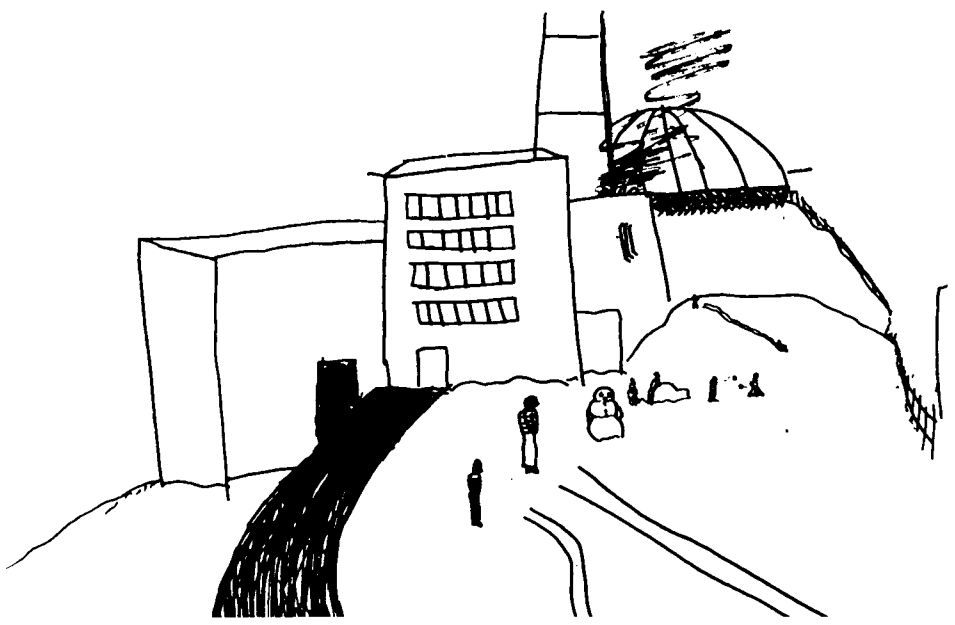
BROOKHAVEN BULLETIN

Vol. 35 - No. 48 December 18, 1981

BROOKHAVEN NATIONAL LABORATORY

Holiday Greetings From BNL Children

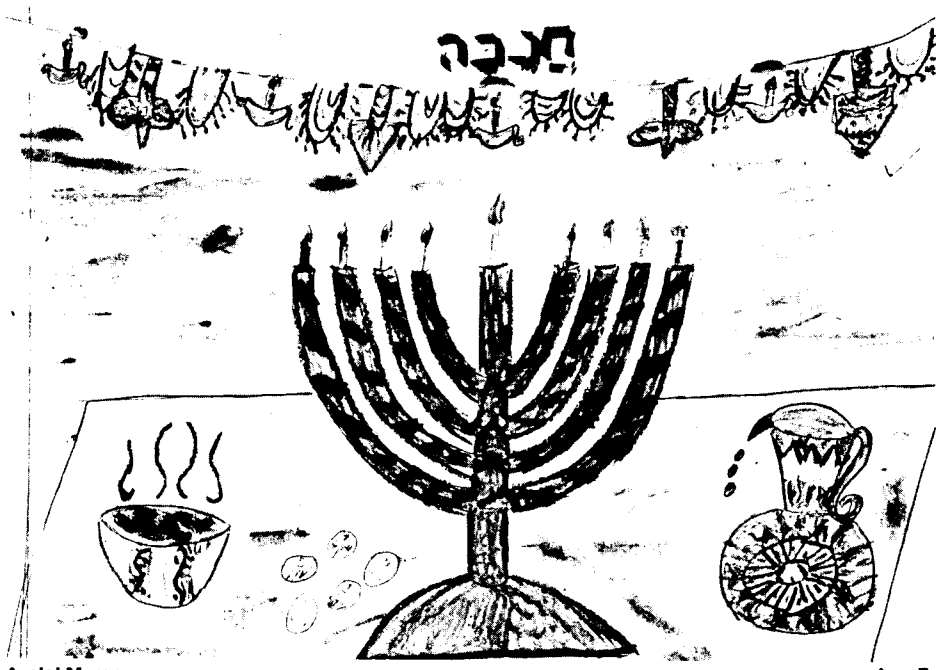
Craig Woods Age 12



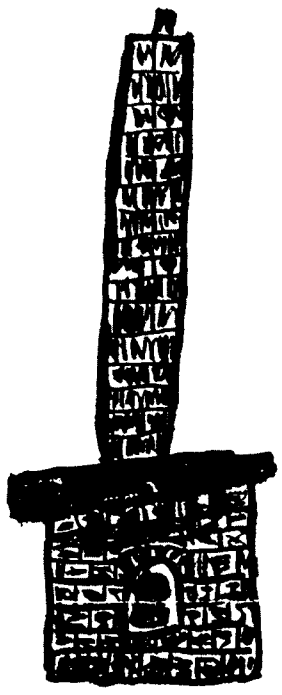
David Zapasek Age 12

Lauren Mouzakes Age 7

Debby Tighe Age 7

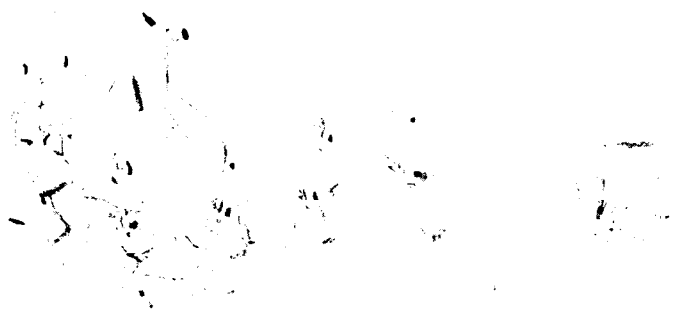


Ayelet Meron Age 7

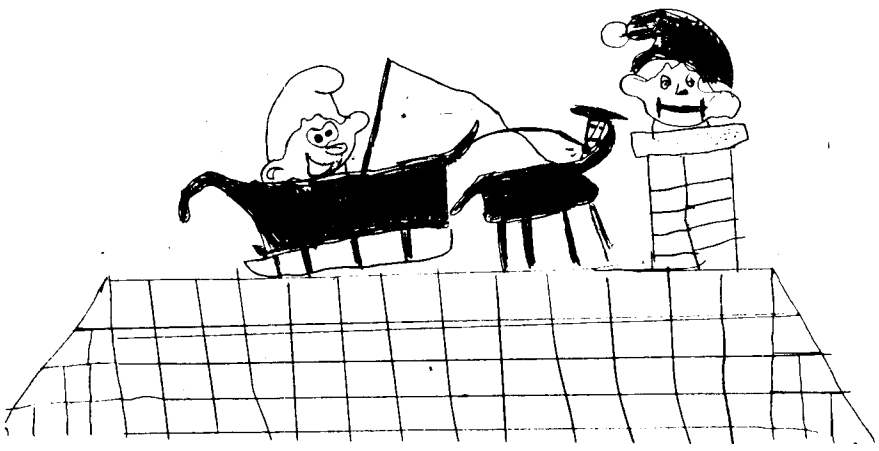


Brian Russo Age 7

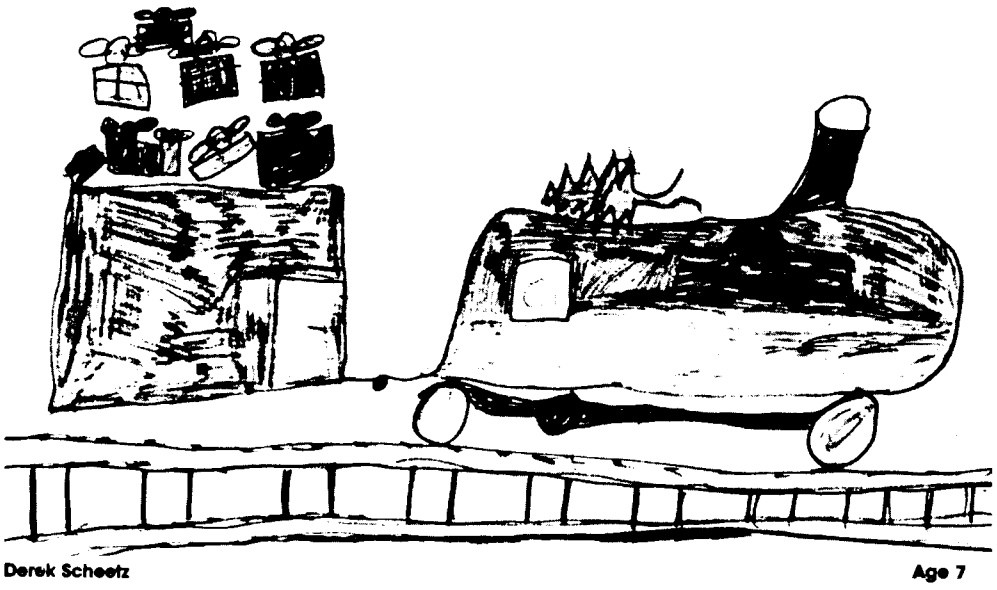
Kelly Tighe Age 12



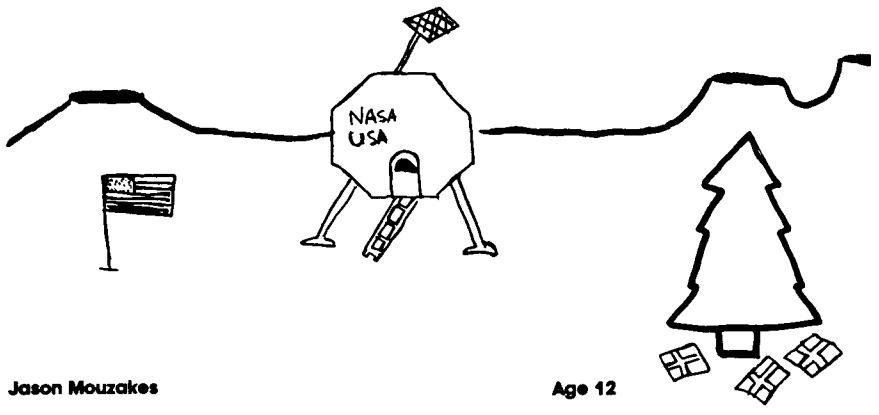
Margaret Li Age 9



Jason Dunn Age 8



Derek Scheetz Age 7



Jason Mouzakes Age 12

Another Success At NSLS

Last week was a period of major accomplishment for the National Synchrotron Light Source. First, a beam of electrons survived multiple turns in the VUV electron storage ring. Less than 24 hours later, synchronized radiofrequency capture was achieved, and subsequent to this, the cycling Booster Synchrotron injector began accumulative charging of the VUV ring. When the ring reached the saturation level prescribed by the present beam lifetime of about two minutes, it had attained a current 20 to 30 times higher than that of the Booster Synchrotron.

Following last August's milestone of limited circulating beam in the VUV ring, NSLS personnel spent several months rebuilding a defective Booster Synchrotron main power supply, upgrading the injector to a 600 MeV ejection energy level, and working on the X-ray storage ring systems. When the Booster-VUV system was again turned on, multiple turn survival in the VUV ring was somewhat elusive for a while. The commissioning process was made significantly more difficult by the inability of the beam position monitoring system and standard current monitors to detect the early turns during the "noisy" period caused by turning off the fast injection kicker magnets.

