name it, we get it," quips Receiving and Traffic Supervisor Bob Hannel, summing up the job of Receiving in the Supply and Materiel Division.

Hannel's group also includes Frank Chandler and Oscar Sanchez, who handle shipping, but it's the receiving end of the team which has been intensively training to use IPAP, the Lab's new integrated inventory procurement and accounts payable information system. (See story page 1).

Trucks pull in and out of Receiving all day long, delivering an average of 200 receipts in a single day, says Hannel. With the help of six terminals, all connected to a computer in the Management Information Systems Division, processing those mounds of packages will be easier and more efficient.

When the idea was first introduced to the group, some people were concerned, remembers Hannel. But when the terminals arrived about a month ago and everyone got to try them out, they were convinced the change was for the better.

In the new system, Bob Spencer and Harold Bartlett receive the packages and enter into a terminal information to identify each box. Then checkers Frank Kendenburg, Clint Coone, Shelby Williams and Brian Mayo open the boxes to compare the contents with what was supposed to have been delivered, according to purchasing records displayed on the terminal screens. If goods are damaged or missing, that information is logged into the computer and checked out later by Hannel.

After the boxes are inspected, a simple command to the terminal triggers a printer that types out labels with delivery locations for each box. Even a dispatch sheet, organized by buildings, is printed out for the delivery drivers Tom Walters and Danny Stelmashuk.

Boxes that come in without shipping papers can be identified with just a single clue like a vendor's name. The computer can print out a list of all purchase orders for a particular vendor, and the contents of a box can be cross checked against the list.

Hannel says Receiving has not yet totally shifted over to IPAP. Right now, they are doing double duty as they continue to train on the new system. "Everyone is so eager about the



Harold Barlett, left, and Bob Spencer sort through the pile of packages delivered daily to Receiving's dock. The new IPAP system is streamlining the receiving operation.

Doug Humphrey

switch over, they compete for practice time on the terminals," he reports.

His entire group, including the two shippers, Storeskeeper Harry Bieselin, office workers Mary Sowiak and Pat Jencius, and helper Charles Whiting, is trained in all aspects of using IPAP to receive goods. Helping the group learn the new system is Ed Gallagher, from Management Information Systems Division, who troubleshoots the mechanical bugs of the IPAP computer and satellite terminals around site as the system is installed.

IPAP

(Continued)

a vendor, that information will be entered into a terminal. A special computer program called matching module will compare the invoice with the original requisition and with receiving information (see separate story on receiving, page 2). If all three match, then the computer will order payment. But again reflecting the system's good design, payment will be held until the last day of the terms specified on the invoice, for better cash management. The day they are due, checks are printed — automatically.

Electronic Linking

The matching module feature of IPAP points to a major advantage of the new system — all groups involved in processing a purchase order are electronically linked together. When one group enters data, everyone else gets the same information almost instantly.

And as Moore says, "Who can cheat with a system that's so easy to interrogate?" Although purchase orders will be authorized in the computer only when special codes are entered — and those codes can be changed at will — the system's real safeguard is easy data access, revealing everything that's been done.

The pieces are still being assembled, but Moore says, "IPAP will radically affect many of the Lab's central business functions."

— Mona S. Rowe

G. Goldhaber Named LI Achiever

Dr. Gertrude Scharff-Goldhaber of the BNL Physics Department has been selected by the 110 Center for Business and Professional Women as the 1982 Long Island Achiever in the field of Science. Nominated by BNL's Women in Science, she will receive the award on April 22 at the Fourth Annual Long Island Achievers' Awards Dinner.

This award honors an exciting and respected career in physics that began in 1935, when Dr. Scharff-Goldhaber earned her Ph.D. from Munich University in her native Germany. Before coming to Brookhaven in 1950, she held positions at Imperial College in London and the University of Illinois. She was named BNL Senior Physicist in 1962 and is now an adjunct Professor at Cornell University.

Although her research started out in ferromagnetism and the study of surfaces by electron diffraction, Dr. Scharff-Goldhaber soon turned to nuclear physics. Research she conducted during World War II and published in 1946 showed that spontaneous fission is associated with the emission of neutrons. While at BNL her main interests have concerned nuclear isomers, parity violation in electromagnetic transitions, and the relation between band structure and nuclear dynamics.

