BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Leaving the Lab — After 35 Years or More

Accelerator Physicist Focuses on Retirement Projects

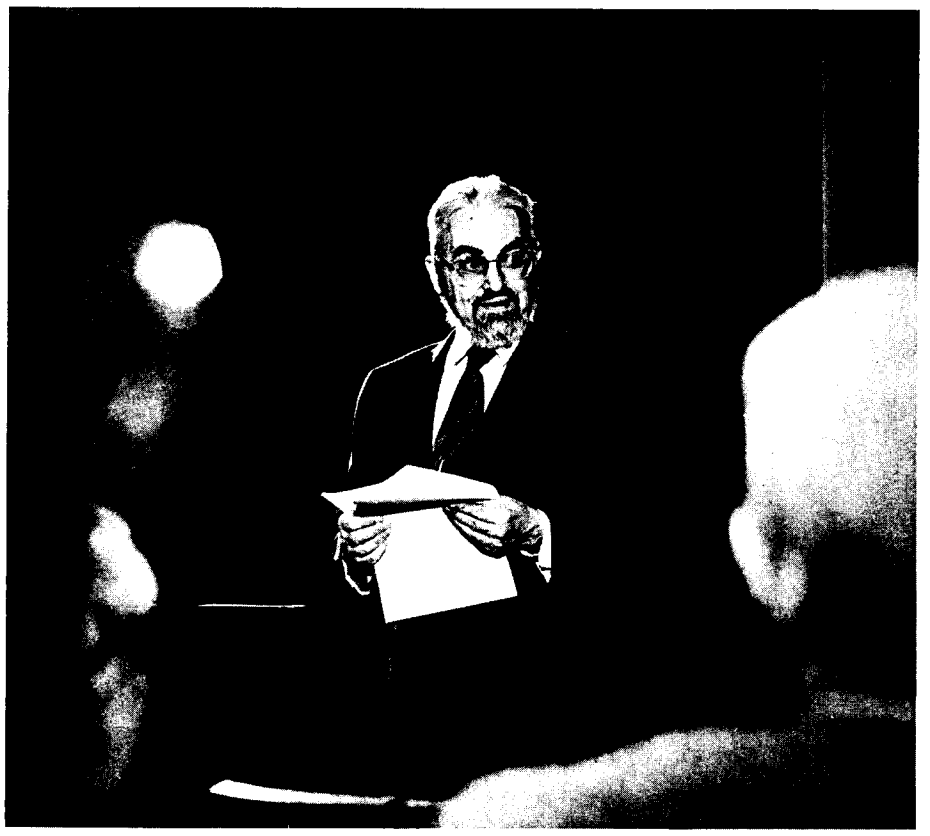
At the end of each month, the Bulletin salutes those employees who are retiring with 35 or more years of Laboratory service.

After a career extending back over 42 years at BNL and loaded with awards, Ernest Courant, a senior physicist in the Accelerator Development Department, is officially retiring on January 1, 1990.

However, since Courant's consulting plans for the future include projects for the Lab's proposed Relativistic Heavy Ion Collider (RHIC) and the proposed national Superconducting Super Collider (SSC), the field of accelerator physics is assured of the continuing participation of one of its foremost specialists.

Among Courant's outstanding achievements in accelerator physics was his role in inventing the principle of alternating gradient focusing in 1952, along with the late BNL physicists Stanley Livingston and Hartland Snyder.

Also known as strong focusing, the alternating gradient principle has been critical to the development of advanced accelerators. Within accelerators, particles spin around in a circular path at nearly the speed of light and at energies that rival cosmic rays generated in the galaxy. Keeping the particles in place are two types of magnets: those that bend the particles around the turns, and others that focus them horizontally and vertically.



Ernest Courant

According to the alternating gradient focusing principle, magnets focus the beam first in one direction and then another. This arrangement allows particles to be focused more strongly. As a result, the smaller particle beam created by strong focusing permits the use of much smaller magnets, and this makes it possible to build high energy accelerators at a reasonable cost and size.

Commissioned in 1960 and still focusing strongly, the 33-billion-electron-volt (GeV) Alternating Gradient Synchrotron (AGS) at BNL was one of the first applications of this idea — and one of the first accelerators for which this discovery opened new worlds of exploration into the elementary constituents of matter.

Findings such as the Omega-minus particle at the AGS in 1963 and the W and Z intermediate vector bosons at CERN's Super Proton Synchrotron in 1983 were only possible thanks to the new principle.

It was also due to alternating gradient focusing that BNL's National Synchrotron Light Source exists today, and that the next decade is expected to see the start of construction of the 20 trillion-electron-volt SSC in Texas.

Courant's expertise with accelerators had been preceded by pioneering work in particle beam dynamics. He came to the Lab in its first year, 1947, as a summer visitor from Cornell.

After beginning work on theoretical aspects of the Cosmotron, BNL's first proton synchrotron, he joined Brookhaven's permanent staff in 1948. Courant developed theories relating to particle beam size growth and loss of beam for this 3-GeV accelerator — the largest in the world when it came on line in 1952.

For his contributions to accelerator physics, Courant has been awarded the 1987 Robert Wilson Award of the American Physical Society, the 1986 Enrico Fermi Award by the Department of Energy, and the 1979 Boris Pregel Award for Applied Science and Technology from the New York Academy of Science.

In May 1988, Courant was also granted an honorary Doctor of Sci-

(Continued on page 2)

Longest Lab Library Career Shelved for Retirement

Marilyn Galli has worked within the Technical Library for only one year less than BNL has had a collection of scientific and technical books and journals, and a repository for them.

"My brother took a job here, so it seemed like a good place to work — and the commute was a lot shorter than going to work in the city," says Galli, a Ridge native and former New York City commuter, whose first day at the Lab was April 5, 1948.

After over 41 years of BNL service, all spent in the Technical Information Division (TID), Galli will put in her last day today. "With automation, the library is heading in the right direction, so I feel comfortable about leaving it now," says Galli.