To solve these problems, a sequence of periods of around-the-clock machine studies was scheduled. This resulted in a narrowing down of the details of the beam transfer in the VUV ring and its limited number of turns trajectory. The fine structure of the magnet ring field distribution was also reexamined, leading to a minor modification of the ring excitation parameters. These efforts all came together early last Friday morning with the successes noted above.

For the VUV ring, the next step is to refine and substantiate the machine parameters, remove the provisional aperture limiting beam monitors and restore ring pressure to its original 10^{-9} Torr pressure. That should increase the present lifetime limited current saturation level of about 10 mA circulating beam by an order of magnitude.

With these recent accomplishments, part of the focus at the NSLS can now be shifted back to the further commissioning of the X-ray storage ring system. The next planned step is to resume machine studies of beam transfer into that storage ring.

Cancer Study Finds No Excess Risk At BNL

Are employees at BNL subject to an excess risk of cancer? No, according to results of a 1980 study of Laboratory records by John Baum, head of the Research Section, Safety and Environmental Protection Division.

In fact, national statistics for cancer, heart disease, and other diseases, make it appear that smoking is probably the largest identifiable source of health hazard on site.

This ongoing mortality study was stimulated by controversial findings at other nuclear facilities and is summarized now due to recent employee questions in this area. Insurance records and the radiation exposure records for 290 BNL employees who died between January, 1948, and April, 1979, were reviewed. The observed number of cancer deaths among this group was compared with the expected number calculated from age-adjusted rates for all of Suffolk County. Sixty-eight cancer deaths were recorded, which is essentially what was expected (68.3). Also, 23% of all deaths were due to cancer; 23.6% was expected based on Suffolk County age-adjusted rates.

Specific types of cancer which have been associated with radiation exposure in other investigations were also studied. These included lung cancer, pancreatic cancer, multiple myeloma, and leukemia. None of these were found in unusual numbers.

The study revealed that fewer cases of lung cancer mortality occurred than would have been expected from Suffolk County rates (18 observed vs. 20 expected). The study also revealed that the 16 men who died of lung cancer had higher than average (but still only a few percent of allowable), radiation dose. In order to assess the importance of this relative to other factors, smoking habits of these cases were recently examined. All cases had been either smokers or former smokers.

From the assumption that they smoked an average of one pack of cigarettes per day, and knowing their known radiation dose, Baum calculated the relative probability that their lung cancer was due to smoking, radiation, or to other "natural" causes. The results showed that on the average, their risk was 90 times greater from smoking than from radiation exposure. It appears that sixteen of the 18 observed cases of lung cancer probably would not have occurred, had those affected been nonsmokers. The remaining two cases were attributable to natural causes. Radiation contributed only one percent to the total probability.

Goldhaber Wins Award

Maurice Goldhaber, AUI Distinguished Scientist and former Laboratory Director, has been selected as a co-recipient of the 1982 J. Robert Oppenheimer Memorial Prize. He shares the award with Robert Marshak, Distinguished Professor of Physics at Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

The prize is awarded by the Center for Theoretical Studies, in Coral Gables, Florida. Given annually since 1969, it consists of a medal, citation and cash award.

The purpose of the prize is to recognize outstanding contributions to the theoretical natural sciences (physics, chemistry, biology), mathematics, and the philosophy of science. While there are no stipulations as to the age of the recipient, it is intended that particular attention be paid to original research done by men young enough to continue to pursue their inquiries and perhaps to exceed the contribution for which they are rewarded.

Dr. Goldhaber was cited for his contributions to various fields of physics, in particular to elementary particle physics. He will receive the award during a ceremony at the Center next month.

Doug Humphrey

Sitting at the hearth in the Brookhaven House is Sharon Zuhoski, secretary in DEE's Architectural and Building Systems Division, managers of the project.

House Watch

Even though winter doesn't officially begin until December 22, most of us have already turned on the heat in our houses and grudgingly paid the season's first fuel bill. This winter, we will again cast envious eyes at the Brookhaven House soaking up free solar heat.

Researchers on the project have completed a year of monitoring the house's performance. It has done so well that the federal Department of Housing and Urban Development has decided to make the design generally available by distributing the blueprints at cost. Those who build new houses in the future will have the option of building their own Brookhaven House or at least incorporating some of its energy-conserving features.

As reported in the Bulletin last winter, the house, although heated electrically, would have used only about 170 gallons of oil to assist the solar heat in keeping the indoor temperature at a reasonable 68° F.

Now the summer data have been analyzed, and BNL architect and principal investigator on the project, Ralph Jones, says the house is as cool in the summer as it is cozy in the winter. With an awning pulled over the Trombe wall, shades drawn in the greenhouse, and open casement windows scooping in air for good cross ventilation, interior living areas of the Brookhaven House stayed under 80° F all summer.

A big factor in keeping the house cool in the summer, says Jones, is the same masonry that keeps it warm in the winter. No matter what the season, every day when the first rays of sunshine hit the south side of the house, the masonry starts to heat up. About four to five hours later, the heat finally makes it through to the inside wall. In the wintertime, that heat keeps the house warm through most of the night. In the summertime, the heat comes through at a cooler hour of the day, when the house can be easily vented by opening strategic windows. The four to five hour time lag does the trick in both seasons.

Now that the basic success story is written, more detailed studies are planned for the second year of testing. For example, this coming winter the auxiliary heating system will have night time set back temperatures. Last winter, the thermostat was kept at a constant 68° F, because it was important to see how the thermal mass worked in a steady state.

Jones also wonders how the house would do if an energy-conscious family were living *with* it — a family that would at strategic times of day open and close doors, operate fans, pull shades and awnings, and properly operate the wood stove. Since research personnel frequently go to the house to check monitoring equipment and make measurements, this group will probably take on some of the tasks that a live-in family would do. As well as the house has performed in its first year, Jones feels it can do better if it's "tuned up."