In addition to her research, Dr. Scharff-Goldhaber was the prime mover behind two important BNL programs. The Long Island Science Teachers' Training Program, which began in 1958, has evolved into the Energy Institute. Now under the guidance of DEE's Don Metz, the program acquaints local secondary school teachers with problems of energy production and consumption. In November 1979, Metz spoke about this program in the 169th talk of the Brookhaven Lecture Series, a program Dr. Scharff-Goldhaber initiated in 1960.

Dr. Scharff-Goldhaber is a member of the National Academy of Sciences. She is a Fellow of the AAAS and of the American Physical Society. In 1978 she was elected to a four-year term as Councillor-at Large of the APS. In this capacity, she has assembled a panel of physicists who are interested in promoting pre-college physics education.

Because of her strong interest in the documentation of nuclear physics results, in 1969 she was charged with assembling and chairing a National Academy of Science/National Research Council Panel whose purpose was to ensure the continuation of the Nuclear Data Sheets which had evolved under the leadership of Dr. Katherine Way. At present, Dr. Scharff-Goldhaber serves on a NAS/NRC Committee on the Education and Employment of Women in Science and Engineering.

The 110 Center, an island-wide organization which serves as a forum for education, professional advancement, socializing and networking for business and professional women, honors Long Island women who have made significant contributions to the advancement of women.

In addition to Dr. Scharff-Goldhaber's award for Science, 1982 Achievers include Sally Ann Slacke, Business; Sandy Chapin, Community Service; Hazel Dukes, Human Rights; Patti LuPone, Performing Arts; Dr. Jane Porcino, Gerontology; and Madeline Gardner, Education. A Special Award for Achievement will also be presented to Justice Sandra Day O'Connor, of the Supreme Court of the United States.

Dance Theatre Tonight



The fifth and final event in a month-long celebration of Black History will take place tonight, when the Bill Mackey Dance Theatre comes to Berkner Hall. Tickets to the performance, sponsored by the BNL Afro-American Culture Club, cost \$8 each and will be available at the door. Don't miss the 8 o'clock curtain for an exciting evening of Afro/ethnic, jazz and modern dance performed by this new and rising, Boston-based group in American dance. Tickets are also available from Berthel Becton, Ext. 4432; Mary Durham, Ext. 7981; Renee Flack, Ext. 3316; Michele Henderson, Ext. 4303; and Deidre Seymore, Ext. 5037.

A Change Of Plans

Due to unforeseen circumstances, the BERA Members Craft Exhibit will be dismantled on Monday, March 1, two days earlier than originally announced. Craftspeople must pick up their works at Room B, Berkner Hall, on Monday, between 11:30 a.m. and 1:30 p.m. *This is the only time that crafts can be collected.* The show will be open today until 5 p.m. and on Monday morning.

BROOKHAVEN BULLETIN

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Back Talk

To prevent chronic back problems, it is important to recognize things which can contribute to back pain. **Poor posture** and/or being **overweight** adds strain to the back. **Lack of exercise** leads to weak muscles that can deprive the back of optimum support. **Improper use of back muscles** can cause injury.

Following are suggestions which may be helpful in preventing back problems:

- **Walking** — Maintain good posture.
- **Sitting** — Use a hard chair with the spine pushed back into the chair. If sitting is prolonged, get up and move around periodically. On long car trips, stop every 1-2 hours to walk and relieve muscle tension.
- **Standing** — If prolonged, shift your weight often from one foot to another and move around as much as possible.
- **Sleeping** — Use a firm mattress. For additional firmness, try a 3/4-inch plywood bed board under the mattress.
- **Lifting** — Bend your knees; always squat and lift with your thigh muscles. Never bend over with your knees straight, using the upper torso to lift.

A program of regular exercise will help keep back muscles in optimal condition. Do exercises in the morning, if possible, since the back tends to stiffen up at night. Even simple stretching exercises will help loosen and relax back muscles. For a list of appropriate exercises, stop by the clinic. A word of caution: if you have any back problems or chronic back pain, check with your doctor before embarking on any exercise program.