As the library's number of volumes, building and services expanded over the years, so too did Galli's job within TID: She began as a clerk, advanced to library assistant in 1951, moved up to assistant librarian in 1957, was promoted to librarian in 1957, was named senior librarian in 1980, became a supervising librarian in 1981, and assumed the position of library administrator in 1982.

Before the appointment of the present TID head, Galli served as acting Division Manager, from July to November 1988. She was named Deputy Manager of TID in June of this year.

"When I started, I was the youngest member of the staff, and now I'm the oldest — time has gone by quickly," admits Galli. "I've worked in every group in this division, held every job or supervised it. It's been fun."

Marilyn Galli

She recalls, "I began by buying periodicals — new issues and back sets going back to the 1880s," recalls Galli. "I found it interesting learning to recognize the foreign titles and browsing through the old issues.

"I spent the longest time as head of periodicals and circulation," continues Galli, "At the circulation desk, I got to meet a lot of name scientists — like I.I. Rabi — and I was thrilled to be able to help them with their information needs."

Not formally schooled in library science, Galli learned on the job over the years and through lots of seminars and short courses at Adelphi University, C.W. Post College, and the State University of New York at Stony Brook.

"I've worked for the five heads of this division — but the one who

(Continued on page 2)

Fire Chief Ends 42 Years Of BNL Uniformed Service

Having worn a uniform for 50 years — 44 of those years here on site — Fire Chief Frederick Strier of the Fire & Rescue Group, Safety & Environmental Protection, is retiring today after 42 years of service to BNL.

Strier's uniformed service began in 1939, when he enlisted in the Army Air Corps. After fighting World War II in North Africa, Sicily and Italy, he was discharged in August 1945, and went home to Yaphank.

Following his discharge, Strier used his pre-war firefighting experience to land a job at the Army's Camp Upton as one of the 98 firefighters then needed to protect the site. In 1946, when the site was transferred to the Manhattan District, which later was called the Atomic Energy Commission, Strier went along. With BNL's establishment in 1947, Strier became one of the Lab's first employees: Hired on March 21, 1947, he was assigned life number 385.

Moving up the ranks, Strier became Fire Chief in 1985. Under his tenure, the old Bldg. 99, one of two Camp Upton firehouses, and BNL's first and only firehouse, was torn down in 1986. It was replaced by Bldg. 599, the Lab's present, modern firehouse, which shelters two fire apparatus, an ambulance, a rescue unit and a high-pressure fog truck, in addition to the 29 members of the Fire & Rescue Group.

In hanging up his uniform, "I'll be packing in my firefighting days," says Strier. "I've enjoyed my work and the company I've kept, that's why I stayed so long. But enough is enough. I have a lot of work to catch up with around the house that my wife Viola has been asking me to do for years — like renovate the bathroom."

An East Patchogue resident, Strier will keep close to home during his retirement. "We still have a son at home, Joseph, who turned 14 this Christmas eve, and keeping up with the youngster keeps me young," explains Strier. His three grown children and three young grandchildren also live locally, "so I don't have to go very far to visit — I had enough of traveling when I was in the service," he adds.

Though he'll be out of uniform and clothed in civvies everyday from retirement on, Strier will still polish his shoes every morning. "There are some good habits from the service not worth breaking," he concludes.

— Marsha Belford

Frederick Strier

The 25 and Over Set Honored as VIPs

The 147 BNL employees who had completed 25, 30, 35 or 40 years of Lab service during 1989 were honored by the Directorate during a reception on December 12, at the Brookhaven Center.

That evening, Brookhaven's Very Important People included 78 staffers who have been at the Lab for 25 years, 38 having accumulated 30 years, 20 with 35 years of BNL experience, and 11 who have worked here for 40 years.

Invitations were also extended to the 37 BNL'ers having put in 36 to 39 years of service and the 18 whose service adds up to over 40 years, as well as supervisors and guests.

Photos in this issue by Roger Stoutenburgh.

ID Card Renewal

All employees, guests and retirees are reminded to have their identification cards renewed. Those holding an ID encoded with a PIN number for access to secure areas are advised that, after January 15, only the new magnetic strip-encoded ID cards will be accepted by the access card readers for entry into secure areas.

ID cards can be renewed in Room D, Berkner Hall, weekdays from 9 to 11:50 a.m. or 1 to 3 p.m. Bring the card that was in the package sent to you, but do not sign it until you get to Room D. The service's stay in Berkner has been extended into January.

Courant (cont'd)

ence degree from Swarthmore College, from which he was graduated in 1940. His first doctorate was a Ph.D. in physics, which he earned from the University of Rochester in 1943.

Over the years, Courant has also combined his research with teaching at Yale, Princeton and the State University of New York at Stony Brook. Said Courant, "This was very stimulating to me. I believe that I have helped a few get started in productive careers."

A member of the National Academy of Sciences, Courant recently served on a committee appointed by the National Academies of Sciences and Engineering to evaluate the proposed locations for the SSC.

Looking back to the first days at the Lab, Courant remembers them as a time of high adventure. "The Cosmotron was a frontier," he said. "Now, everything seems well laid out, but we are still at a frontier. With the hopeful signs continuing for RHIC, I believe people have not given up on finding new directions for further progress." — Liz Seubert

Enter R&D 100 Competition; View Last Year's Winners

To recognize the top 100 technological achievements of each year, Research & Development magazine has sponsored its annual R&D 100 competition for the past 27 years. In 1969, BNL earned the Lab's first such award, and every year since 1984, Brookhaven has captured at least one R&D 100 award, for a total of 13.

Last year's R&D-100-award winner from BNL, a real-time harmonic closed-orbit feedback system developed by Li-Hua Yu and his collaborators at the National Synchrotron Light Source, will be featured in a display, along with 23 other R&D-100 winners from U.S. Department of Energy (DOE) laboratories. On display from January 3 through January 30 in Berkner Hall lobby, the "DOE 1989 R&D 100 Awards" exhibit should make interesting viewing.