Another study planned for next year will measure indoor air pollution. As Jones explains, the tighter a house, the more one should worry about the quality of indoor air.

The Brookhaven House is a model of tightness, with six inches of batt insulation in the walls, twelve inches in the ceiling, and one inch of rigid foam sheathing all around. A vapor barrier, triple glazed windows and electricity running in external raceways all add to the energy conservation.

In a preliminary test done by Russell Dietz, a BNL chemical engineer, the house had an air exchange rate of about once every five hours. Dietz made the same test on his own house, built in energy-cheaper 1972 with three and a half inches of insulation in the walls and ceilings, and found its rate of exchange to be once every three hours. For that one test, the Brookhaven House performed 40 percent better, which means, however, that whatever is unhealthy inside stays inside longer.

Fortunately, the house was designed with tightness in mind. Common sources of indoor air pollution were avoided to begin with. The kitchen has an electric stove instead of a gas stove, and no garage is attached to the house, eliminating potential problems with carbon monoxide and nitrogen oxides. Also, no urea formaldehyde foam insulation was used.

Still, in another preliminary test made by Gunnar Senum in Dietz' group, the formaldehyde level was just below the limit set by the U.S. Environmental Protection Agency. How come? Formaldehyde is used to make adhesives, which in turn are used to make plywood and cabinetry, common elements of a house. Jones says the whole field of indoor pollution is new and something to worry about now that houses are so tight.

CREF Values

November	53.19	December	51.77
January	50.20	February	51.21
March	52.85	April	52.39
May	52.56	June	51.94
July	51.19	August	48.26
September	$45.89	October	47.61

November $49.61

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Holiday Greetings From BNL Children

Drawings contributed by children of BNL employees are once more gracing our front page. The Bulletin would like to thank all the children for their creations. We are sorry that we could only print a portion of those submitted because our space is limited.

Besides those named on the front page, children who sent in their drawings were Darren Dunn, John Dunning III, Brendan Edwards, Nancy Edwards, Fran Lehecka, Laurie Machnowski, Julie Morrison, Diane Pinelli, Michael Quog, Atticus Rowe, Darren Scheetz, Arielle Schwartz, and Julien Shapiro.

If the parents of the young artists will stop by the Bulletin office, 35 Brookhaven Ave., we have a small treat for the children.

Public Sale — Motor Vehicles

Forty vehicles, located at Warehouse T-87, will be available for public sale.

Inspection will be permitted from January 11 through January 15, during the hours of 9 a.m. to 4 p.m., except Saturday and Sunday.

Bids will be opened on January 26, 1982, at General Services Administration, Business Service Center Bid Room, 26 Federal Plaza, New York, N.Y.

This will be an informal competitive bidding. Bid forms may be obtained at Buildings 87 and 211 after the first of the year. For further details, please call Extensions 2302 or 2977.

Holiday Food Service

The Vended Food Service in Building 912 will be open at all times, and will be serviced regularly throughout the Christmas and New Year's Holidays.

The Cafeteria will close at 2 p.m. on Thursday, December 24 and resume normal operations at 7:30 a.m. Monday, January 4. During that period, Snack Bar Service will be available from 9 a.m. until 2 p.m. every day except Christmas and New Year's Day.

The Center Club Snack and Beverage Bar will be closed on Thursday, December 24 through Saturday, January 2, reopening at 5 p.m. on Sunday, January 3.

The Coffee Truck will not make its rounds on Thursday, December 24, due to the half holiday.

Bulletin On Vacation

Because of the Christmas holidays and the one-week Lab shutdown, the Bulletin will not be published for two weeks. The next issue will appear on January 8. Ads for that issue should be received in the Bulletin office by noon, December 24.

Stay Home

Every employee has a vacation the last week in December and the administration expects that everyone will stay home. However, there have been some mutterings about coming in because it would be quiet and a good time to get work done.

To do this would defeat the purpose of the shutdown When you leave on December 24, thermostats are to be turned back to 55° and all lights turned off. To come in a few days later and turn everything back on will not be appreciated.

During that week only essential services will be maintained. There will be no custodial or building trades personnel on site; no deliveries of mail, gases or dry ice; the cafeteria will be closed, and only snack bar service will be available.

So catch up on your reading, finish some jobs around the house, or do whatever pleases you. Just stay away from the office. To do otherwise would be counterproductive.

A New High For United Way

BNL employees have always given generously to the United Way and 1981 was no exception. At the close of this year's campaign, chairman Betty Pergan reported that 856 people had contributed $49,113.60 - the highest total ever. Pergan, who had hoped that figure would reach the established goal of $50,000, said "I'm still trying. If people still want to give, I'm still willing to accept their pledge for the United Way."

Whether or not that goal is attained, this year's efforts were exceptional. Although 219 fewer people gave in 1981, the final total was a $1,541 increase over the 1980 donation. Those who gave included not only present employees of the Laboratory, but also retirees and non-Lab employees working at BNL. Pergan said, "I want to thank all the people who donated, as well as my department coordinators and their helpers. Every single one was super."

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, December 30. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $3.50, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than Tuesday, December 22. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by December 22.

Service Awards

The following employees will receive service awards during the month of December.

Twenty Five Years

William Walker	Accelerator
Francis Salzano	Energy & Env.
Jonathan Hughes	Energy & Env.
Herbert Lutz	Accelerator
Frank Rizzo	Instrumentation
Franklin Langdon	Physics
Edward Zeidler	Instrumentation

Twenty Years

George Stenby, Jr.	Accelerator
William Casswell	Accelerator
Edward Schwaner	Accelerator
Irma Carl	Director's Office
Joseph Hendrie	Director's Office

Ten Years

Elinor Adams	AUI

Richard McKenzie at his post.