—Caroline Kramer, R.N.
Occupational Medicine Clinic

On The Playbill

The Theater Group will present "The Play's The Thing," a classic comedy (circa 1926) written by Ferenc Molnar and adapted by P.G. Wodehouse, on March 19, 20, 26, 27 in Berkner Hall. Curtain time is 8:30 p.m.

The plot revolves around the activities of two playwrights, a young composer, their leading lady, and an aging actor who are members of the same houseparty on the Italian Riviera. It builds up to a riotously funny third act in which these characters present a play satirizing French romantic theater. The cast consists of Neil Baggett, Kurt Fuchel, Peter Irving, Sandi Lane, Bill Love, Bob Kinsey, and Tony Fainberg.

Tickets will be available at the door, or may be purchased in advance from members of the BNL Theater group. Prices are \$2.00 for students under 18 and senior citizens, and \$3.00 for others. Reduced rates of \$1.50 and \$2.00 are available for groups of 25 or more who purchase tickets in advance. Tickets are good for any one of the four performances. Call Ext. 5154 for further information.

Hospitality News

Louise Orr, a color coordinator of women's fashions, will be the guest speaker at the Hospitality Committee's next morning coffee get-together scheduled for Tuesday, March 2, at 9:30 a.m. in the Brookhaven Center. Ms. Orr will discuss various color schemes and styles of clothing suitable for different types of complexions and figures.

We would like you to join us for this very interesting presentation. Coffee, tea and danish will be served. Please come and bring the children. Babysitting will be provided free of charge. We suggest you bring along a toy or two for your child to play with.

Arrivals & Departures

Arrivals

Vincent J. Costanzo Jr. Plant Engr.
George R. Eleazer Plant Engr.
Pauline M. Gagnon Plant Engr.
Gordon E. James Reactor
John P. McTague Natl. Synch. Lt. Source
Theresa J. Strelecki Plant Engr.
Yang-Ho Sun Nuclear Energy

Departures

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

Dwight C. Brown Personnel
Royce E. Long Safety & Env. Prot.
Darryl W. Peters Chemistry
John B. Spraggins Nuclear Energy

Bowling

White League

S. Smith bowled games of 183/194/170 for a 547 scratch series which is high for the league. Other good games were rolled by J. Griffin 214, J. Petro 211, D. Adams 204, F. Brown 200, M. Belligan converted the 4-10 split.

Purple League

E. Sperry rolled a 233, P. Bonti 222/593 series, T. Romano 213, J. Sheehan 202, W. Milian 203, D. Penoyar 211, C. MacDougall 200, E. Meier and J. Austin converted the 6/7 split.

Red & Green League

Good games were bowled by A. Pinelli 236/223 for a 631 scratch, 712 gross series, J. Connelly 250, R. Jones 213, J. Bohenek 212, H. Marshall 210, G. Meinken 203, C. Neuls 203.

Pink League

E. Kristiansen bowled a 193, M. Connelly 179, R. Rosati 177, C. Beckner 166, H. Keeley 175/170, M-G Meier 161.

Scotch Doubles Tournament

Entries are still being accepted for the Scotch Doubles Bowling Tournament, Sunday, March 7, at 2 p.m. at Port Jeff Bowl. Entry forms can be obtained at the BERA Sales Office in the Cafeteria, or by calling John Connelly, Ext. 3284.