Inspired by the exhibit, consider entering the next R&D 100 competition. Eligible for entry is any new technical product that was completed and delivered by a federal laboratory, or became available for contract or licensing between January 1 and December 31, 1989.

To encourage participation in this competition, the Lab pays all entry fees. As well, BNL picks up the tab for any expenses associated with winning R&D 100 awards.

Applications are now available from the Office of Research & Technology Applications (ORTA), Bldg. 475, Ext. 2103. All entries must be received by ORTA by February 15.

Galli (cont'd)

taught me everything I know about libraries was John Binnington [one of BNL's first employees, hired as a librarian in 1947, who served as TID Officer from 1971-79]," recalls Galli. "I'm still thankful for his encouragement."

An active member since 1962 in the national Special Libraries Association (SLA), Galli became a charter member of its nuclear science division in 1963. She served as the division's secretary in 1975, chaired its nominating committee in 1984-85, and chaired the division in 1987. As well, Galli helped establish the SLA Long Island chapter as a charter member in 1972 and became its secretary in 1977. She also was a member of its editorial board, 1983-86.

In addition, Galli has been a trustee of the Long Island Library Resources Council (LILRC), 1983-87; its secretary 1986; and LILRC president 1987.

While enjoying the holidays at home in Remsenburg, Galli and her husband Jack, who is retired, have been contemplating what they will do next. Galli explains, "We have some property in Virginia and family on the east coast south of Washington, D.C., so we think we'll head south — but first for a vacation."

Galli adds, "So when it's cold and icy here on Long Island in February, I'll be thinking of the Lab — but on a beach in Florida."

— Marsha Belford

In Memoriam

It has been learned that **Michael Figluizzi**, a rigger in the Plant Engineering Division (PE) assigned to the Alternating Gradient Synchrotron, died on November 18, following a long illness. He was 63.

Figluizzi came to the Lab in October 1955 to work as a PE laborer, and, in June 1956, he became a buildings & grounds utility person. His eleven-year rigging career began in October 1961, when Figluizzi was named a rigger's assistant. He moved up to a rigger in April 1969. Since October 1979, Figluizzi has been on long-term disability.

He is survived by his wife Betty Figluizzi of Shirley; two sons: Louis and Kenneth, both of Shirley; and three grandchildren.

Arrivals & Departures

Arrivals

Steven B. Bertman.....App. Science
John U. Valente.....Nuclear Energy
Jie Wei.....Accel. Dev.
Jianming Xu.....Accel. Dev.

Departures

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

Daniel M. Brown.....Biology
De Huai Chen.....App. Science
Xiuhua Cui.....AGS
John R. Curreri.....Nuc. Energy
Caroline A. Grimshaw.....Nuc. Energy
Peter S. Klieger.....Medical
Susan A. Miller.....Fiscal

Nursery School Opens Enrollment

If you're looking for a cooperative preschool for your three- or four-year-old, what could be more convenient than the Upton Nursery School?

This cooperative preschool is open to families of BNL employees and their relatives. Certified teachers hold classes from 8:30 to 11:30 a.m., Monday, Tuesday and Thursday, in the Recreation Building in the apartment area on site. Parents help as teachers' assistants on a revolving basis and manage the school's business.

You can find out more about the Upton Nursery School and enroll your child for the 1990 school year on Wednesday, January 10. That day, stop by the enrollment table in the Cafeteria from 11:30 a.m. to 1:30 p.m. Your questions will be answered by teachers Renee Bloch and Judith Van Asselt, and by enrollment chair Kathy Hershcovitch.

For more information, contact Herschcovitch, 331-3785, or Valeria Condemi, 399-1258.

Happy New Year — With Thanks

As 1989 draws to a close, the Bulletin staff wishes all our readers a very happy and healthy New Year.

We'd also like to take this opportunity to thank all those who did the behind-the-scenes work without which the past year's Bulletins would never have been possible: Janet Sillas, Public Affairs, for helping us meet those never-ending deadlines; Leo Casey, Cyndy Chisare, Michele Dickerson and Dolores Knighton, Composition Group, Photography & Graphic Arts (P&GA), for their patience and expertise in typesetting the Bulletin and preparing the mechanicals for press; and Andy Brems, Neal Jackson, Jeff Knighton, Leon Lawrence and Bruce Style, Off Set Printing Group, P&GA, for their skillful work with halftones and the press.

We also send thanks to: Mike Colon, Eva Esposito, Joe Hanson, Marie Ingenito and Kelly Mazzola, Quick Copy Group, P&GA, for their speedy pickups and deliveries; Phyllis D'Avanzo and Dolores Janes, P&GA's main office, for their cheerful assistance; Donna Daugirdas, Theresa Esposito-Lippo, Pat Yalden and Alan Schmidtchen, for their last-minute help with Bulletin design; and Whitey Caiazza, Judy Otto, Walter Palais, Irma Reilly, Illustration Group, P&GA, for their graphics contributions.

And, in the Photography half of P&GA, we can't forget: Helga Pirozzi and Debbie Zahara, who handle all our requests so capably; Peter Horton and Roger Stoutenburgh, whose photos enhance our words so beautifully; and Stan Cherouski, Dick Fuka, Joe Rubino, Georgia Schwender and Roy Skarka, who always print our photos by deadline, without sacrificing quality.

Finally, a heartfelt thank-you to the many people around the Lab who respond to our repeated requests for information or assistance with graciousness and timeliness.