The Man At The ISA Gate

Every workday, Richard McKenzie checks into a 6-by-6-foot cubicle, hoists an American flag, and flips on WHLI AM for his favorite music of the 30's and 40's. As the day goes on, he waves past his one-man booth about a hundred cars, vans and delivery trucks, stopping unfamiliar faces to check them against IDs in his file. Frequently, he has to diplomatically fend off sight-seers and salesmen.

McKenzie is the security guard at the entrance to the ISABELLE construction site. He's been doing this routine for the past two years, shortly after construction began. The ISABELLE construction crew sees him every day, but the rest of the Lab never does. He can't leave his post for lunch in the cafeteria or even a quick trip to Public Relations to drop off a classified ad for the Bulletin.

Lunch comes out of a brown bag from home, and he makes afternoon tea on a hot plate. Without indoor plumbing, he's supplied with an outhouse and a rain barrel for washing up.

With winter setting in, he has a space heater turned on in his cubicle, but he regularly leaves its warmth to stretch his legs and replenish bird feeders he's set out for the winter season. He also takes occasional rides on his vintage '39 bicycle, going as far away as a telephone ring can be heard, but mostly pedaling circles around his little booth.

Ask McKenzie if he likes his solitary job, and he replies with a bit of historical perspective: "I joined the Lab on December 19, 1949, as a Patrol Officer, and I did almost 30 years of shift work. When this job opened up, I had seniority, so I grabbed it! It was the only way to circumnavigate the rotation business."

Now his hours are long but regular, Monday through Friday, daylight schedule. Recently, McKenzie, a widower for two years, married Lab employee Viola Nuara. Beaming like the newlywed he is, McKenzie says those weekends off are even more special now.

New Investment Options

Two new investment options will be available in 1982 to help BNL employees prepare for retirement.

Salary Reduction Alternative (SRA)

Effective in February, employees will have an additional investment option under the AUI retirement program. In addition to TIAA-CREF employees can choose mutual funds as investment options for voluntary employee tax-deferred contributions. Following the guidelines that mutual funds chosen for this SRA must qualify as custodial accounts under Section 403 (b) (7) of the IRS code, an AUI investment committee selected five T. Rowe Price and 12 Fidelity Group mutual funds. These include equity funds, balanced funds, money market funds and income funds. Under the new plan, employees can also

- elect other mutual funds, providing those funds qualify and proper procedures are followed.
- make a non-taxable transfer of accumulated amounts in other TIAA-CREF SRA contracts to the selected mutual funds.

Employees will receive complete details about this plan in January through a distribution by the Personnel Division, as well as a series of information meetings.

Individual Retirement Account (IRA)

Under the recently passed Economic Recovery Tax Act starting in 1982, employees who participate in their employer's retirement plan will also be able to deduct voluntary contributions to an IRA. Deductions for an employee's IRA are limited to $2,000 or 100% of compensation, but if a non-working spouse is included, the limit is $2,250.

Following are some other facts pertinent to the IRA:

- Employees who were maximum tax sheltering under the AUI retirement plan can also have an IRA.
- Employees interested in investing in an IRA must make their own arrangements with a bank, mutual fund, insurance company, etc.

Any questions about these options should be referred to Bernard McAlary, Ext. 2494.

BERA Sales Office

The BERA Sales Office in Berkner Hall (Ext. 3347) is open Monday through Friday between 9 a.m. and 1 p.m.

In addition to photographic supplies and assorted greeting cards normally stocked throughout the year, the store now has a special holiday sales offering of moderately priced Christmas cards and eye-catching gift wrappings.

For special people on your holiday shopping list, why not consider giving tickets for an Islanders hockey game, or an evening at the Metropolitan Opera? You can buy these tickets at the store and save yourself the aggravation of ordering by mail or waiting on line at a Ticketron Center.

Westbury Ticket Service

The management of Westbury Music Fair regretfully announced that due to difficulties in handling orders in the ticket office, the Industrial Sales Program has been discontinued until further notice.

In Stormy Weather

The following radio stations will announce Laboratory closings and delayed openings in the event of storm conditions.

Station	Area	AM	FM
WALK	Patchogue	1370	97.5
WBAB	Babylon	1440	102.3
WBLI	Patchogue	——	106.1
WLIX	East Islip	540	——
WGLI	Babylon	1290	——
WGSM	Melville	74	——
WHLI	Hempstead	1100	98.3
WLNG	Sag Harbor	1600	——
WRCN	Riverhead	——	103.9
WRIV	Riverhead	1390	——
WSBH	Southampton	——	95.3

Arrivals & Departures

Arrivals

None

Departures

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

Richard W. Griffith ..... Energy & Env.
Mitchell D. Hirsch ..... Energy & Env.
Bruce A. Martin ..... Applied Math

Camera Club

The next meeting of the Camera Club is scheduled for Thursday, January 7 at 5:30 p.m. in the Recreation Building. On the agenda will be the election of officers for 1982 and discussion of upcoming events. The first event, on January 13, is a competition among Suffolk County camera clubs. To qualify, a club must submit a minimum of 20 entries, but each member can only contribute a maximum of two. Entry categories include color slides, color prints, and black and white prints (advanced and beginner/intermediate). Also to be discussed are details of the Long Island Sled Dog Racing Association photo outing and picture contest scheduled for January 30-31.

Casting Call

The BNL Theater Group's spring production will be "The Play's The Thing" by Ferenc Molnar.

The cast requires eight men of various ages, and one young prima donna. Casting auditions will be held in Berkner Hall auditorium at 7:30 p.m. on Tuesday, January 12 and Thursday, January 14. Connie Fuchel will direct, but a full production staff is also required. Persons interested in any aspect of the production are invited to attend the auditions or to contact Karl Swyler, Ext. 7171.