Cafeteria Menu

Week Ending March 5, 1982

Monday, March 1	
Turkey okra Creole	(cup) .55 (bowl) .65
Broiled chicken livers & 1 veg.	1.70
Ham & broccoli crepes	1.70
Hot Deli — Country-style pork sandwich	(bread) 1.75 (roll) 1.85
Tuesday, March 2	
Split pea soup	(cup) .55 (bowl) .65
Corned beef & cabbage	1.75
BBQ meatloaf w/1 veg.	1.75
Hot Deli — Roast turkey breast	(bread) 1.75 (roll) 1.85
Wednesday, March 3	
Beef barley soup	(cup) .55 (bowl) .65
Baked lasagna & 1 veg.	1.75
Chinese pepper steak on egg noodles	1.85
Hot Deli — 8-foot hero	.85/inch
Thursday, March 4	
Minestrone soup	(cup) .55 (bowl) .65
Western-style chili on rice	1.75
Top round of beef & 1 veg.	1.85
Hot Deli — Grilled Reuben	1.80
Friday, March 5	
Manhattan clam chowder	(cup) .60 (bowl) .70
Macaroni & cheese w/1 veg.	1.70
Turkey a la king on rice	1.75
Hot Deli — Fried clam roll	1.85



The American Brass Quintet

Pure Brass Or Pure Dixie

Two concerts are booked in Berkner Hall for early March. On Friday, March 5, the Dixie Bandits will present an evening of Dixieland jazz. The American Brass Quintet will perform a variety of pieces for brass instruments on Thursday, March 11.

The Dixie Bandits is a local ensemble that has been together for about two years. Its members, all of whom play or teach music locally, are Bob Dean, clarinet; Marty Stromsten, coronet; Ken Andresen, trombone; Peter Winkler, piano; Bill Troiano, tuba; and Ralph LaFemina, drums. Previously, the group has performed at area country clubs, libraries and cabarets.

Dixieland jazz was born in New Orleans around the turn of the century. It is a blend of the music of the Blacks of West Africa and the French and Spanish of Europe. The background of Dixieland is portrayed in a slide show created by the members of the group. This slide show will precede the concert. Then, the Dixie Bandits will present their program, including such old favorites as Tiger Rag, When The Saints Go Marching In and South Rampart Street Parade.

Tickets to the Dixieland Concert on March 5 will be available at the door. Tickets are \$4, adults; \$3 students and

senior citizens; and \$2 for those under 18.

The American Brass Quintet, a group of America's leading brass virtuosos, will present the fourth concert of the 1981-82 BERA Concert Series. In their work together, Raymond Mase, John Aley, Ronald Borrer, Robert Biddlecome and David Wakefield move easily from style to style.

This is reflected in their tour program which features a repertoire spanning five centuries. One set will be devoted to Elizabethan Dances by English composers. The Brass Quintet No. 3 in D-flat Major, Op.7, by Victor Ewald (1860-1936) will also be performed. In a different vein, the Quintet will present Americana Suite, which includes renditions of Blondinette Polka by Hosea Ripley, Beautiful Dreamer by Stephen Foster and Ellen Bayne Quickstep by G.W.E. Friedrich. Leonardo Balada's Mosaico (1970), Johann Sebastian Bach's Contrapunctus III and IX and Inglof Dahl's Music for Brass Instruments (1944) will round out this diverse program.

Admission to the March 11 performance of the American Brass Quintet is \$7 for adults, \$4 for students and senior citizens and \$3 for those under 18. Tickets will be available at the door.