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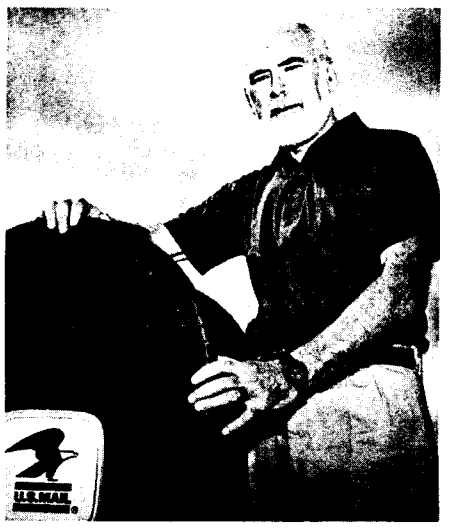
A Suggestion of Savings

If you've seen or used the new U.S. mailbox on Brookhaven Avenue, where the Farmers' Market is held on Wednesdays, you may have thought, "What a great idea! I wonder who thought of that?"

The great idea comes from Joseph Balsamo, a senior technical supervisor in the Safety & Environmental Protection Division. Being a frequent mailbox user, he thought a new mailbox would be more convenient to employees and would reduce traffic on Center Street. As this suggestion is expected to enhance safety on that greatly congested roadway, Balsamo was awarded $25 from the Employee Suggestion Program.

The new mailbox is situated in such a way that a driver can pull a car alongside it from either direction.



Aerobic Dance & Stretch Classes to Start

It's time to think about burning off those extra calories put on during the holidays — so join the Aerobic Dance Club.

Instructor Pat Campbell will lead two, different courses of exercise:

- **Stretch** classes involve floor exercises to lengthen, tighten and relax the various muscles groups of the body.
- **Aerobic dance** classes emphasize cardiovascular fitness through low-impact, choreographed movements combining calisthenics with dance.

Classes in aerobic dance will be held on Tuesdays and Thursdays, while stretch classes will be on Mondays. Classes run from 5:15-6:15 p.m., and mats are recommended for both.

Either or both classes may be taken, and each ten-week session of aerobic dance or stretch costs $30, payable at registration preceding the first classes:

- **Stretch** - Monday, January 8
- **Aerobic Dance** - Tuesday, January 9, and Thursday, January 11.

For the location of registration, call before the first class: Bill Leonhardt, Ext. 2378; Elinor Norton, Ext. 4355; or Janet Sillas, Ext. 2345.

Bowling

Week of December 11

Red/Green League

E. Sperry IV had a 223, R. Eggert 215, H. Arnesen 202, C. Bohnenblusch 201, E. Carter 201, L. Jacobson 201, R. Jones 200.

Purple League

Frank Gaetan had a 213, Jim Vogel 211/200, Pat Manzella 204, Dick Adams 200, Kay Conkling 188, Gail Schuman 185, Ed Sperry IV converted the 6/7/10 split.

White League

Andy Warkentien had a 230, Ed MacDougall 218, Fern Simes converted the 6/7 split.

Pink League

P. Meehan had a 185/173, R. Rosati 179, P. Jencius 179, D. Cunningham 178/169, M. Reynolds 172/169, D. Keating 171/168/166.

Week of December 18

White League

Ken Riker had a 231, Rich Scheidet 203, Caryl MacDougall 190, Mary Scheidet 189, Elaine Zukowski 187, Irene Sperry 181.

Purple League

Dick Adams had a 246, Kurt Jellett 232, Pat Manzella 220/180, Joe Cuccia 214, Joe Ferrante 213, Paul Callegari 205, Nancy Erickson 203/197, Cheryl Miezianka 192, Ellie Adams converted the 6/7/10 split.

Red/Green League

R. Eggert had a 267/224/204 for a 695 scratch series, A. Warkentien 229, E. Meier 222, R. Hohmann 213, C. Bohnenblusch 211, G. Meinken 200, L. Schairer 200, E. Sperry IV 200.

Volleyball

Standings as of December 22

Open League		League II	
GTEAM	29-4	Fossils	27-3
Magnum	27-3	Nuts & Bolts	25-4
Phoenix	13-17	Pteropods	16-14
Me and the Boys	13-17	Net Wits	14-16
Jet Setter	12-18	Sourcerers	13-17
Dig It	10-20	Chunga's Revenge	12-18
Penetrating Vollies	4-29	Upton-Ups	7-23
		Slammers	6-24
League I		**League III**	
Upfagrabs	30-3	Lethal Women	23-1
Dinkers	26-7	MISfits	17-7
Cannonballs	21-15	High Volley'em	16-8
Xrayted	16-17	Nutcrackers	13-11
Up-Setters	11-25	Renegades	12-12
Rude Dogs	9-24	Good Timers	11-13
Network News	8-25	Bad Gnus	8-16
		Spikes	4-20
		Turkeys	4-20

Food, Glorious Food . . .

There's nothing quite like it — especially the 2,800 pounds of food donated by Lab employees in December to feed Brookhaven Town's hungry over the holidays.

The food was collected by the BNL Food Drive, which is run in conjunction with Brookhaven Town and the INTERFACE Coalition of Corporations. The collections are then distributed through food pantries throughout Brookhaven.

Needy people will be hungry into the new year and next decade, so BNL Food Drive Chair Carole Kerr hopes that employees will be generous with their canned goods and nonperishable foodstuffs during the next collection, the week of January 15.

New Pool Season

Tickets for a new, four-month season — January through April — will go on sale at the pool during its open hours, starting Tuesday, January 2.

Fees —

Season tickets (fees not prorated)

Individual membership	$30.00
Family membership	40.00

Season tickets will be sold only to employees and their immediate family members who reside within the same household.

Daily admission

Employee	$1.50
Family member	1.50
Guest	2.00

Open hours —

Monday through Friday

11 a.m.-1:30 p.m. employees only
1:30-2:00 p.m. reserved for speed swimming and training
5-9 p.m. employees, families and guests*

Saturday and Sunday

1-5 p.m. employees, families and guests*

The pool is closed on all Lab holidays.

