BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Interested Industries Learn How to Build Magnets for RHIC

A major step toward full-scale, industrial production of superconducting magnets for BNL's Relativistic Heavy Ion Collider (RHIC) took place this week when 83 representatives of 33 companies gathered at Brookhaven for the RHIC Magnet Industrialization Program.

RHIC will be an accelerator in which two beams of heavy ions will collide at energies of 200 billion electron volts per nucleon at six points around a ring 2.5 miles in circumference. Some 1,674 magnets will be required to guide, bend and focus the heavy ions on their rapid journey around the ring. While the technology for building these superconducting magnets has been developed in the Magnet and Engineering Divisions of the RHIC Project, this technology will soon be transferred to industry.

Thus, this week's program attracted companies interested in and capable of building the various types of 8-centimeter aperture magnets that will be needed for RHIC. From November 13-15, Magnet and Engineering Division staff gave the participants an intense technical orientation into RHIC superconducting magnet technology.

The RHIC magnets that industry will be invited to build are depicted in the drawings being looked at by (from left) Erich Willen, Head of the RHIC Project's Magnet Division; Arthur Greene, Magnet Division Section Head; Andrew Feldman, RHIC Procurement Officer in the Contracts & Procurement Division; Eugene Kelly, Magnet Division Section Head; James Yeck, Acting Project Manager for RHIC, U.S. Department of Energy/Brookhaven Area Office; and Satoshi Ozaki, RHIC Project Head.

Magnet Division Section Head Eugene Kelly explained how the Lab plans to procure the magnets. "The magnet industrialization program will solicit requests for proposals beginning in January," he said. "After a ten-week bidding cycle, the proposals will be evaluated, and by mid-August we expect to start a contract with an industrial concern to build 373 dipole, or bending magnets. Bids for other magnets — including 425 quadrupoles for focusing, as well as 298 sextupoles and 428 correctors — will be solicited in May. We'll also be going out for bids for the fabrication of 442 individual cryostats, which will contain magnets supplied by industry."

Though the program concluded yesterday, many participants stayed on today to visit the magnet facilities and familiarize themselves more thoroughly with RHIC magnet technology.

Photos on this page by Roger Stoutenburgh.

Thomas Dilgen (left), a mechanical technician in the RHIC Project's Magnet Division, answers questions about operations in the Lab's RHIC magnet factory.

AUI Board Elects New Trustees

As the managing organization for both BNL and the National Radio Astronomy Observatory (NRAO), Associated Universities, Inc. (AUI) holds its Board of Trustees meetings at various locations. This year's annual meeting of the Trustees was held October 18-19, in Socorro, New Mexico, near the site of NRAO's Very Large Array.

Presiding was Barry Cooperman, University of Pennsylvania, who is in the midpoint of his two-year term as Chairman of the Board.

At the meeting, four new Trustees were elected : Robert Birgineau, Massachusetts Institute of Technology (MIT); Morton Corn, The Johns Hopkins University; Herman Feshbach, MIT, who formerly served on the Board from 1974-1987, including two years as Chairman; and Andrew Sessler, Lawrence Berkeley Laboratory.

The new Trustees replace retiring Trustees Gordon Baym, University of Illinois, who served for four years; Bernard Burke, MIT, 18 years; Hugh Huxley, Brandeis University, three years; and John DeWire, Cornell University, who passed away in September, after almost 15 years as an AUI Trustee.

Reelected to the Board were John Armstrong, IBM Corporation; Louis Girifalco, University of Pennsylvania; Paul Martin, Harvard University; Ralph Schwarz, Columbia University; and Richard Zdanis, Case Western Reserve University.

Trustees were also elected to serve on the Administrative Affairs Committee, the Audit Committee, the Environment, Safety and Health Committee and the Executive Committee.

Also at the meeting, the following officers were elected for one year: Robert Hughes, President; Thomas Davin Jr., Vice President, Corporate Affairs; Jerome Hudis, Vice President, Programmatic Affairs, as well as Comptroller and Secretary; Scott Lederman, Treasurer; and Victor Bremenkamp, Assistant Secretary.

Contributing to Arms Control

Within the Department of Nuclear Energy (DNE), much of the Technical Support Organization's (TSO) work deals with arms control verification. On Tuesday, November 6, U.S. representatives to the Conference on Disarmament in Geneva, Switzerland, visited BNL to become more familiar with this work.

The visitors were Ambassador Stephen Ledogar (front, second from left), U.S. Representative to the conference; Lyall Breckon (front, third from left), U.S. Deputy Representative; and Thomas D'Agostino (back, left), U.S. Department of Energy (DOE) Senior Policy Representative.

Hosting the visitors were BNL's Associate Director for Applied Programs Seymour Baron (front left); Joseph Indusi, DNE Associate Chairman and TSO Division Head (front right); DNE Deputy Chairman Robert Bari (back center); with Jefferson Neff (back right), Acting Area Manager, DOE's Brookhaven Area Office.

Among the topics discussed was the start of a new, one-year position of a BNL scientist as Technical Assistant to the Ambassador at the Disarmament Conference. This assignment was initiated by the DOE Office of Arms Control in support of Secretary of Energy James Watkins's instructions that DOE provide technical assistance to the arms control delegations. Arranged by D'Agostino and Indusi, the new post will be filled this year on a rotating basis by DNE staff members Ruth Kempf and Jonathan Sanborn.

Selective Evacuation Drill Scheduled for Next Wednesday

In area and population, BNL is a community. Like any community, the Laboratory tries to anticipate and prepare for a range of emergencies — and these preparations are detailed in the Laboratory Emergency Response Plan.

But it's not enough for the plan to be written — every part of it must be tested. That's why, in 1990, there have been 36 individual drills, which involved each major Lab facility and group. And that's why there's going to be another drill next week — this time involving the entire BNL population.

The drill will begin on Wednesday, November 21, at 4 p.m. It will be a selective evacuation drill, which means that the site is divided into zones, and each zone will be notified selectively of its turn to evacuate. The zones closest to the source of the "emergency" will be selected first for evacuation.

In a real emergency, Gerald Kinne, Associate Director for Reactor, Safety and Security, and Robert Casey, Head of the Safety & Environmental Protection Division (S&EP), would be in the Emergency Operations Facility (EOF), which is located at Police Headquarters, in their respective roles of Laboratory Crisis Manager and Laboratory Emergency Supervisor. Along with representatives of BNL's Safeguards & Security Division and the U.S. Department of Energy (DOE), they would decide if and when an evacuation would be necessary.