The Dixie Bandits

Classified Advertisements

Autos & Auto Supplies

80 SUZUKI - GS1000L shaft drive, luggage rack, many extras, warranty, \$3,000. Ext. 7745 or 981-9474.
 CAMPER - fifth wheel Midas, 31 ft., less than 1,000 mi., must sell, asking \$9,000. Ext. 7130 or 929-8323.
 79 CHEVY PICK-UP - 4 wheel drive, short bed, 350, 4 spd, dual tanks, Scottsdale package, rear sliding window, rust-proofed, economy rear, 10,000 mi., like new, \$7,200. Ext. 7130 or 929-8323.
 53 WILLYS AERO LARK - rare, 37,000 mi., \$1,500; 1959 Studebaker wagon, \$500, excel. investments. 281-8031.
 TIRES - (2) G78-14, mounted on Pontiac rims, excel. cond., \$20 ea., or 2 for \$35. Ext. 2423 or 2173.
 78 HONDA - 400cc, well maint., 6,000 orig. mi., some extras, must see, \$1,000. Ext. 2926.
 80 MAZDA - RX7, immaculate, 20,000 mi., stereo cassette, 4 spd, black, silver striped, \$8,500. A. Waltz, Ext. 2537.
 77 MUSTANG II - New paint, new eng., more. 472-1473.
 72 DODGE DART - Custom 225, a/c, good radial tires, new brakes, excel. running cond., \$825. Om, Ext. 5332 or 928-2994.
 77 DATSUN - Pick-up, good gas mi., \$1,950. 929-8876 after 6 p.m.
 73 PLYMOUTH - Spt. Sub. 9 pass., a/c, p/s, p/b, p/dl, cruise control, roof rack, am/fm, \$950 or best offer. 325-0447 after 6 p.m.
 72 HARLEY DAVIDSON - FLH Police special, 1200cc, all stock, \$3,000. John, Ext. 4973 or 798-3766.
 80 CHEVY PICKUP - Diesel, 22,000 mi., Scottsdale pkg., a/c, bed liner, cap, running boards, extras, excel. cond., \$8,300. Ext. 4751 or 473-1967.
 TIRES - (2) G78-14, glass belted, new. Asking \$90 for pair. Carol, 289-3917.
 SNOW TIRES - (2) 8.00 x 16.5, good cond., \$35/pair. Steve, Ext. 4636.
 75 DATSUN - 610, 4 dr., a/c, am/fm, excel. cond., new brakes, \$2,000. Y. Inagaki, Ext. 3660 or 282-3115.
 SNOWMOBILE - Small, ex., \$75; 73 VW chassis, transaxle, new front end, no rust, asking \$400. 589-9103 eves.
 72 VW SQUAREBACK - sedan, a/t, runs well. Sy, Ext. 3600 or 289-8182.
 81 FORD ESCORT - 4 spd, overdrive trans., radial tires, 30+ mpg, excel. cond., \$5,600. 589-4555.
 78 VW SCIROCCO - 4 spd, 26,000 mi., Blaupunkt stereo, pinstriped, perfect cond., \$5,000. Ext. 2422 or 724-6661.
 68 VW BUG - recond. eng., new clutch, new paint, very clean, must be seen. \$1,875. 281-2431.

Boats & Marine Supplies

16' SILVERLINE - 1979 Johnson, new canvas, \$1,500. Kevin, 567-6651.
 64 MFG EDINBORO - 17' fiberglass boat, good cond., needs eng. and trailer, \$400. 929-8105.
 23' ALLMAND - fiberglass, 150 hp, Mercury I/O, cuddly cabin w/trailer, \$3,800. 475-2679 eves.
 18' RENKEN - 120 hp, Volvo I/O, used one season, extras, \$4,500. Ext. 2831.
 CANOE - 18' Grumman flatback, good cond., \$350. Ken, 289-8212 eves.

Free

REFRIGERATOR - 12'; Maytag portable dryer; both need repair, you pick up. Ed, Ext. 7786.
 PUPPY - German Shepherd/mix, 6 wks; aluminum cabinet, pick up; rooster. 924-4054.

Yard Sales

MOVING SALE - Sunday, Feb. 28, baby items, appliances, all must go. Apt. 36C on site. 282-3117.

Miscellaneous

GOLDEN RETRIEVER PUPS - AKC regist., \$250. 473-1175 after 5 p.m.
 DOWN JACKET - White Stag, women's sz. 9/10, red; tan corduroy skirt, sz. 7/8, button down. Ext. 3636.
 SKI BOOTS - Henke, women's sz. 5, leather w/buckle, \$10; catchers mitt, Regent, like new, \$15. Georgia, Ext. 2772 or 286-8869.
 SNUGLI BABY CARRIER - like new, \$25; Scott integrated amplifier, \$50. Diane, 929-6748.
 TV ANTENNA - power, Radio Shack, 240 mi. radius; men's fruitwood bureau, excel. cond. Jim, 924-7665 eves. or weekends.
 YOUTH BED - natural wood, made in Greece, \$35. Gail, Ext. 3338.

PORTABLE STEREO - w/Garrard changer, wing speakers, great for college bound, \$50. Ext. 2423.

STEREO AND RECEIVER - very good cond., \$200. 286-3149 after 5:30 p.m.

