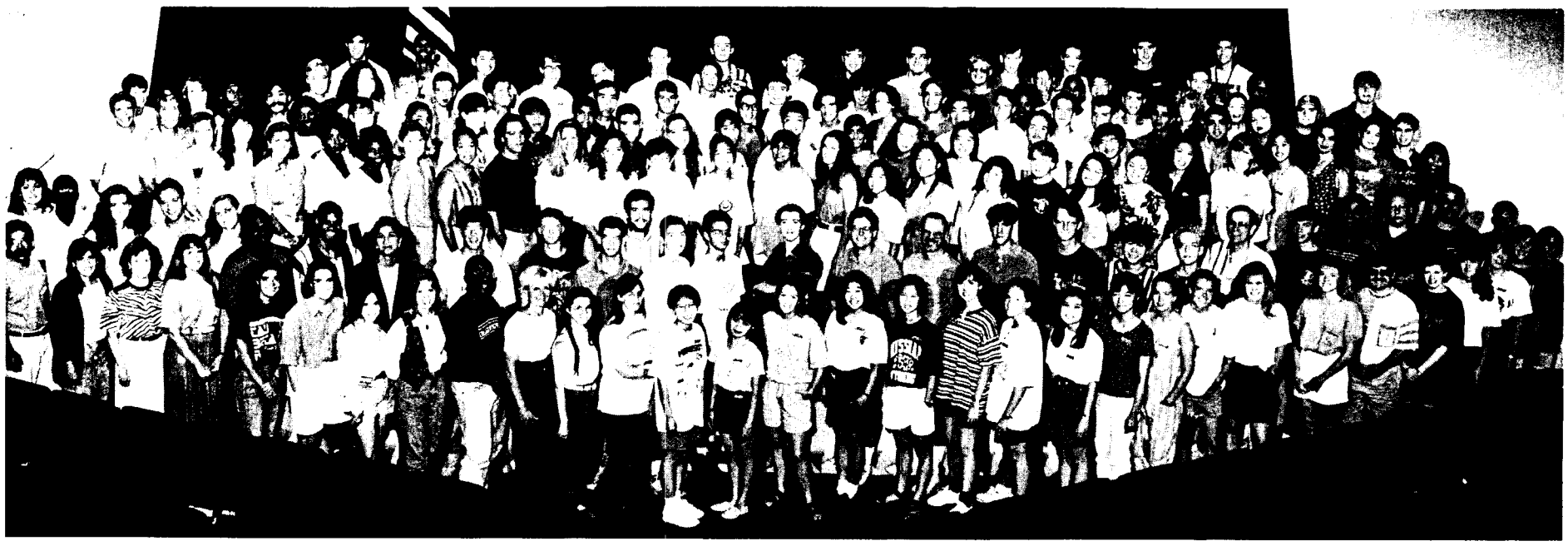
BROOKHAVEN BULLETIN

Vol. 47 - No. 31 August 6, 1993

BROOKHAVEN NATIONAL LABORATORY

Summer Student Special Edition



If the Lab's population has seemed a little younger recently, it's all because of people like these. This large group of smiling summer folks represents only a portion of the more than 300 high school and college students and high school teachers from all over the country and around the world who visited BNL for research and learning in the summer of 1993. As many head for home this week or next, the Bulletin wishes them luck in their diverse studies and careers!

— Photos in this issue by Roger Stoutenburgh

A Kaleidoscope of Summer Programs at Brookhaven

They came from near and far, from colleges and high schools, from myriad fields and specialties, all seeking the same thing: a rewarding summer of research at BNL.

As mid-August approaches, this year's crop of more than 300 summer students and visiting teachers has begun departing from the Lab, taking with them the memories and knowledge gained from weeks of collaboration with their advisors and co-workers. Before they go, the Bulletin is taking this issue to spotlight their accomplishments and their views, their activities and their faces.

Most of the diverse programs that brought them here are organized through the Office of Educational Programs. Many are listed in the story on page 2.

Summer Students Speak Out On Women & Jobs in Science

They're young. They're educated. They're heading for careers in diverse science and engineering fields.

And, while they believe opportunities in science are more available to both men and women now than ever before, they are nervous about their chances of beginning a satisfying career in today's tight job market.