Though they have never had to make such a decision in real life, the upcoming drill will provide Kinne and Casey, as well as the rest of the

(continued on page 2)

Evacuation Drill (cont'd)

Lab, with an important chance to prepare for the unexpected. Such drills are required every two years by the DOE, and, Casey explained, "It's unlikely that a real evacuation will ever be necessary. But if it is, our evacuation drills will have helped us to determine the best procedure and provided good experience for our populace and our emergency personnel."

The experience gained from next Wednesday's drill will be incorporated into the Laboratory Emergency Response Plan, which is now being rewritten. Within S&EP's Technical Support Section, headed by Alan Kuehner, Andrew Hull heads the Emergency Planning Group (EPG), which is responsible for the plan. EPG's Frank Crifasi is the Emergency Planning Coordinator.

Drill procedures are summarized below, but anyone wishing more information may call Crifasi at Ext. 3144.

Drill Procedures

As the drill begins, the incoming lights at the main gate will be switched to red, and no traffic will be allowed to enter the site until the drill is over. Therefore, if the drill coincides with employees' arrival for an evening shift, they will have to wait to go on duty until the drill has ended.

Here are some questions and answers to help you prepare for other aspects of next week's selective evacuation drill:

Q: Who should participate?

A: All BNL employees and contractors should participate in the drill, though personnel essential for continuity of operations will be notified in advance to remain.

On-site residents are not expected to evacuate the site; they and their families should go to their quarters and stay there until the drill ends.

Q: How will the drill start?

A: The drill will begin with the Lab-wide alert signal — a continuous, five-minute sounding of the site sirens. At the same time, a general call will go out via the Plectron emergency notification radios to all department and division offices, which will then notify employees.

Q: What do I do after the drill begins?

A: As soon as you hear the signal, go to your building's assembly area. Your department or division's safety coordinator can tell you where this is. If you are in unfamiliar surroundings, go to the nearest principal building and ask where the designated area is.

Wait in the assembly area until notified, again via Plectron, that it is time for your zone to evacuate. All three gates will be open for exiting traffic.

Q: What if I'm in a car pool?

A: After all the people in a building have gathered at the assembly area, car pool drivers should proceed to their usual pickup points, then wait there until their passengers' zones have been evacuated, at which time they can be picked up.

Q: What if I'm taking the Lab car to the railroad station?

A: The drill will not affect this schedule. As usual, be at Public Affairs, Bldg. 134, at 3:55 p.m., for a prompt 4 p.m. departure.

Q: Will there be a final signal?

A: When traffic flow allows it, the evacuation signal — an intermittent sounding of the site sirens for five minutes — and a general Plectron call will signal immediate evacuation of all remaining employees.

(Clockwise from bottom left) Andrew Hull, head of the Emergency Planning Group (EPG), Safety & Environmental Protection Division; Inspector Alfred Berretta, Safeguards & Security Division; and Emergency Planning Coordinator Frank Crifasi, EPG, prepare for next Wednesday's selective evacuation drill by reviewing the Laboratory layout.

Photos on this page by Roger Stoutenburgh.

Leaving the Lab — After 35 Years or More

David Alburger retired as a senior physicist at the end of October, but he's been back at BNL doing physics every day since then — as a volunteer guest researcher with the Physics Department's Neutron Nuclear Physics Group (NNPG).

Alburger came to BNL in June 1948, right after he earned his Ph.D. at Yale University. Forty-two years later, he has decided that it is time to retire — but not to stop.

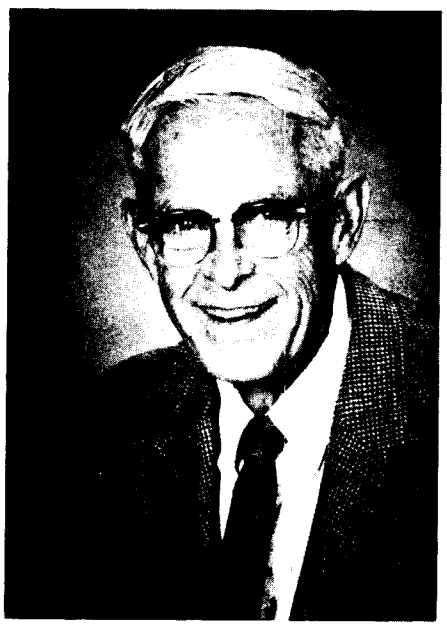
As Alburger explained, "A lot of people say when they retire that 'Brookhaven is a great place to have worked, but now I'm going to travel and so on.' But that's not for me. I always like to travel with a purpose, such as going to meetings or doing research at other institutions. That is the way I have seen a large part of the world. And I've had a working lifestyle that I've considered productive and have enjoyed for 42 years, so I see no reason to stop."

So Alburger's still going, under an unpaid guest appointment with the NNPG. He has been working with that group for the past three years — ever since the Tandem Van de Graaff accelerator began injecting heavy ions into the Alternating Gradient Synchrotron and was no longer available for research.

When Alburger first came to the Physics Department, there was no Tandem — only the 3.5-million-volt (MV) Research Van de Graaff, which was being installed in Bldg. 901. This Van de Graaff provided beams of various hydrogen and helium ions for the low energy physics program, and Alburger became group leader for the next 30 years.

As a nuclear physicist, Alburger was interested in new ways to study nuclear reaction mechanisms and the structure of compound nuclei. So, in 1962, with the help of Denys Wilkinson, he submitted the $12 million proposal for the double-MP Tandem Van de Graaff facility.

Completed on schedule and within the budget in 1970, the Tandem was for many years the world's largest electrostatic accelerator facility, providing researchers with beams of more than 40 different types of ions, from hydrogen to uranium. As the Tandem came on line, Alburger and Harvey Wegner became its first co-



David Alburger

group leaders for research and operation. They opened the Tandem to all comers with no charge for research beam time.

This generosity was repaid in 1981. "The users saved the day by protesting the proposed closing of the Tandem," Alburger recalled. "Shortly after that, the Relativistic Heavy Ion Collider [RHIC] was proposed, and the Tandem, which will be the heavy-ion source for RHIC, became a strong element in RHIC's advancement."