COLONIAL LOVE SEAT SOFA - new, w/pine arms, brown plaid. 744-4550 after 5 p.m.

C.B. TOWER - 40', tilt, Wilson "Y" quad antenna, rotor, cable & many other extras, \$150; all wood credenza, beautiful for dining rm. or liv. rm.; black Japanese Silk chickens. 751-5539.

CAR RACING SET - Aurora, AFX, GT (plus) cars, new pwr. transformer, extra tracks and cars, hardly used, like new. Mark, 744-8063 days.

RIEKER MEN'S SKI BOOTS - black leather, sz 9, with boot tree, good cond., \$20. Pat, Ext. 2452.

WINDOW SHADES - New & used, \$2 ea.; 2 kitchen chairs, \$10 ea.; oak chair, \$5; misc. Mexican pottery, \$25. 924-4054.

HAMBURGER MAKER - \$5; toaster, \$5; wooden chest, \$20; bar stools (3), \$ ea.; chest of drawers, \$20. 924-4054.

KITCHEN SINK - w/faucet, stainless steel, \$25; playpen, \$10; motorcycle helmet; meat grinder, \$5. 924-4054.

BICYCLE - Fuji Grand Tourer, 12 spd, like new, access., must see to appreciate, reasonable. Ron, 878-1731.

FRENCH PROVINCIAL SECTIONAL - Lt. blue velvet, very good cond., 3 yrs. old, orig. \$1,800, sell for \$400. 589-8129.

BARBER CHAIR - 1940's, porcelain, great conversation piece, \$150; electric barber pole light, \$120. Mike, 669-9482.

FURNITURE - contemporary, good cond. lv. rm. couch, 2 chairs, dinette set. Franz, Ext. 7103 or 744-3235.

TAPPAN - excel. cond., free standing, 2 broilers, 2 ovens, orig. cost. \$650, \$200 firm. Ext. 4275.

SMITH CORONA 800 - elec. adding machine w/tape, \$35. 325-1961.

BLANK CASSETTE TAPES - BASF Pro Series, also metal, reasonable. Ext. 2521 or 928-8379 eves.

MEDICINE CABINET - contemporary, set of blue ceramic fixtures, \$25. 281-4541.

STEREO RECEIVER - and (2) speakers, Emerson, excel. cond., still in box, \$200. 286-3149.

HAMILTON BEACH PROCESSOR - new, \$25; 25" b/w TV console, good working cond., \$20. Ext. 3403 or 751-1826 after 5 p.m.

20 GAL FISH TANK - plus stand, complete with fish, many extras, \$50. Bob, 289-3917.

YARN - custom blended by the oz. or lb. Jean, 698-6345.

COLOR TV - 19", good cond., \$125. 281-3992 after 5 p.m.

COMBINATION WRENCHES - American made, sizes 1-1/16, 1-1/8, 1-1/4, \$6 ea. Don, Ext. 7611.

FORMAL DINING ROOM SET - 9 pieces, table w/4 side chairs, one captain's chair, breakfront, sideboard, and buffet in mahogany veneer. 878-0074 after 5:30 p.m.

FREEZER - \$200; b/w TV, needs repair, \$25; girl's bike, \$45. Paul, Ext. 4156.

G.E. ELECTRIC - 4 burner, counter top, oven & sink, \$175 takes all. Ext. 2964.

REMINGTON PORTABLE TYPEWRITER - w/case, good cond., \$25. John, Ext. 4976 or 744-4386.

FIREWOOD - split, seasoned oak, 4'x16'x18", \$110 delivered. 924-4284 or 924-3919.

FLOOR POLISHER/SHAMPOOER - Sunbeam, 2 spd, \$20. Walter, Ext. 3397 or 567-9025.

BERA CONCERTS - (2) tickets for both remaining concerts, \$16 takes all. Rogers, Ext. 4222.

TWIN SIZE BED - \$40; full size bed, \$60; (2) chest of drawers, \$10 & \$8. Ext. 7547 or 821-9346.

PORTABLE FANS - (2) 20", \$10 ea.; 12" oscillating fan, \$15. Ext. 7547/7110 or 821-9346.