**One guest accompanying an employee is permitted without prior permission. Advance arrangement for more guests, up to a maximum of five at any one time, must be made at the Recreation Office in Personnel.*

Carnations on Sale

To benefit the American Heart Association, BERA is sponsoring a carnation sale for the second year. For each $5 donation, you will receive a bouquet of fresh carnations on Wednesday, January 24.

"Flowers straight from the heart" is this year's sale theme, so have a heart, buy a bunch and give them as a gift to yourself or someone special. Though the bouquets are small, the donations will add up for the American Heart Association.

Paid orders are being taken at the BERA Sales Office in Berkner Hall, weekdays, 9 a.m. to 2 p.m., today through January 10. Order as many bouquets as you wish now, as they will not be available for purchase on January 24. Pick your order up that day at the same location.

If you have any questions, call Louisa Barone, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Touch Football Champs

The Untouchables truly lived up to their name this season. They maintained a 6-0 record for the regular touch-football season and continued undefeated throughout the play-offs. Members of this impressive team included: (back, from left) Ed Meier and Wayne Rambo; (front, from left) Gerry Shepherd, Alan MacIntyre, Pooran Singh and Mike Fulkerson. Not pictured: Gordon Smith, Pete Ratzke, Mike Anerella and Mitch Williams.

In Stormy Weather:
Dial 282-INFO

Cafeteria Menu

Luncheons

Monday, January 1 — New Year's Day
Brookhaven Center club open 5-11 p.m.

Tuesday, January 2

Soup: Split pea	.75/.90
Entree: Italian sausage hero	2.85
Fitness fare: Barbecued chicken w/veg.	3.10
Carvery: Roast beef sandwich	2.85
Grill: California burger w/fries	2.35

Wednesday, January 3

Soup: Beef vegetable	.75/.90
Entree: Chicken fajitas w/veg.	3.10
Fitness fare: Vegetable quiche w/veg.	3.10
Carvery: Corned beef sandwich	2.85
Grill: Reuben	2.85

Thursday, January 4

Soup: Potato cabbage	.75/.90
Entree: Stuffed pork chop w/veg.	3.10
Fitness fare: Tuna tettrazzini w/veg.	3.10
Carvery: Baked Virginia ham sandwich	2.85
Grill: Double cheese burger	2.50

Friday, January 5

Soup: Manhattan chowder	.75/.90
Entree: Yankee pot roast w/veg.	3.10
Fitness fare: Broiled sole amandine w/veg.	3.10
Carvery: Turkey w/cranberry sauce	2.85
Grill: Seafood nuggets w/fries	2.85

Breakfast specials served w/sm. juice, coffee or tea 2.65

Tue.: Western omelette w/french fries, toast & jelly
Wed.: Spanish omelette w/home fries, toast & jelly
Thu.: Scrambled eggs w/cheese & chopped ham on a croissant
Fri.: 2 eggs, 2 French toast, grilled ham & hash browns

Help Wanted at the Cafeteria

Service America Corporation, which runs BNL's Cafeteria, needs waitresses and waiters. Service America is an equal opportunity employer. Anyone interested may apply in person at the Cafeteria or call Ext. 3541.

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 and/or appropriate bargaining unit, 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 Employment Manager, Ext. 2882.

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

SCIENTIFIC RECRUITMENT - Candidates may apply directly to the department representative named or through the Office of Scientific Personnel, Ext. 7813.

MEDICAL FELLOW - to do research and gain clinical experience in SPECT, nuclear cardiology, planar imaging, PET and related services, as part of a joint BNL-State University of New York at Stony Brook program in nuclear medicine. Contact: Nora D. Volkow, Medical Department, Bldg. 490.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4138. ENGINEERING POSITION - Requires BSEE/ME, and experience and skills in electrical safety, knowledge of National Electric and OSHA codes, and ability to review engineering drawings. Knowledge in the fields of occupational safety, industrial hygiene, and hazardous-waste disposal desirable. Safety and Environmental Protection Division.

4139. REFRIGERATION AND A/C ENGINEERS -Requires substantial experience troubleshooting, repairing, installing, and operating commercial and industrial air conditioning and refrigeration equipment including steam absorption, and centrifugal and helical screw refrigeration machines. Successful completion of refrigeration and a/c apprenticeship program or related course work is highly desirable. Must be able to work shifts as required. Plant Engineering Division.

Motor Vehicles & Supplies

89 KX250 DIRT BIKE - prof. maintained, ported, fast, excel. cond., asking $2,500. Bob, Ext. 4672 or Lois, Ext. 4904 or Brett, 929-4753 eves.

88 HYUNDAI EL GL - 3-dr., h/b, red, 5-spd., p/w, sunroof, am/fm cass., 16,100 mi., v.g. cond., $4,600. Ext. 4629 or 929-4258.

86 YAMAHA VENTURE ROYALE - loaded, excel. cond, low 20's. Jim 447-1381 after 6 p.m.

86 SUBARU GL-10 - 4wd, turbo wagon, every option, 3-yr. unlimited warranty, 5-spd., mint cond., $7,700. Henry, Ext. 4547 or 727-7227.

85 BUICK SKYHAWK - 5-spd., ac, p/s, am/fm cass., excel. cond., $3,500. JoAnn, Ext. 4120 or 689-7963.

85 NISSAN 200SX XE - h/b, 29k mi., ac, p/b, p/w, 5-spd., loaded, $6,700. Bob, 744-4879.

85 TOYOTA COROLLA - 2-dr., ac, 5-spd., w/o-drive, orig. owner, 40k mi., excel. cond., $5,000. Ext. 2839.

85 FORD BRONCO XLT - loaded, 64k mi., excel. cond., asking $9,900. Paul, 581-1999.

84 EAGLE WAGON - 4wd, a/t, p/s, ac, am/fm cass., 45k mi., clean, asking $4,700. Ext. 2604 or 473-2473.

84 HONDA AERO 125 MOTOR SCOOTER - 8k mi., new battery, extras, excel. cond., must sell, $450. Frank, Ext. 7519 or Vita, 277-0464.