While at the Tandem, Alburger was on research teams that isolated several new radioactive isotopes, including silicon-33 and phosphorous-35 in 1972, and oxygen-21 in 1980.

His association with the Tandem, says Alburger, "was very satisfying. But the Tandem has now moved into a field way beyond my interests — heavy ions at very high energy — so I've gone to the reactor." Working with Rick Casten and NNPG at the High Flux Beam Reactor, Alburger says, "I'm looking forward to many exciting problems — there are several projects already under way."

Over his 42 years at BNL, Alburger has seen lots of changes. "When I first came to BNL," he recalled, "a computer was someone who sat at a machine calculator all day, grinding out numbers. Now information and data processing have changed in such wonderful ways. It used to take five days to send a manuscript to Europe; now I can do it with BITNET in an hour."

But while Alburger embraces the computer age, he still maintains his manual Remington Rand in his office — the same typewriter on which he originally typed many of the 250 papers he has published while at BNL.

"It's been a great place to work," he says, "and the main thing is the wonderful people I have had an opportunity to work with, especially Maurice Goldhaber, Denys Wilkinson and Ernest Warburton, with whom I will continue collaborating."

Another person Alburger recalls fondly is the late Arthur Schwarzschild, one of the nine Physics Department chairmen with whom Alburger has worked — and his first summer student, in 1951.

Just as he will keep up his research in retirement, Alburger also plans to keep up his exercise. "The principal, number one priority for people my age is health and physical fitness," he feels. "You must have a very strong exercise program."

Alburger practices what he preaches. His main exercise is running — 3.5 miles daily. "I have not missed a day in three years," he says, "and on my 70th birthday, October 6, I ran seven miles as a personal celebration." He also rows for 15 minutes and swims for 15 minutes each day.

Another Alburger interest is music — he plays viola in a string quartet and in the Baffa Symphony in Sayville.

For Alburger, then, retirement will simply be maintaining the status quo — with one small change: no paycheck. But that's all right with him. "I wanted to release my salary, to let new people come in," he says, "and the Lab's retirement plan is so superb that, with Social Security, it's a very comfortable income."

Though he'll still be at BNL regularly, Alburger's colleagues took the occasion of his retirement to throw him a party last Tuesday at the Brookhaven Center, where Wilkinson — now Sir Denys Wilkinson — presented a retrospective on his career. — Anita Cohen

Postponed: Next Outreach Workshop

The Outreach workshop entitled "Stress With Children," which was to be presented on November 20 and 27, has been postponed until 1991.

Next in the Outreach series sponsored by the Employee Assistance Program is the three-part workshop "Adult Children of Alcoholics and Co-dependency." It will take place as scheduled, on Tuesdays, December 4, 11 and 18.

More information about the next workshop will appear in the Bulletin of November 30. If you have questions about EAP or its 1990-91 Outreach workshop series, please call Ext. 4567.

Deadline Extended For FSA Enrollment

Because of the Thanksgiving holiday, the enrollment deadline for the Flexible Spending Account (FSA) program has been extended to Monday, December 3.

Both the Health Care and the Dependent Day Care Reimbursement Accounts will be effective January 1 through December 31, 1991, and are available to all regular Lab employees who work 20 or more hours per week.

Under IRS rules, employees currently participating in one or both reimbursement accounts who wish to continue participation for calendar year 1991 must complete a new enrollment application form even if they don't want to change their contribution amount.

Other employees wishing to enroll in an FSA for 1991, can obtain an application form at Personnel Services, Bldg. 185, Ext. 2877.

All completed forms must be returned to Personnel Services by December 3, for coverage to be effective January 1, 1991.

Arrivals & Departures

Arrivals

Sheila R. Bubka.....S&EP
Terry A. Maugeri.....Reactor

Departures

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

None

Patents Awarded

BNL collaborator **Joseph J. Kehayias**, Medical Department Senior Scientist **Darrel D. Joel**, Medical Department Scientist **William H. Adams** and BNL collaborator **Harry L. Stein** patented their new method of using a stable deuterium isotope, deuterium oxide (D_2O), in nuclear magnetic resonance (NMR) studies of blood vessels and organs.

The four were awarded U.S. Patent No. 4,893,627 for a method of using a solution of high-purity D_2O — the ratio of D_2O to H_2O is at least 99 percent D_2O by weight — as a dye-like agent. Because the deuterium solution is very pure and does not resonate at the frequency of water hydrogen, it appears as a dark dye when scanned by the NMR system.

When injected into a suitable artery or vein, the agent can provide images of blood vessels, blood flow through them and the organs fed by them.

The amount of D_2O necessary for successful imaging, doses ranging from 10 to 200 milliliters, is not toxic to humans. The patent holders suggest that this method of using D_2O may replace some uses of radioisotopes in NMR imaging studies.

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U.S. Patent No. 4,942,339 has been awarded to **Ady Hershcovitch** and **Krsto Prelec** of the Alternating Gradient Synchrotron Department (AGS), and **Vincent Kovarik,** now retired from the AGS, for inventing a generator that emits a beam of fast electrons with a narrow energy spread, which can be successfully transported for relatively large distances — up to one or more meters away from the source.

Existing generators produce electron beams with a narrow energy spread with a current of more than one ampere for short pulses only. The inventors wanted a multiampere beam with a narrow energy spread that was also "steady-state" — with a current that is continuous or coming in very long pulses.

The new generator uses a steady-state plasma source, with two types of electrons: bulk thermal and fast primary electrons. However, plasma sources are characterized by having high-emittance beams, due to a wide energy spread of the bulk electrons. Here, this is overcome by placing an electrically biased grid between the source and an extraction electrode. Both are electrically charged to extract the beam of electrons from the source and toward a target.

As the beam hits the grid, the bulk of the electrons, which have a large energy spread, are repelled back to the source. The fast primary electrons with low energy spread pass through the grid and form a narrow beam that can be transported at multiampere levels for well over a meter, and in certain cases, for several meters.

The new electron-beam source was invented for use in an EBIS (electron beam ion source) heavy-ion source that may have potential use in BNL's planned accelerator, the Relativistic Heavy Ion Collider. However, its unique features make it potentially very useful in other applications, from free electron lasers and steady-state gas lasers, to gyrotrons, which produce electromagnetic radiation.