GIRL'S BIKE - 16" with training wheels, \$20; Big Wheel, \$6; trikes. Ext. 7547 or 821-9346.

19" COLOR TV - excel. cond., \$95; Panasonic stereo w/cassette tape recorder, \$95. Ext. 7547 or 821-9346.

ROTOTILLER - 5 hp, gear drive, 2 spd, w/power reverse, like new cond., \$225. 589-4363 after 6 p.m.

BOY'S 3-PIECE SUIT - w/white shirt, sz. 10, navy blue, polyester, like new. \$15. Ext. 2926.

CERAMIC MOLDS - sell lot or individual. Carol, 289-3917.

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

MATTITUCK - the orig. handyman's special, 2 story, 1400 s.f. wood frame w/fireplace, deeded boat slip r.o.w. on Mattituck inlet, water view. 298-9594.

LAKE PANAMOKA - 3 bdrm, high ranch, eik, d/r, full bsmt, 1 block to beach. 924-4054.

MILLER PLACE - contemporary ranch with \$ saving heat, 4 bdrms, eik, l/r, den, fenced yard, excel. cond. Rustic Acres, \$72,500. 331-3724.

RIDGE - 5 min. from Lab, 3 bdrm ranch, l/r, kit, d/r, spacious, picturesque den, energy eff. (12" attic insul.), 1 wood stove, 1 coal stove, 2-car gar., 3/4 acre, many extras, \$59,500. 924-6307.

MASTIC BEACH - 4 bdrm cape, low taxes, 160x100, gas h/w & cooking, walk to stores & bay, 8% farmer's mortgage, eik, d/r, l/r w/Franklin, \$28,000. 281-0360.

MIDDLE ISLAND - 3 bdrm Colonial, 2-3/4 acres, wooded, eik, l/r, d/r, den w/fireplace, s/s, w/w carpet, 2 baths, apt. in basement, kennel. 924-4054.

YAPHANK - 4 mi. from Lab, 3 bdrm ranch, new oil/hot water heat, fully heated bsmt, 2 lg rms in rear, acre, 7% assumable mortgage, \$26,000 cash. 924-6895.

For Rent

MASTIC PARK - 1 bdrm apt., near water, \$275 w/heat, 2 mos. security, references. 281-7844.

SETAUKET - colonial, 4 bdrm, l/r, d/r, f/r, full bsmt., 2 car garage, mint cond., walk to univ. (SUNY), avail. in March. Ext. 2611 or 751-3702.

WADING RIVER - furn. room in priv. house, near Wildwood State Park & priv. beach, quiet indiv. only, no cooking priv., \$45/wk., references. 929-4180 before 10:30 p.m.

PORT JEFF VILLAGE - studio apt., priv. ent., priv. bath, unfurn., \$225; furn. \$250. 473-7739.

Car Pools

PATCHOGUE VIA E. PATCHOGUE - on time, opening for paying rider. Alyce, Ext. 2902.

ELWOOD/E. NORTHPORT - (2) drivers needed for 5-man pool. Fred, Ext. 4407.

Wanted

JUGGLERS - We hear there's a lot of you out there and we'd like to write a story about you for the Bulletin. Please call Anita, Ext. 2346.

GAME MEAT - Ext. 4959.

SOMEONE INTERESTED - in subscription to Howard Ruff's, "Ruff Times" plus additional benefits, partnership. 369-2151 after 6 p.m.

WOMAN'S 3 SPEED BICYCLE - or will exchange woman's 10 spd w/racing handlebars. Claire, 281-2002.

FURNISHED APT. - 3 rm., for months July and Aug. 281-5532 eves.

BLACKBOARD - for small class instructions. George, Ext. 3636 or 759-1328 after 7 p.m.

RIM - (1) 15x8 for Jeep. Toni, Ext. 2907.

AMBITIOUS PERSON - \$200-\$300/mo., 6-8 hrs./wk. 698-5861 after 7:30 p.m.

SKI RACK - for roof top of sub-compact car. Ron, Ext. 3887.