83 NISSAN SENTRA - 2-dr., good cond., must sell, $800 neg. 727-7350 eves.

82 CADILLAC COUPE DeVILLE - 65k mi., excel. cond., excel. gas mileage, $3,800. Stan, 589-4792.

82 SENTRA - s/w, new clutch & brakes, 5-spd., ac, am/fm cass. stereo, $1,500 neg. Mike, Ext. 4199.

82 OLDS CUTLASS SUPREME - 2-dr., ac, a/t, p/w, bucket seats, new tires, battery & shocks, excel. cond. 289-1963.

82 PONTIAC BONNEVILLE - wagon, 71k mi., V-6, p/w, p/b, am/fm cass., ac, good cond. 751-8671.

81 SUBARU WAGON - 4wd, ac, am/fm, well kept, $1,500. must see. David, Ext. 3640 or 345-0326.

81 TOYOTA STARLET - 5-spd., newly inspected, sunroof, runs well, any reasonable offer. Ext. 3784 or 582-3163.

81 COUGAR LS - 4-dr., p./s, p.b, a/t, p/w, ac, new transmission, runs well, $1,000. 363-6447.

81 DATSUN 510 - handyman's special, engine good, new brakes, needs clutch, muffler, some body rust, make offer. Nancy, Ext. 4574.

80 HONDA ACCORD - h/b, 5-spd., am/fm cass., new brakes, tires, & exhaust system, $1,000 neg., leave message. 874-3655.

80 BUICK CENTURY - ac, a/p, p/s, p/b, am/fm stereo, excel. running cond., moving, asking $1,300. Ext. 3104.

80 TOYOTA PICKUP - long bed, 4wd, cap, new clutch & trans., 135k mi., $1,900. 727-5426 after 5 p.m.

80 FORD CARGO VAN E350 - 6-cyl., am/fm cass., great work truck, $1,500. Hency, Ext. 4547 or 727-7227.

79 OLDS CUTLASS WAGON - ac, a/t, p/s, V-8, 89k mi., best offer. Ext. 2604 or 473-2473.

78 TOYOTA DOLPHIN MOTOR HOME - self-contained, sleeps 3-4, new paint, low mileage, excel. cond., $7,000 neg. 475-3415 after 6 p.m.

78 TOYOTA COROLLA - runs well, asking $400. 727-3863 eves.

76 CADILLAC COUPE DeVILLE - needs some repair or use for parts, free. Juris, Ext 5482.

76 CADILLAC COUPE DeVILLE - leather int., new tires, trans., 81k mi., must sell, asking $1,495. 874-2441.

73 NOVA - parts. Bob, Ext. 5286 or 298-9594.

65 DODGE DART - $300. Frank, Ext. 2314 or 567-5131.

71 CHEVY PICKUP K-10 - 350, V-8, 8' bed, $3,400; '72 Chevy 350 motor, $300; trany & transfer case, $350; aluminum rims, 15", $100. Jim, Ext. 4669.

CAR COVER - for Jeep Cherokee, custom made, 3-ply, waterproof, breathable, light weight, used only 3 times, cost $140, sell $70. Marty, 654-5888.

RIMS - 14", GMC, Chrysler, Ford, Chevy, Dodge, good for snow tires, some w/tires, $10 ea. Frank, Ext. 7519.

TIRES - 3, 195/75R14, one new, 2 w/plenty of tread, all on 5-hole wheels, $100. Tony, Ext. 3658.

TIRE - new, 721 Firestone, 235/75R15, Eldo rim, $35. Ernie, 588-4987

Boats & Marine Supplies

19' BOWRIDER CRUISER - 1972, w/1976 115-h.p. Johnson, Coast Guard pkg., trailer w/electric winch, $3,000. Frank, Ext. 2314 or 567-5131.

OUTBOARD MOTOR - 1988, Seagull, MDL.45, equal to 4 h.p., neutral & forward, never used, asking $625. Ext. 3082 or 3083.

MOTOR - 55-h.p. Evinrude, needs work, best offer under $300. Donna, Ext. 4103.

Furnishings & Appliances

BEDROOM SET - maple, dresser, mirror, chest of drawers, twin headboards, nightstand, $350. Matt, Ext. 4216.

CHINA CLOSET - buffet, mirror, dining room table w/pad, 6 chairs, light neutral wood, good cond., $650. 821-1827 after 6 p.m.

HUNTBOARD - 40"h x 51"l, 4 drawers, pine, $199; Martha Washington red leather armchair, $15; school desk w/attach. chair, $35; more. 821-9089.

QUEEN BED - excel. cond., $150; twin bed, $80; 5-drawer pine dresser, $65; 3-drawer dresser w/mirror, $65; more. David, Ext. 3640 or 345-0326.

BEDROOM SET - traditional, 5 piece, $800; day bed, excel. cond., $50; more. 924-5092.

ROCKER - Colonial, upholstered platform rocker, walnut finish; 2 stereo cabinets; dry sinks, pine, walnut finish, best offer. Bob, Ext. 3509.

ARM CHAIRS - 2, olive green velour, French provincial, v.g. cond., $20/each, $35/both. Morris, Ext. 4192 or 751-7787 after 6 p.m.

WALL UNIT - good cond., $40. Ext. 2679 or 472-6922.

WALL OVEN - cooktop, coppertone, Roper, needs new ignitor, otherwise excel. cond., cost $135, now $200/both. Margaret, 588-7989.

MICROWAVE - GE, auto cook, auto defrost, roast, large space, excel. cond., $150. 325-1756.

WOOD STOVE - Vermont Castings, good cond., w/screen, $350. Ron, Ext. 4715 or 289-1003.

FREEZER - Amana, 16 cu. ft., white, good cond., $75. Bert, Ext. 5156 or 581-4436 eves.