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ANITA COHEN, Editor
MARSHA BELFORD, Assistant Editor
LIZ SEUBERT, Reporter

35 Brookhaven Ave., Upton, N.Y. 11973
(516) 282-2345

The Panocha String Quartet

The Panocha Returns

The Panocha String Quartet, which appeared in concert at BNL in 1985, will be featured again by BERA as part of its 1990-91 concert series. The critically acclaimed chamber group will perform in Berkner Hall on Thursday, November 29, at 8 p.m.

The Panocha started performing together during their student days at the Prague Conservatory in Czechoslovakia in the 1970s. Since then, they have established themselves as a top-ranking ensemble with an international reputation.

The quartet is named after its first violinist — Jiri Panocha — who has won many awards, including the title of Laureate in his home country. The other members are Pavel Zejfart, second violinist; Miroslav Sehnoutka, viola; and Jaroslav Kulhan, cello.

Known for its elegant and expressive interpretations, the Panocha has won critical acclaim for recent engagements at the Metropolitan Museum of Art in New York, Symphony Hall in Chicago, and the Library of Congress in Washington, D.C. The quartet has performed frequently in North America, and also regularly tours throughout Europe, South America, the Soviet Union, China and the Middle East.

The program for the upcoming concert at Berkner Hall consists of Beethoven's Quartet in E Flat Major, Op. 74, *Harp*; Boshuslav Martinu's Quartet No. 5 (1938) and Leos Janachek's Quartet No. 2, *Intimate Letters* (1928).

Tickets can be purchased at the door. Prices are $12 for general admission, $9 for students and people over age 65, and $5 for children under 18.

Holiday Notices

Brookhaven Bulletin

Because the Lab will be closed for the Thanksgiving holiday on Thursday and Friday, November 22 and 23, the Bulletin will not be published next week. The deadline for submission of ads for the next issue, November 30, is noon on Wednesday, November 21.

At this time each year, the Bulletin publishes a listing of the names and addresses of all retirees and employees on long-term disability. Look for that edition in a special distribution next week.

Notes to Diners

The Cafeteria will operate only the snack bar service from 9 a.m. to 2 p.m. daily over the Thanksgiving holiday weekend: Thursday, November 22, through Sunday, November 25.

The Brookhaven Center will be closed Thursday through Saturday, reopening at 5 p.m. on Sunday, November 25

The vended food service in Bldg. 912 will be in operation throughout the Thanksgiving holiday.

Pool & Gym Schedule

The pool and gymnasium will be closed for the holiday weekend, with the exception of Saturday, November 24, when only the gymnasium will be open for the regular hours of 10 a.m. to 6 p.m. The pool and gymnasium will reopen and resume normal hours on Monday, November 26.

SYBASE Presentation

SYBASE — a distributed, relational data base management and development system (DBMS) -- will be demonstrated on Tuesday, November 20, at 10 a.m., in the Computing & Communications Division seminar room.

A high-performance system, SYBASE responds quickly to multiple inquiries, while concurrently updating large databases. It employs a client/server architecture that separates data management and transaction functions from user interface and application functions. This DBMS is available on a wide variety of computers and networks. Connections to existing applications and data, such as Excel, Lotus 1-2-3 and Wingz is provided through various open interfaces.

A prototype SYBASE system is available for BNL users on the Sun/PC networking environment. For more information, call Susan Eng, Ext. 7988.

Amateur Radio Club

The Amateur Radio Club will meet in Berkner Hall, Room D, on Thursday, November 29, at noon.

The agenda includes nominations for officers for 1991, status of membership renewals, rearrangement of the ham shack and upcoming club activities.

BNL employees and guests who are licensed radio amateurs or wish to obtain amateur radio licenses are invited to attend.

For more information, contact Andy Feldman, Ext. 3264, or Bob Bacharach, Ext. 7790.

Bowling

Red/Green League

R. Eggert had a 246/211/642 scratch series, E. Carter 232/204/203/639 scratch, T. Prach 225/602 scratch, P. Ouvrard 213/203, D. Jesaitis 213, R. Larsen 212, N. Parrinello 212, M. Kelly 211, L. Jacobson 203, K. Riker 201/200, R. Mulderig 201.

White League

Ed Meier bowled 222/226, Larry Musso 221, Sam Logan 205, Paul Callegari 202, Joe Mayeski 200, Brigita Gordon 186, Frank Dusek converted the 2-10 split.

Purple League

Ed Sperry IV bowled 244/226/668, Sharon Smith 189/187, Kathy Griffin 185.

Hospitality News

Marion Davis-Parzen conducts a Women's Support Group on the third Tuesday of every month, from 10 a.m. to noon in the lounge of the Recreation Building in the apartment area. Sponsored by the BNL Hospitality Committee, this group meets informally to discuss topics of interest to many women, especially those living on site.

Volleyball

Standings as of November 7

Open League		League I	
Phoenix	10-2	Cannonballs	11-1
Me & the Boys	10-2	Upfagrabs	7-5
G-Team	10-5	Dinkers	7-5
Dig It	7-8	Rude Dogs	6-6
Magnum	6-6	Network News	5-7
Penetrating Vollies	5-10	Upsetters	0-12
Jet Setters	0-15		
League II		**League III**	
Nuts & Bolts	12-0	NoKaVe	7-5
Fossils	10-2	Nutcrackers	5-4
Pteropods	7-5	Undertakers	5-4
Net Wits	7-5	High Volley'em	5-4
Upton Ups	6-6	Renegades	6-6
Chunga's Revenge	3-9	Good Timers	5-7
Slammers	2-10	Sourcerers	3-6
Aces	1-11		

Join the Carolers

on Wednesday, December 19.
Rehearsals Dec. 5, 7, 12, 14, 17 at noon.
For info, call Janet Sillas, Ext. 2345.

BERA Toy Drive

For the seventh year, BERA is participating in the toy drive organized by Brookhaven Town. The 1990 Toy Drive began on November 13 and will run through Friday, December 7. The drive is an annual project organized to provide happy holidays for needy young people in our local communities.

Donations may be brought to the BERA Sales Office from 9 a.m. to 2 p.m. weekdays. New toys are preferred and are needed for children of all ages — infants through teens.