Contest Reminder

The Art Committee is holding a contest to select logos for the second annual BERA Member Craft Exhibit in mid-February. Two separate logos will be chosen, one for the poster and one for the catalogue. Entries for both should not be larger than $8^1/_2$" × $5^1/_2$". (Note that the dimensions have been changed from those previously announced in the Bulletin). All submissions should be designed to reflect the nature of the exhibit.

The deadline for entries is January 8, 1982. They should be submitted to the BERA Film Service Office in Berkner Hall. For more information, contact Becky Bishop, Ext. 4386.

Volleyball

Standings as of 12/14/81

A Division	
Dinkers	3-0
Mixed Ups	2-1
Teddybares	2-1
Nuts & Bolts	1-2
High Society	1-2
Las Bolas	0-3
B Division	
Semi Tough	5-1
Puff & Stuff	4-2
TNT	4-2
Quirks	2-4
Big Boopers	2-4
KMA	1-5

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

There is currently a freeze on open requisitions, however, certain positions must be filled. The Director's Office has individually approved the filling of the following position.

LABORATORY RECRUITMENT: Opportunities for present Laboratory employees.

1642. COMPUTER MAINTENANCE TECHNICIAN - Requires demonstrated experience in computer maintenance, including digital peripherals and DEC UNIBUS. Experience with any DEC-CPU and/or Massbus is desirable. Requires the ability to work shifts (10 hours a day, 4 day shifts). In addition there may be the possibility of rotation of shifts. Applied Mathematics Department.

1643. PROJECT ENGINEER - Requires BSEE or equivalent background. Will design and maintain reactor instrumentation systems, and prepare review packages (e.g., for safety and quality assurance) for modifications. Must be able to obtain or have a current "Q" security clearance. Reactor Division.

Auto & Auto Supplies

AUTOMATIC TRANSMISSION - Chevy 350, Turbo Hydra-matic. Lou, Ext. 4087.

77 AMC PACER - sta. wgn, 6 cyl, a/t, excel cond, many extras. $2,300. 282-2070 days or 283-0223.

SNOW TIRES - pair of C78-14, almost new, mounted & balanced on Ford rims. $45/pr. Carl, Ext. 4420.

48 WILLY's CJ2A - excel cond, runs good, blue, chrome wheels, 11x15. Asking $2,000. 732-2249.

TIRES - new steel belted radial w/w Goodrich, 4 for $120. Sz. 155-SR13 John, Ext. 5152.

SNOW TIRE - GR78-15, Delta Dura steel w/w, like new. $25. 744-1429.

74 PINTO WAGON - standard. $800. Ext. 7587.

67 BONNEVILLE - good cond, p/s, p/b, p/w, $500. 924-6051 after 6 p.m.

77 LONG BED - Pick up truck, SR5, Toyota w/cap, excel cond. Ext. 5201 or 475-5789 after 6 p.m.

TIRES - L60-14 for Chevy w/rims, $40/pr. Ext. 3533.

69 CAMARO - 6 cyl. engine complete, runs good, need room in shop. $50. 698-7322.

76 VW RABBIT - excel cond, std. trans, good MPG. Carol, Ext. 3653 or 331-1847 eves.

SNOW TIRES - 800 16. SLT, Kelly Springfield, good cond. 2 tires for $10. Lowenstein, Ext. 4611.

70 KARMANN GHIA - 84,000 mi, rebuilt engine, new shocks, new radials, mag wheels, stereo. Sheryl, Ext. 5174.

BATTERIES - Auto, Marine, Industrial. For foreign, domestic. Joe, Ext. 7636 or 924-6971

VW CLASSIC - completely restored, rebuilt engine, new tires, FM stereo, a/t, excel cond. & MPG. Russ, 325-0563.

72 DUSTER - 3 spd, floor shift, 6 cyl, high mi., dependable. $600. Jim, Ext. 7669.

SHOP MANUAL - '72-'79 Fiat 128, $7; shop manual for '78 Datsun F-10, $10; also, Jack & handle, $10; new tire & rim, $30. John, Ext. 3292 or 286-1348.

72 AMC HORNET - 4 dr. sedan, new transmission, very reliable. $200. Steve, 924-4826.

MOTORCYCLE - Honda Hawk, almost new. Asking $1,100. 588-0805 eves.

ALL TERRAIN - tire & rim, 8 lug rim, Concord Deserter. 11-15 LT, $25. 475-2998.

6' SNOW PLOW - $75; 4 HP snowmobile, $100. 589-9103 eves.

81 MERCURY COUGAR - 6 cyl, 4 dr, cruise control, a/t, ac, p/s, p/b, r/d, am/fm stereo, good gas mi. $6,200. Joe, Ext. 3372 or 929-6495.

73 OLDS - good running cond, excel inside, full power, asking $1,200 Ext. 4835 or 289-9811 after 6 p.m.

75 OLDS - Cutlass Supreme Spt. Cpe, auto 260 V8, stereo cassette, swivel front seat, powder blue/white interior, immaculate. Asking $3,000. Ext. 3381 or 286-1024.

76 CHEVY - G-10 window van, 6 cyl, stick, p/s, carpeted 79K miles, good cond. $2,500. Firm. 757-5478.

SNOW TIRES - (2) 5.60x15, Bias ply, used, mounted on 5 hole VW rims. $20. Tony, Ext. 3293 noons or after 5 p.m.

73 PONTIAC - Sta. wgn, good, 3 spd, 6 cyl, new clutch. $500. 698-7428.

SNOW TIRES - steel belted radial w/w P165x80, R13 on rims (new) Ext. 5201.