REFRIGERATOR - Hot Point; Gibson freezer; ladder back chairs, reasonable. 363-7032.

PRINCESS DRESSER - antique, 2-drawer, orig. oval mirror, oak, excel. cond., $425. Henry, Ext. 4547 or 727-7227.

KITCHEN TABLE - & chairs. Ext. 2043 or 435-4316.

GLASS CABINET - wood sides, on rollers, modern, $20; 5-panel room divider, light oak trim, orig. $75, now $35. Kim, Extr. 4461 or 3694.

Tools, House & Garden

TACH/DWELL METER - Heathkit, $15; Sears timing light, $15. Bob, Ext. 3509.

GENERATOR - 4 kW, Lab order, w/extra muffler, never used, asking $400. Ext. 7505.

KEROSENE HEATERS - portable, Radiant King RK-100S, 9.6 Btu; Aladdin Equator II, 19.5 Btu, $25/each; w/manual & 5 gal. can. Fran, Ext. 4215.

KEROSENE HEATER - 6,800 Btu, good cond., $40. Mark, Ext. 7978.

COMBINATION WRENCHES - Williams, 1 1/16" to 1 5/8", $10-$20/each. Henry, Ext. 4547 or 727-7227.

FIREWOOD - 3 cords, oak, seasoned, you haul, $200. 874-2441.

Sports, Hobbies & Pets

CLARINET - student model, excel. cond., $125; Signet, $250; woman's ice skates, size 6, like new, $5. Jim, Ext. 3372.

EXERCISE BIKE - Bally Lifecycle, computerized, 2½ years old, warranteed to April 1990, $1,400 new, ask. $500, excel. Brian, Ext. 5265 or 234-9487.

DOG - Pekingese, female, AKC, family dog. Dan, 654-1731.

SNOW SKIS - Elan 170 326 Salomon bindings, $70; Hart 160 Tyrolia 230, $60; boots, women's 8-7, $15-35; men's 10-11, $15-35. Ralph, Ext. 4446.

PUPS - AKC Rottwieler pups, born 12/7, taking deposits. 281-7942.

CAMERA - Canon FTB, SLR w/28mm, 50mm, 50mm macro, 70-210 zoom, macro lenses, flash, all excel. cond., $425. Bob, Ext. 5042.

FISH TANK - 30 gal. w/light, filter, stones and custom-made wood cabinet, storage base, $80, firm. Marty, 654-5888.

DOG CAGE - large, used only 2 months, like new, cost $110, will sell $55. 472-0690.

ICE HOCKEY SKATES - Bauer, worn once, boys' size 4, women's size 6, $45; Smith Corona manual typewriter, portable, $20. Ext. 3699.

INDOOR TRAINER - Blackburn, track stand, Bell Quest helmet, m/l, new. Ext. 2043 or 325-9580.

Audio, Video & Computers

DOUBLE KEYBOARD - Wurlizer, electric, w/rhythm & instruments organ, $1,000. Ext. 4605 or 281-9523.

COLOR TV - w/remote, $150; JVC stereo cassette player/radio, $30; clock/radio, $8. David, Ext. 3640 or 345-0326.

COLOR TV - Sony, 19", VHF/UHF, $50. Gar, Ext. 4387.

COLOR TV - RCA, 25", console, like new, $200. Andy, Ext. 2907.

Miscellaneous

CLOWNS - handmade, fabulous, sit on shelf, 2'. Bob T., Ext. 2314.

GIFTS - gourmet chocolates, gift baskets, candy gift trays, collectible dolls, custom made trays, will ship. 277-0464.

FUR COAT - full length, crystal fox, tuxedo front, 3 years old, good cond., $1,200. Darcy, Ext. 3362.

DOLL - Goebel, 12" tall, boy in German costume, made in W. Germany, $65. Ext. 2733 or 878-8491.

MINERALS - fossils, rings. Whitey, Ext. 2913.

TREE DECORATIONS, $1 ea.; brass Victorian fireplace set, $95; wreath, $5, women's and men's ice skates, $20 ea. Kathy, 744-2203.

CLOTHES - men's new sports jackets, size 40, $20; wool sweaters, medium, $10 ea.; jeans, brown, size 36, $10. Susan, Ext. 7716.

BABY DRESSING TABLE - $40; crib mattress, $15; Snugli, $10; car seat, $7; humidifier, $5; take all, $65. David, Ext. 3640 or 345-0326.

STROLLER - Cosmos w/carriage feature, good cond., $30. Ext. 4985 or 331-8459.

MINK COAT - White Cross, mink hat to match, $950 neg.; children's downhill ski boots, size 12, $15. John, Ext. 4203.

BABY TRAVEL TENDER - Fisher Price, w/carrying case, $35. Ext. 3672.

Lost & Found

FOUND - silver pin, flute, in Cafeteria coat room. Mona, Ext. 5056.

ELECTRIC RANGE - G.E., green, excel. cond. Ext. 2830.

Free

COLLIE/SHEPHARD - 11 months old, house broken, good w/children, all shots. 941-4581.

Yard & Garage Sales

MOVING SALE - queen bed, twin bed, fold-out beds, chest, dresser w/mirror, color TV w/remote, more, make offer. David, Ext. 3640

MOVING SALE - complete household for sale, excel. cond., reasonable. 363-7032.

Car Pools

BOHEMIA-OAKDALE-SAYVILLE - need 2 more drivers for car pool, also can meet at LIE Exit 59. Frank, Ext. 2314.

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

BAITING HOLLOW - new, comtemporary, 4-bdrms., $1,550/mo. + util. 751-4539/821-2002.

CORAM - Bretton Woods condo, 2-bdrm. 2 baths, l/r, d/r, eik, w/w, cac, 5 appl., golf, tennis, i/o pool, clubhouse, no pets, $875 + util., sec. 289-0413.