Volunteers are also needed to help sort the toys during a lunchtime or two. To volunteer, call Louisa Barone in the BERA Sales Office, on Ext. 3347, or sign up when you drop off your donations.

Basketball

The Basketball League announces a three-on-three, half-court, double elimination tournament on Thursday, December 6, and, if necessary, on Thursday, December 13.

Only BNL employees may play in this tournament, and teams must submit an entry fee of $15 when they register. Teams may register at the gymnasium Recreation Office weekdays, after 4:30 p.m., on a first-come, first-served basis as the limit is 20 teams. Registration deadline is Tuesday, December 4.

All participants should report to the gym at 5:15 p.m. on December 6 to begin the tournament.

Mt. Club Plans Hike

The Mountain Club is planning a day hike to Schunemunk Mountain during Thanksgiving weekend, on Saturday, November 24. The hike will be a maximum of 10 miles long, with a large amount of uphill climbing. Bring a lunch, trail snacks and at least one quart of water. Dress for windy weather conditions, and wear hiking boots with good treads.

The hike is free. The starting point is a 2½ hour drive from BNL. All Lab employees and their families are welcome.

For information about the hiking schedule, directions, and car-pool arrangements, call Susan Hobbie, Ext. 7511.

Cafeteria Menu

Luncheons

Monday, November 19

Soup: Cream of Mushroom	.75/.95
Entree: Baked chicken Dijon w/1 veg.	3.10
Entree: Combination lo mein w/1 veg.	3.10
Fitness: Baked broccoli quiche w/1 veg.	3.10
Carvery: Hot pastrami sandwich	2.85
Grill: Grilled patty melt	2.65
SPICE: Pilgrim special	

Tuesday, November 20, Holiday Menu

Complete dinner: soup, salad, one entree, 3 veg., cornbread & any dessert	4.95
Soup: Pumpkin	.75/.95
Entree: Sliced turkey w/stuffing & giblet gravy	3.10
Entree: Baked stuffed flounder	3.10
Entree: Baked Virginia ham	3.10

Enter your name to win a 20-pound turkey. Two winners will be picked.

Wednesday, November 21

Soup: Chicken corn	.75/.95
Entree: Baked fish jardiniere w/1 veg.	3.10
Entree: London broil w/1 veg.	3.10
Fitness: New Orleans pork Creole w/1 veg.	3.10
Carvery: Black Forest ham	2.85
Grill: Hot Reuben	2.85
SPICE: Bake sale	

Thursday, Friday, November 22 & 23
Open 9 a.m. to 2 p.m.

Breakfast w/coffee, 7:30 - 10:30 a.m. 2.65

Mon.: 2 eggs, bacon & pancakes
Tue.: Western omelet, French fries, toast
Wed.: Spanish omelet, home fries, toast
Thu.: 2 eggs, bacon, cheese on croissant, fries
Fri.: French toast, 2 eggs, bacon, home fries

Specialists Sought For BOCES Programs

Specialists in the fields of science and mathematics are needed by the Boards of Cooperative Educational Services (BOCES) Districts II and III to work on a part-time, reimbursed basis in programs for gifted and talented students. The BOCES II program is focused on elementary students in grades 4, 5 and 6 while the BOCES III program deals with students in grades 7 to 11.

For more information, contact Robert Bedford, BOCES II, 289-2200, or Robert McGrath, BOCES III, 884-1000.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

4338. PLANT ENGINEERING ADMINISTRATOR - Requires a bachelor's degree with an emphasis in accounting, substantial experience in budget preparation, and in-depth knowledge of IPAP, JCARS and the B&E. In addition, must have knowledge of IBM PC compatible spreadsheets and database software, and possess excellent communication skills. Will be primarily responsible for the planning, preparation, control and analysis of budgets, financial reports, labor rates and personnel records within the Division. Will serve as liaison between Division and other staff on site, and have supervisory responsibilities for administrative staff within Division. Plant Engineering Division.

Motor Vehicles & Supplies

89 KX250 DIRT BIKE - expertly maintained, extras, excel. cond. Lois, Ext. 4904 or Bob, 929-4753 eves.

88 NISSAN MAXIMA - 4-dr., navy blue, many extras, 40k mi., v.g. cond., $9,000. Lori, Ext. 7036 or 643-5016 eves.

88 FORD BRONCO II XLT - 4wd, a/t, ac, am/fm, p/s, p/b, ralb, p/w, p/l, many extras, 11k mi., $13,200. John, Ext. 5487 or 798-3766.

88 LINCOLN TOWN CAR - brand-new, Special Edition, factory spoke rims, only 3k mi., must see, $19,995. Mel, 288-1294.

88 TOYOTA - silver/pink, 5-spd., p/s, p/b, many extras, excel. cond. 821-6731 eves.

87 CHEVY LUXURY VAN - V-8, ac, p/w, p/l, a/t, cruise, hi-top TV, 20k mi., excel. cond., $12,500 firm. Charles, Ext. 2021, 288-1294 or 288-2080.

87 JAYCO MOTOR HOME - 25', 17k mi., awning, gen., cruise, sleeps 6, excel. cond., best offer. Lois, Ext. 4904 or Bob, 929-4753 eves.

87 BRONCO II XLT - 5-spd., ac, cruise, p/w, 30k mi., extended warr., visor, running boards, alarm, more, excel. cond. Richard, Ext. 5149.

86 DODGE VISTA - 7-pass. wagon, ac, a/t, p/s, p/b, am/fm cass., new tires & exhaust, silver, mint cond. Louie, Ext. 7609.

86 BLAZER S-10 4x4 - blue, V-6, 2.8l, ac, p/s, p/b, am/fm, 82k mi., good cond., $5,500 neg. Ext. 3268 or Ext. 2512 after 5:30 p.m., Room 15.

85 HONDA CIVIC WAGON - white w/red int., 80k mi., am/fm cass., good cond., $3,500. Ed, 331-1740.

85 HONDA ACCORD LX - 4-dr., 5-spd., $4,600 neg. excel. cond. 298-5438.

84 BUICK - loaded, 307, V-8, auto. o.d., moonroof, dual control, p/seats, new Michelin tires, $5,950. Carl, Ext. 5270 or 467-1744.