DRUM SET - used, good cond., reasonable. Bob, 732-9517 eves.

PEOPLE - interested in sharing (2) upper reserve season box seats for 1982 N.Y. Yankees night games. 369-2151 after 6 p.m.

HOUSE TO RENT - furn., 3 bdrm, \$500/mo. or less. Ext. 3835/3102.

SMALL HOUSE - cottage for rent, preferably close to BNL. Ext. 4922.

ROOMMATE - to share small house, yard, pool, washer/dryer, wood stove, \$175 plus. 234-2034.

WALL AIR CONDITIONER - approx. 5,000-6,000 BTU's, must be in excel. cond. Ed, Ext. 7786.

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

HOUSEMATE - to share 2 bdrm condo, 5 appl., central a/c, Holtsville, \$225 incl. all util. Ext. 3199 or 475-6622 eves.

VW POP-UP CAMPER - '70 to '73, or comparable van-type camper, good cond., reasonably priced. Ext. 4321 or 3078 after 6 p.m.

CHILD'S PHONOGRAPH - in reasonable working cond. Diane, Ext. 2360.

CAMPBELLS SOUP LABELS - for St. Mary's School, East Islip. Send to F. Chandler, Bldg. T-89.

TRAINS - Lionel, any "0" gauge or "027" gauge cars, track and equip. Frank, Ext. 3120.

Lost and Found

FOUND - license plate #289 LUQ, owner can come to claim at Bldg. 475 (reception area). Ext. 2064.

Services

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

SHEET ROCKING - and spackling, free est. Kevin, 567-6651 or Tom, 234-4747.

KEROSENE HEATERS REPAIRED - Lab discount, parts avail.; 55 gal. drum, poly-lined, \$12. 581-0468.

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

INCOME TAX - exp. preparer, very reasonable rates. Bill, 821-9081.

INCOME TAX - prepared by professional accountant, very reasonable rates. Bob, 286-5829 eves. and weekends.

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

FIRESIDE CHIMNEY SWEEPS - fireplaces, wood, coal & oil flues hand cleaned & brushed, \$10 off - Feb. 28. Mike, 584-6425.

REGISTERED BROKER - financial management & advice, stocks, bonds, tax-free income, IRA's. Gene, Mon.-Fri. 829-9168, weekends 744-8659.

CARVING KNIVES SHARPENED - on a flat stone, \$10 per knife, a razor edge. Dave, Ext. 4755.

LIMO SERVICE - luxury chauffeured for proms, weddings, airport, all occasions. Roy, Ext. 4664 or 744-8779.

TILE SETTERS - ceramic, quarry tiles, no job too small, free estimates. E. Harris, 475-6460.

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

TYPING - 744-4047.

REPAIRS - int. & ext. painting, wallpaper hanging, ceramic tile work, etc., experienced & reasonable. 929-4180 till 10:30 p.m.

INCOME TAXES PREPARED - professional service by experienced preparer, IRS enrolled, year-round service. Jack, Ext. 7942 or 864-2236.

ROTOTILLING - \$15/hr., sign up for early Spring tilling, group rates, free pH test. Bob, 878-4556 after 6 p.m.

SMALL APPLIANCE REPAIRS - vacuums, typewriters, heaters, sewing machines, etc., No. Patchogue. 654-3900.

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

AUTO PARTS - for all VW, all new, large variety, lower than retail, Bosch & orig. equip., machine work avail. Augie, Ext. 5385 or 325-0594 eves.

Classified Ad Policy

Deadline is 4:30 p.m. Friday for publication Friday of 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.
- Ads for the sale or trade of firearms will not be accepted.
- 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. One ad per person per week.
- 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, Building 134.

For Sale: Autos & Auto Supplies For Sale: Miscellaneous Lost & Found Wanted
 For Sale: Boats & Marine Supplies Car Pools Services Free

Please print your ad below in 15 words or less using one word per block. Include name and phone number to call.

Note: The following must be completed for your ad to appear.

NAME (Please Print)

Employee's Signature Life No. Ext.

Send to: Brookhaven Bulletin, Building 134 (Ext. 2345).