HOLBROOK - new 1-bdrm. apt., walk-in closet, l/r, full bath, eik, d/r, w/w carpet, pvt. ent., yard, patio, near stores, $700/mo. incl. util. Margaret, 588-7989 or 981-8582.

MASTIC BEACH - 3-bdrm. contemporary, marina, views of bay and Fire Island, l/r with fp, d/r, 1½ baths, decks, OHW heat, avail. immed., $850/mo. + util. Mike, Ext. 2500.

MASTIC BEACH - 2-bdrm. apt., priv. ent., gar. for storage, 15 min. to Lab, $650 pays all. Jim, 281-2849.

MIDDLE ISLAND - Country Manor condo, 3-bdrms., 2 full baths, all appli., fenced, patio, tennis, pool, a/c, 6 mi. to Lab, $950/mo. Platner, Ext. 3922 or 878-2604 eves & wknds.

MIDDLE ISLAND - 3-bdrm. house, 2 baths, d/r, l/r, eik, 2-car gar., patio, hot water heat, 10 min. to Lab, $1,000/mo. + util., & sec. Boyzie, Ext. 7625.

NORTH SHIRLEY - 2½-room furnished apt., newly decorated, pri. ent., 1 person only, non-smoker, no pets, 5 min. from Lab, $500/all. 281-8044.

SELDON - 1-bdrm. apt., new, full bath, kitchen, l/r, w/w, pri. ent., separate heat, util. incl. 696-3519 after 6 p.m.

SHIRLEY - 1-bdrm. apt., l/r, eik, full bath, like new, preferably a single working adult, $575/mo. incl. util. 281-1840.

SOUND BEACH - 1-bdrm. apt., eik, l/r, priv. ent. w/driveway, off N. Country Road, $575 pays all. 473-9180 or 821-3306.

WADING RIVER - cozy 3-rm. apt., eik, full bath, one person, no pets, nonsmoker, $500/mo. incl. util., avail Jan. 1. Janet, Ext. 2345 or 929-3910.

WADING RIVER - 4-rm. house, large, shaded backyard, close to Lab, near beach, immed. occupancy, $600/mo. 437-2881.

HILTON HEAD, SC - 2-bdrm. condo, sleeps six, 2 baths, pool, beach, tennis, golf, $250/wk., Nov.-Mar., 689-5378.

For Sale

EAST MORICHES - 5 bdrms., 2 baths, formal l/r, eik, fam. rm., large screened porch, green house, tool sheds, near water. Ext. 3456 or beeper 0641.

MASTIC - 3-bdrm. ranch, ¼ acre, 1½ baths, den, fin. bsmt., deck, appl., house fan, 3 ceiling fans, shed, fence, near school, shopping, 15 min. to Lab, ask. $115,000. 265-2366 after 6 p.m. wknds.

MIDDLE ISLAND - Lake Pointe,. 2 bdrms., l/r-d/r area, w/d, cac, gas heat, wood deck off master bdrm., pool, tennis, clubhouse, ask. $78,500. Bob, 924-7316.

PATCHOGUE VILLAGE - waterview, 4-bdrm. Colonial, 2 baths, eik, formal d/r, fam. rm., fp, balcony, deck, carpet, appli., garage, ½ acre, walk everywhere. Jan, 286-3623 or Emily, 475-0090.

ROCKY POINT - 3-bdrm. high ranch, l/r w/brick fp, cath. ceiling, d/r, large kit., 2 baths, bsmt., cac, deck, 2-car gar. w/elec. doors, beach rights, 0.34 acre, $159,900. Kochman, 744-1057.

SELDEN - Village in the Woods, 1-bdrm. co-op, upper unit, eik, d/r, l/r, pvt. balcony, ask. $75,000. 696-5386.

SETAUKET - 9 rms., 3 baths, 2-car gar., beautiful ½ acre, mint cond., N. of 25A, $269,000. 751-1401.

WEST SAYVILLE - 3-4 bdrm. ranch, 2 full baths, gar.. cac, full bsmt., eik, d/r, l/r, w/w, fam./rec. rm., pvt. patio, Sayville SD, walk to Bay, $149,500. 589-2681.

YAPHANK - 3-bdrm. condo, 2½ baths, fin. bsmt., wood floors, a/c, 5 min to Lab, $120,000. 751-2216.

TAMPA, FL - Paradise Village M.H.P., 1982 Liberty mobile home, 14'x56', 2 bdrms., 1 bath, family park, all appli., cac & heat, awning, shed, excel. cond., must sell. Glenn, Ext. 4638.

Wanted

OTHER MOMS - mother of 20-mo.-old, seeks other moms to do things with weekdays, will drive. Laura, 289-9533.

USED TV - needed for 6 months, on-site housing, very reasonable or free. Ext. 3673.

CHILD CARE - for 6-mo.-old in my Rocky Point home, 8:00-5:30, mature woman w/good refs. 821-0379.

BRICKS - to make shed floor. Ext. 2343 or 732-5950.

BABYSITTER - female, for 8-yr.-old girl, must be reliable & H.S. age, mostly Fri. or Sat. evenings. Victoria, 399-6390.

TANK OF GAS - for our Spark Chamber, 90% neon, 10% helium, 10 liters. Exhibit Center/Science Museum, Ext. 4049.

TUBED STEREO COMPONENTS - old, Macintosh, Marantz, Western Electric. Jim, Ext. 4584.

LIONEL/AMERERICAN FLYER TRAINS - and access., good price. Bruce, 924-4097 after 5 p.m.

HOUSEMATE - to share Stony Brook Colonial w/professionals, $$350/mo. + util. Jim, Ext. 2183.

In Appreciation

My sons and I would like to thank all our friends for their support and kindness on the loss of my husband Michael. — Betty O. Figluizzi

The Upton Chapter of Professional Secretaries International (PSI) would like to thank all who contributed toys, gifts, food, and money for the Brighter Tomorrow Women and Children's Shelter. — Susan Carlsen, President, PSI

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