84 WILDERNESS TRAILER - 24', sleeps 8, excel. cond., $5,500 neg. Chris, Ext. 7636.

83 FORD ESCORT - 4-dr., am/fm cass., new battery, exhaust, no rust, $600. Steve, Ext. 5567 or 821-9048.

83 NISSAN STANZA - 4-dr. h/b, ac, stereo, 82k mi., good cond. Rick, Ext. 5886 or 751-7218.

82 FORD VAN E-150 - 8-pass., 6-cyl., p/s, p/b, ac, new battery, starter & exhaust, a/t, 105k mi., am/fm cass., $2,500. Bruce, Ext. 2953.

81 HONDA ACCORD - 5-spd., p/s, p/b, am/fm cass., new exhaust, some rust, runs well, $1,100. Steve, Ext. 4723 or 369-4922.

81 KAWASAKI 440 LTD - 13k mi., new tires, brakes, chain, sprockets, battery, sissy bar, must sell, moving, v.g. cond., asking $650. 474-5715.

80 HONDA ACCORD - h/b, runs well, am/fm cass., clean, $800. Jessica, 929-4753 eves.

80 CHEVY MALIBU - 4-dr., p/s, p/b, a/t, V-8, small 267, blue/blue, gauges, all factory, orig. owner, garaged, $2,000. Al, Ext. 3992 or 331-1003 eves.

80 GMC JIMMY 350 - a/t, ac, power everything, tilt, new tires, great cond., $4,900. Danny, Ext. 4988 or 286-8541.

80 BUICK LE SABRE - a/t, ac, p/s, p/w, p/b, am/fm cass., new tires, needs brakes, good cond. in/out, $600 or best offer. S. Spark, Ext. 4111.

79 FORD F-150 PICKUP - with shell, best offer. Ext. 3410 or 696-2258.

66 VW BUG - many new parts, tires, & paint, running & body cond. good, 6-V, 4-cyl., sunroof, $800. Jim, 878-2425 days.

RIMS - 4, 15x7 aluminium Chevy 4wd rims, $65 per rim. Ext. 2235.

CAR-TOP CARRIER - new, fully assembled, completely enclosed & waterproof, 18 cu. ft., $80. Don or Sue, 473-6570 after 7 p.m.

TIRE - new, Sears Super Guard, w/w radial, 14", P-195-75R14 M&S, can replace ER78-14-DR78-14 or 185R-14, $40. Fred, 286-0589.

FRONT & REAR ENDS - for '79 International Scout, Dyna 44 rears, $400. 289-7944.

TIRE - snow, on GM 5-hole rim, ER78-14, $15. Tony, Ext. 3658 or 929-4903 after 6 p.m.

TIRES - 4 ea., 7:50x16, truck, aggressive tread, v.g. w/tubes, $85. Bob, Ext. 4434.

TIRES - 2, Royal Seal steel-belted radials, puncture proof, P205/75R15, like new cond., orig. $125/ea., now $25/ea. 757-5338.

Boats & Marine Supplies

23' SLOOP - fiberglass, sleeps 4, 4' draft, 6-h.p. Evinrude, sails, like new, value $5,000+, much equip., must sell, make offer. 938-8353.

13' BOMBARD - 1987, inflatable, 30-h.p. Mariner, '87 trailer, all access., excel. cond., great scuba diving, must sell, moving, $3,500. 474-5715.

Furnishings & Appliances

FREEZER - Westinghouse, standard, 18 cu. ft., frostless, upright, excel. cond., $90. 874-4845 after 6 p.m.

LIVING ROOM SET - 6 pieces, must sell, $300. 698-5762 after 6 p.m.

AREA RUGS - Persian, $10-$30/ea.; antique stenciled stool, $45; amethyst glass, $22-$35; baby's walker, $10; amplifier, $20. Kathy, 744-2203.

REFRIGERATOR - GE, 15.6 cu. ft., frost free, excel. cond., $150. 289-7902.

SOFA - contemporary, high-back, light brown, like new, very comfortable, $150. 654-2617.

SOFA BED - Lazy Boy, single, brand-new. 722-4706 after 5:30 p.m.

TABLES - 3-piece set, cocktail & 2 end, wood, contemporary, excel. cond., $100/all. Margaret, 588-7989 eves.

DINING ROOM TABLE - early American, formica top, 42" round, w/2 leaves & 4 high-back chairs, dark pine, $175. 654-2617.

TRUNDLE BED - steel frame, Sealy mattresses, store as single, use as single, double or 2 separate single beds, $50. Marty, Ext. 4860 or 286-0478.

KITCHEN DINETTE - 42" round, formica top table, 4 captain's chairs, walnut color, excel. cond., $125. Bonnie, Ext. 2875.

RANGE/OVEN - electric, 4 burner, 24" wide, white, $175 neg. Chris, Ext. 7636.

RUGS - 8'x11' Oriental, $375; 8'x11' pastel, $450; 20' Oriental runner, $100, all 1 yr. old. Donna, Ext. 2716.

RUG SHAMPOOER - floor polisher, Sears, 3-spd., 12" 120 oz. capacity, $25; 30'x18' tarpaulin with grommets, new, $50. Pat, Ext. 3807.

WASHING MACHINE - Sears Kenmore, 4 yr. old, needs part, $15. 472-3254.

SEWING MACHINE - Singer, w/monogrammer, buttonholer, w/sewing hook, $25. Guo, Ext. 4100 or 3230 eves.

DRYER - Sears, gas, 2 yr. old, natural, $100. 654-0812.

Tools, House & Garden

STORM DOOR - 35"x82" w/screen, $35; 2 alum. storm & screen windows, $5/ea.; high chair, $15; pressure cookers, 16 qt., $15, 4 qt., $7. 878-6637.

COAL/WOOD STOVE - Rosieres, brown enamel, $50. Ext. 2050.

LAWN MOWER - 22" cut, 3½-h.p. Briggs & Stratton, $50. Dan, Ext. 4987 or 698-7322.

PATIO BLOCKS - used, 2"x8"x16", red & yellow, $20/ea., you pick up. 929-4326.

KEROSENE HEATER - Sears, 6,800 Btu, good cond., $40; rowing machine, good cond., $40. Mark, Ext. 7978 or 744-9308.

COAL STOVE - Franco Belge, model 10-275R, 60,000 Btu/hour, heats 17,000 cu. ft. Tom. Ext. 5350.