78 RABBIT - 2 dr, sunroof, snows, 4 spd., 40,000 mi. $4,000. Ext. 4309 or 282-3028.

PIONEER AD-50 - car amplifier equalizer, 50 watts x 2 channel. Lists for $200, asking $125 firm. 744-8063

Boats & Marine Supplies

16' CACCI CRAFT - 50 HP engine, Cox trailer all 1974, all excel, w/extras. Asking $1,800. Lenny, 722-3580 after 5 p.m.

1958 32' CHRISCRAFT - Sea Skiff twin 287 Chevys FWC, sleeps 6, camper canvas. $3,500. AT6-8476.

18' GARVEY - 40 HP (1973) Johnson outboard, good cond. $800. for both. John, Ext. 3292 or 286-1348.

16' ALUMINUM - Fisherman's Open Boat, 40 HP elec. start outboard & mfg. trailer. $900. 924-6751 eves.

16' MIRRO CRAFT - 35 hp Chrysler electric start, galvanized trailer. $2,200. Ext. 4309 or 282-3028.

Yard Sale

MOVING SALE - Final week, Dec. 19 & 20, 10 to 4 p.m. 227 Floyd Rd. Shirley. Everything must go. 399-2286.

Free

MALE RETRIEVER - mutt, 4 yrs. old, needs good, loving home. Neutered, trained, healthy. Bill, Ext. 2826.

DOBERMAN - female, 15 months old, AKC Reg. Looking for good home. 924-9212 after 7 p.m.

Miscellaneous

POINSETTIA - many sizes. Ext. 4612.

BASF BLANK CASSETTE TAPES - Pro I, II & III, C-90. $2.75 ea. Great for Christmas. Ext. 2521 or 928-8379 eves.

TYPEWRITER - portable w/carrying case, used very little, W. Germany Mfg. (Cole-Steel), good cond. $45. Ext. 2492 or 475-8658 after 7 p.m.

CAMERA BAG - for a great Christmas gift. Brochure available. 727-4884 eves.

CAMERAS - Kodak Instamatic #104, $5; Instamatic #30, $10; men's hockey skates, size 9. $6. Irv Meyer, 929-4326.

OMEGA SPEEDMASTER CHRONOGRAPH - "The Moon Watch," one year warranty. $100. Peter, Ext. 4272 or 698-3822 eves.

AQUARIUM - 20 gal. complete set up. $35. Rich, Ext. 4482 or 277-1129.

OSTER - "Mist Set" curling wand, hardly used, light green fill bottle incl. Ext. 2950.

FOLDING BED - $20; men's new ice skates, size 11, $15; men's roller skates, size 11, $15. Ext. 4113 or 289-0753.

UNICEF - 1981 Christmas cards, gifts & stationery. For catalog & order, please call Ext. 4959.

QUARTZ HEATER - 1500 watts, dual control, used only one season, paid $55; asking $30. Linda, Ext. 3632.

PORTABLE TYPEWRITER - manual Olympia International, excel cond., practically new. $50. Ext. 2043.

GE - 4 burner counter top/hood oven w/clock & timer, avocado, perfect cond. $200 takes all. Ext. 2964.

TICKETS - (2) Opera at the Met, "Tannhauser," Friday, Jan. 8, Grand Tier, $35 ea. Joe, Ext. 4069 or 261-7825.

DESK - 28"x54", five drawer, wooden. $70. Ext. 4748.

CABINETS - used wall & floor kitchen cabinets. $5 -$15 per unit. U-Pick up. Nick, Ext. 2490.

CHRISTMAS TREES - live blue/green spruce, 4-14 ft. Cut while you wait or cut your own. Brookhaven Hamlet. Jim, 289-0876 or 286-0024.

HOBBY HORSE - large, excel cond. $40. Ext. 4312 or 744-6628.

CHESS SET - hand carved onyx, inlaid board, $39 & $49; ping pong table & racket set, $40. Gil, Ext. 7751.

SKATE LIKE ERIC HAYDEN! - racing skates, like new. $65. Nice Christmas present. Ext. 4475.

SKI BOOTS - Munari, buckle type, size 5½, like new. 744-7734.

COAL - 3 tons, not anthracite, Setauket area. $100/ton. 751-7096.

SEARS - Go Cart, 3 hp, good cond. $175. 744-9812 after 6 p.m.

EXERCYCLE - 16" & 20", hi-rise bikes, $35 & $45; office manual typewriter; oak upright piano. 581-6432 after 6 p.m.

FURNITURE - household goods, etc. 289-8182 after 5 p.m. or wkends.

CORNINGWARE - 10" fry pan; electric serving tray; drapery rods (3) 48"-84", space heater, all brand new; used toys, excel cond. S. Spark, Ext. 4111.

DISHES - (2) partial sets, service for 8; Pfaltzgraf stoneware, $15 for both; bed spread, king size w/matching curtains, small repairs necessary. $8. Ext. 2040.

FREEZER - old, but OK, upright med. size, $100; elec. kit. range, Caloric, good cond., $50; refrig., avg. size, good cond., $100. 924-6751 eves.

WOOD BURNING STOVE - Efel fireview w/coal grate, extra glass, excel cond. $295. John, Ext. 4255 or 929-4450.

WOOD BURNING STOVE - new, never fired, Franklin cast products, Erik 809. 25"x26"x33", 461 lbs. $295. Ext. 4863.

COAL STOVE - Haas & Sohn, 38,000 BTU, used only 3 wks. Best offer over $575. Al, Ext. 2072 or 929-8411.

BIKE - men's Raleigh 10 spd, excel cond., less than ½ price, $95 firm; ladies Raleigh 3 spd Sturmey Archer bike, excel cond., less than ½ price, $95 firm. 727-3608 after 5 p.m.

ORGAN - bikes; dishes - 53 pcs.; camera; screen; punchbowl; stroller; xylophone; belt massager; oars; 3 ft. yews; tennis racket. 924-3755.

TV GAME - Magnavox Odyssey 300, excel cond. $20. 732-5829.