HOT WATER MAKER - Amitrol, residential; Beckett oil burner, all tubing, filter & fittings; two 275-gallon oil tanks. 289-0967.

COAL STOVE - Surdiac 60K, used 3 seasons, good cond., $250. Ron, Ext. 2214.

CEMENT MIXER - Jaeger, commercial, dual-mix, $600; circular saw, 6", orig. $128, now $95; small galley proof press, $50. 281-6378.

Sports, Hobbies & Pets

PIANO - Lester Betsy Ross, spinet, w/bench, excel. cond., $700. Tony, Ext. 3658 or 929-4903 after 6 p.m.

DRYSUIT - Poseidon, man's large, excel. cond., orig. $1,500, asking $500, must sell, moving. 474-5715.

ERECTOR SET - new, 300 pieces, motorized, $10; stroller, high chair, car seat, good cond., $4/ea. Judy, 698-4882 after 6 p.m.

EXERCISE EQUIPMENT - DP Trac 20, Universal body building, excel. cond., $250. Eileen, Ext. 4194.

RC TRUCK - 4x4 w/new trigger control, 2 new motors, everything brand-new, hardly used, $175. Danny, Ext. 4988 or 286-8541.

COCKATIEL - beautiful color, good talker, w/cage & all accessories. Jim, Ext. 4617.

GO-KART - 3 h.p., $200. John, 744-4386.

DRUM SET - Ludwig, complete w/cymbals & all hardware, great for beginner, $450. Jay, 473-3853.

Audio, Video & Computer

PROJECTOR - 8mm movie projector, portable, v.g. cond., $10. Guo, Ext. 4100 or 3230 eves.

TURNTABLE - AR77XB w/Ortofon cartridge, asking $50. 286-5962.

CASSETTE CHANGER - Panasonic carousel cassette jukebox, holds 20 cassettes, $300. Ext. 7014 or 281-8274.

COLOR TV - 19", hardly used, $180. Neal, Ext. 2907.

TAPE DECK - Sony, reel-to-reel, 7", w/twelve 7" reels, $35. 929-4326.

WOOFER - JBL D130F, 15", musical instrument driver, good cond., $50. Ext. 7657.

MONITOR - Monochrome, w/applicable controller card, 1 yr. old, asking $60. Cathy, 286-5962.

AMPLIFIER - Hitachi, 50 W/c, $50; Adcom 200 W/c. $200; AR TSW100, $125/pr. Cerwin-Vegg sub-woofer, $100. Greg, Ext. 2575 or 399-1258.

NINTENDO - guide book, 2 controllers, $60; w/6 games, $170; games sold separately, $20/ea. Matt, 928-8465.

Miscellaneous

BOOTS - lambskin interior, brand-new, size 12, med. width; car coat, ¾ length, size 50 XL; work coat, wool lining, ¾ length, XL. 924-3236.

NAVY PEA COAT - man's, $20; space heater, $20; firewood, 1 cord, $150; am/fm stereo, record player, $45. Kathy, 744-2203.

AUTOGRAPH - Tony Dorsett, Dallas Cowboy running back, 2nd leading runner in NFL history, $6. Pete, Ext. 2498.

LEATHER JACKET - man's size 40, $25. 281-6378.

Free

RABBITS - take your pick of the litter. Bruce, Ext. 2953.

HAMMERED DULCIMER - in poor condition; working fan motor for 20" box fan. Scott, Ext. 7110 or 874-3652.

Yard & Garage Sales

BELLPORT - Sat., Nov. 17, r/d 11/18, 10 a.m., teak dining room, riding mower, more, 5 Woodland Park Road. Paul, Ext. 7577 or 286-7127.

Lost & Found

LOST - sneakers, new, Reebok, size 6½, in men's locker room, Fri., Nov. 2. Ext. 4084.

Real Estate

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

For Rent

BAY SHORE - individual rooms, full bath, kitchen privileges, yard use & storage, $300, $380 & $420 + ⅓ utilities/mo. + sec. 665-5450.

BAY SHORE - 3 bdrm. & 2 bdrm. apt., $700/mo. & $600/mo. + util. Ext. 2411 or 331-4840.

CALVERTON - large room, bath, priv. ent., nonsmoker, no pets, 1 mo. sec., $400/mo. pays all. 369-2526 after 5 p.m.

CORAM - 4-bdrm. ranch, 2 baths, short-term, neg. Ext. 3791 or 928-7154 eves.

EAST MARION - 2-bdrm. cottage, 1½ baths, l/r-kit., dining area, stove & ref., water view, $450/mo. + util. & 1 mo. sec., 1 yr. lease. 924-6751.

EAST MORICHES - 2-bdrm. apt., ground floor of Victorian house, bath, kitchen, d/r, l/r, large yard, 3 blocks to bay, shops, school, $680/mo. + util. Mona, Ext. 5056 or 878-9384 eves.

EAST SETAUKET - 1-bdrm. apt., l/r-kit. combo, sunny, ground floor, sep. ent., cable, use of w/d, no pets,$600/mo. incl. all, avail Dec. 751-6091 or 632-6656.

MASTIC BEACH - 3-bdrm. ranch, newly remodeled, l/r, eik, appl., excel. location, $850/mo. rent or $85,900 neg. 281-8044.

MATTITUCK - 1-bdrm. apt., large l/r & closets, full bath, kitchenette, sep. ent., quiet wooded area, near water, nonsmoker, $450/mo. Ext. 7657 or 298-9560.

MT. SINAI - 1-bdrm. apt., water view, pvt. deck, avail. Jan. 1, $800/mo. incl. util. 473-5264 or 632-7023.

NORTH SHIRLEY - 1-bdrm. apt., priv. ent., quiet neighborhood, 3 mi. to Lab., $550/mo. incl. util & cable. 286-8543.

NORTH SHIRLEY - 1-bdrm. apt., furn., l/r, eik, w/w, 5 min. from Lab & stores, priv. ent., 1 person, nonsmoker, no pets, $490/mo. incl. util. 281-8044.

PATCHOGUE - newly renovated apt., no pets, nonsmoker, quiet residential neighborhood, $650/mo. pays all. 758-1151.

PATCHOGUE VILLAGE - two 1-bdrm. apts., full baths & kitchens, ground floor, priv. ent., walk to town. 289-7902.