STOVE PIPE - elbow 8" triple wall, 30° off set, 2 pc. Sears, new, $20; dog bed, new, ½ price, 8"x20"x27", $12; jacket, Macy's men's leather works, size 46, brown 2 mos. old, cost $175, asking $100; ladies car coat, 14-16, fur collar. $35. 589-1069.

RECORD PLAYER - GE, attached speakers, $15; boy's 3 piece blue suit, size 12. $15. 475-2998.

FIREWOOD - seasoned oak, 8'x4'x16"-18". $55. 924-3236.

HOCKEY SKATES - Bauer, size 5, $15; boy's 5 spd bike, $35; boy's ice skates, sizes 5-6-7, $5 ea. 475-2998.

BICYCLE - 14" w/training wheels, like new, $30; big wheels, $7; tricycle, $6; violin 1/10 Suzuki, $10, GE air conditioner, portable, excel cond, $100; meat slicer, $20. 821-9346.

XC SKI SETS - men's 205cm wood, 10 shoe; ladies 185cm wood, size 7 shoe. Each $65. Rau, Ext. 5384 or 286-0451.

LIVING ROOM SOFA - love seat, chair, ottoman, Colonial style. $300 or best offer. 744-4595.

PROJECTOR BULBS - (10) CAL 300 W, 4-pin base, $3 ea.; (14) CWD 300 W, 4-pin base, $3 ea.; (1) CZA/CZB, 500 W, 4-pin base, $5; all bulbs new, factory packed, retail for over $15 ea. H. Sauter, Ext. 3783.

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 - 3 bdrm house, wood/coal stove, 2 baths, taxes $1,200/yr. deeded beach rights on Peconic Bay. $70,000. 298-4398.

WADING RIVER - adjacent to Wildwood Park & priv. beach. Older brick home, beautifully renovated, oak floors, contains private apt. $250-300/mo. Large wooded lot, low taxes, nice neighborhood. $58,000. 929-4180 before 10 p.m.

For Rent

E. PATCHOGUE - Durkee Lane, available Jan. 1st., 3 bdrm ranch, near bay, screened porch, all appliances. $375/mo. + util. Security. 734-6633 or 451-4300.

POCONO'S CHALET - in priv. community, ski Tanglewood, indoor pool, plan winter wkend now. 12% Lab employee discount. Bob, Ext. 4551 or 289-2159.

MIDDLE ISLAND - Townhouse Condo, Coventry Manor, 7 rooms & 2 baths, excel cond., woodstove, all appliances, garage, w/w, cathedral ceiling. Pool, tennis, clubhouse available. $500/mo. 924-8225 anytime.

E. SETAUKET - 1 bdrm, l/r, dining, kitchen, modern, new furnished apt. Immediate occupancy. 331-9349.

Wanted

MATURE WOMAN - to care for 3 young children, our home, 2-3 days/wk. Prefer own transp. Ext. 3578 or 878-4864.

ANYONE INTERESTED - in Modeling? If you think you have it, call me. Ripp, 286-1877, 6-7 p.m.

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

FABRIC SCRAPS - from sewing projects. Free or very reasonable for crafts woman. 928-1068.

SNOW SHOES - any cond. Annmarie, Ext. 3139 or 585-5256.

CARPET REMNANTS - for animal shelters. Please call Lois, Ext. 2959 or 928-9537.

GUITAR INSTRUCTOR - to teach beginning teenage girl at home, E. Moriches area. June, Ext. 2878 or 878-2040 after 6 p.m.

HOME - for 3 yr. old male dog, good w/children. 281-8306.

POST HOLE AUGER - or other posthole digging device. Bernstein, Ext. 4379 or 286-1339.

ICE & ROLLER SKATES - girl's & boy's size 5. Liz, Ext. 2082 or 286-8563.

FEMALE HOUSEMATE - to share 2 bdrm Condo in Holtsville, 5 appliances. $225/mo. incl. all. Ext. 3199 or 475-6622.

SKIERS - interested in skiing Gore Mt., Feb. 5-7. Call Sue Norton, Ext. 2050 for info.

ZOOM LENS - for a Canon AE1. 929-8642.

INDIVIDUALS - to join weight control compulsive eaters group. Individual counseling available. Lois, Ext. 2959 or 286-8720.

BRICKS - common red, used, mortar-free. Any amount up to 800. Ext. 2740.

Car Pools

BABYLON/W. ISLIP - driver needed for 4 person carpool. Ext. 2493.

SOUTHAMPTON AREA - existing "solid" carpool seeking one new member. Ext. 2070.

WADING RIVER/CLIFF RD. AREA - wanted to join or form car pool. Fred, Ext. 2946.

Lost & Found

LOST PUP - Bert, 5 mo. old black Lab with white chest. Last seen on Hulse Landing Rd. in Wading River. Reward. 929-4186, or Ext. 3457.

Services

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

HOUSEPAINTING - interior/exterior, professional, quality materials, insured. Bob, 289-7657 after 6 p.m.

ENERGY CO-OP HEATING OIL - group purchasing plan, $1.164/gallon, $59.95 for service. Automatic delivery, budget plan available. For info 360-3989.

RESUMES professionally prepared, typed, printed. Discount to BNL employees. Bill Polvent, 821-9081.

RUBBER STAMPS - plastic laminating, presure sensitive tapes and labels, desk, nameplate badge engraving. 286-3377 after 6 p.m.

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

SKI DAY - Trip, Catamount, New Hampshire, $35. Jan. 9, 1982, bus from Kings Park. David, 757-5478.

HOME IMPROVEMENTS - carpentry, roofing, masonry, complete int. and ext. painting and plumbing. 281-0360 for estimates.

HAND DECORATED - homemade Gingerbread, chocolate houses & candies. Joe, Ext. 7636 or 924-6971.