ROCKY POINT - 3 bdrm., eik, laundry, fenced yard, new carpets, paint, $795/mo, avail. immed. Don or Sue, 473-6570 after 7 p.m.

ROCKY POINT - 1-bdrm. house w/gar. on priv. hill, quiet neighborhood, lots of storage, 2 blocks from beach; 15 min. to Lab., $700/mo. + util. Steve, Ext. 5567 or Henry, 744-9724.

SOUND BEACH - 2 bdrm., eik, bath, carpet, fenced yard, bsmt., laundry, $695/mo., avail. immed. Don or Sue, 473-6570 after 7 p.m.

SOUND BEACH - apt., large l/r & dining area, full kitchen, bath, separate sleeping alcove, w/w, priv. ent., no pets, nonsmoker, $475/mo. incl. all + cable. Bob, 821-1769.

SOUND BEACH - 4-rm apt., fenced, carpet, cable, 2-car driveway, $650/mo. util. incl. + sec. Frank, 744-6014.

SOUND BEACH - 2-bdrm. apt., bath, l/r, eik, close to shopping & beach, $675/mo. + elec. Ext. 2671 or 744-3284.

TERRYVILLE - 1-bdrm. apt. in quiet residential area, $500/mo. incl. util. 757-1973.

YAPHANK - 4-bdrm. restored Victorian, patio, 5 mi. from Lab., large treed property, avail. Dec. 1. 924-7106 days, or 924-3066 eves.

KEY WEST, FL - April 20-27, sleeps 4, on water, terrace, separate bdrm., kit., w/d, jacuzzi, VCR, pool, gym, priv. beach, boat/water sport rental, walk to town, Tiki Bar. Sheryl, Ext. 5384.

SPRING HILL, FL - winter season avail., 2-bdrm. furn. house, 1½ baths, w/golf course, beaches nearby, 90 mi. west of Orlando, 5 mi. from Gulf, $450/mo. + util. 261-2719 after 5 p.m.

BOQUERON, PR - 2-bdrm. condo, pools, tennis, snorkeling, beautiful beaches, $300/wk, $700/mo. Don or Sue, 473-6570 after 7 p.m..

For Sale

BROOKHAVEN HAMLET - 4-bdrm. Cape Cod, 2 baths, d/r, l/r, eik, 2-car gar., 20' deck, patio, more, close to bay, ¾ acre, red. to $219,000. Ext. 7108 or 286-0271 eves, or Carl, 214-708-2058.

CORAM - Strathmore East, 4-bdrm. ranch, 2 baths, cathedral l/r, 2-car gar., gas heat, fenced corner lot, $120,000. Ext. 3791 or 928-7154 after 7 p.m.

MASTIC - 3-bdrm. T-ranch, den, l/r, d/r, eik, w/skylight, deck, pool, fenced yard, new w/w, new windows, extras, 10 min. to Lab, priced to sell. Ext. 3046 or 2253.

MASTIC - 3-bdrm. ranch, 2-yrs.-old, 2 baths, 100'x100', bsmt., skylight, fenced, all appl., $16,000 cash over existing $100,000 mtg., owner helps w/closing costs. 399-5051.

MOUNT SINAI - 4-bdrm. Colonial, l/r, d/r, den, 2½ baths, 2-car gar., new fence, igp, 0.4 acres, $179,000. 331-3785. 331-3785.

SHOREHAM - N25A, 4-bdrm., 2½ baths, 2-car gar., ⅓ acre, energy efficient, fully fenced, SWR schools, full bsmt., low heat costs, near schools, shopping, $165,000. Rich, 744-0960.

SHOREHAM - 3-4 bdrm. California-style ranch, ½ acre, ig sprinklers, eik, l/r, d/r, 1½ baths, new carpeting, 5 appl., 6 min. to Lab, $154,500. Ext. 2833 or 744-7172.

YAPHANK - Colonial Woods, 3-bdrm. condo, 2½ baths, fin. bsmt., ac, 5 min. to Lab., owner relocating, $105,000. 751-2216.

MARCO ISLAND, FL - 1 week lifetime timeshare in Sunrise Bay Resort, 4 person occupancy, 20 min. from Naples, week starting on Apr. 15, boat & dock use incl, $10,000. 744-6014.

Wanted

BIKE - used mt. bike or 12-spd., good quality for 5'10" male teenager. Ext. 7657 or 298-9560.

REFRIGERATOR & STOVE - 9-11 cu. ft., stove, 24-32 inches. 289-7902.

TRAINS - HO train layout, 4x4 or 4x8, reasonable. Frank, Ext. 2368.

OLD BICYCLES - 1950s or older, American makes preferred, reasonable price. Ext. 4987 or 698-7322.

BELLPORT BAY ICE SCOOTER - to purchase by enthusiast. Keith, Ext. 3385.

PEOPLE TO VISIT TOASTMASTERS - improve public speaking, join the fun, Tues., 5:15 p.m., Brookhaven Center. Margaret, Ext. 3644.

CAR COVER - small. Kathy, 744-2203.

O-TYPE BLOOD OR PLATELETS - pos. or neg. for 6-yr.-old Alisha, leukemia victim, daughter of M. Sussman, need is ongoing. Ext. 4212.

TRAINS - Lionel & American Flyer, priv. collection, pays top $. Bruce, 924-4097.

LAWN MOWERS - old, complete, gas-engine-type only. Dan, Ext. 4987 or 698-7322.

SWEENEY TODD CASSETTE - to borrow. Janet, Ext. 2345 or 929-3910.

CAR - small/midsize, 4-dr., m/t, for college student, VW or Japanese preferred, 82-86. Ext. 3593.

BABY-SITTER - for my 16-mo.-old, every Thurs. eve. & occasional weekends, Rocky Pt. area. Ext. 5257 or 821-0379 eves.

PEOPLE TO VIEW - *Keys to a Loving Relationship*, 6-part video by Dr. G. Smalley, Snyder Conf. Rm., Bldg. 911A, beg. 11/20, noon. Pete, Ext. 3297.

TAP SHOES - girl's size 3, 3½ or 4, reasonably priced. Linda, 331-8181 days, or 744-0722.

WORLD BOOK ENCYCLOPEDIA - fairly recent edition, reasonably priced, no salespeople, please. Linda, 744-0722 eves, or 331-8181 days.