A representative sample of this year's summer students was interviewed in an informal phone survey conducted recently for the Bulletin, allowing them to voice their views on science's opportunities for women, their generation's job prospects and their time at Brookhaven.

The two dozen students surveyed are all spending at least eight weeks in one of 12 different departments through five different BNL educational programs. An equal number of men and women was interviewed.

Split Support

An overwhelming majority — 88 percent — of the students said they believe it is easier for young women to enter science today than it was 20 years ago, a shift most attributed to changing attitudes. Some said the ease of entering science depends on the chosen field.

"There are more role models now [for young women], and more of their peers are going into science now than before, when they couldn't picture themselves in those roles," said **Adam Daly**, Humboldt State University, an undergraduate assistant in the Nuclear Chemistry Summer School run by the Chemistry Department.

Although it may be easier for women to enter science in the 90s than it was in the 70s, a slight majority — 54 percent — of the students believes that the programs founded decades ago to encourage the few women in science and engineering at that time are still worthwhile.

"As long as women are still a minority in science, there need to be groups to support them and help more women enter science," said **Livia Uelk,** Saint Louis University, a student intern in the Department of Applied Science (DAS).

Liz Schmidt, Providence College, a summer student in the Technical Information Division, agreed "There are still problems, such as sexual harassment and being looked down upon for being a woman, and you need someone who understands your view," she said.

(continued on page 2)

IBEW Contract Extended

BNL and Local 2230 of the International Brotherhood of Electrical Workers (IBEW) have agreed to extend IBEW's current contract with the Lab for two months while negotiations for a new contract continue.

Before this agreement was reached on Friday, July 30, the current contract was due to expire at midnight on July 31. Until the new deadline of midnight, September 30, all the conditions of the current contract remain fully in force.

At Brookhaven, IBEW represents about 550 bargaining unit employees in six divisions: Central Shops, Photography & Graphic Arts, Plant Engineering, Safety & Environmental Protection (firefighters), Staff Services, and Supply & Materiel.

Summer student Jennifer Olday, the first intern and first woman to work at the Central Steam Facility, examines a boiler's interior walls. Olday's power engineering co-op program at Maine Maritime Academy requires her to detail the workings of the entire steam plant.

Summer in the Steam Plant — With a Difference

She's not a token. She's not a decoration. She's just "one of the guys" in the steam plant.

Jennifer Olday is the first summer intern at BNL's Central Steam Facility, and the first woman ever to work in that jungle of hissing pipes and 179°C (380°F) steam.

But the 19-year-old power engineering major from Maine Maritime Academy (MMA) takes it all in stride. After all, she's here to get her first hands-on taste of her future career, not to be a showpiece.

"Doing it to be a pioneer is the wrong reason to be doing things," she said. "Engineering is something I've always wanted to do.

Olday's main duty during her 10-week stint in the plant is to compile the exhaustive report required by the MMA co-op program she's participating in. In addition to 525 working hours, that report calls for detailed descriptions and line drawings of each of the systems and major pieces of equipment in the plant, as well as the calculation of such parameters as friction loss in the plant's pipes.

(continued on page 3)

Student Survey (cont'd)

However, 28 percent of the students expressed mixed or negative feelings about such programs. Some said professional and campus groups have become strictly social or exclusionary. Others feel that preferential selection practices should be phased out.

"I think the best compliment to those kinds of programs is that I and others feel that we don't need them, and it's time for them to pass," said **Stephanie Alt**, University of Wisconsin at Stevens Point, a Chemistry Department summer student. "Their ultimate goal was to get to the point where we don't need them, and I think we've reached it."

Piero Simoni, a recent College of William and Mary graduate and a Medical Department summer student, said he realizes that such programs may help bring more women into science. But, he added, "What needs to be realized is that everybody can do science. I hope in the future they will not be necessary."

Few Optimists

With no dramatic differences between the sexes, men and women agreed on the worthiness of at least some forms of women-in-science programs. But, where jobs were concerned, a contrast in attitude began to show.

Women were twice as likely as men to be pessimistic about their generation's chances of finding jobs in science and engineering: Half of the women respondents saw a bleak future, while only a quarter of the men were as grim. Instead, men were much more likely than women — 50 percent to 8 percent — to have mixed optimistic-pessimistic feelings.

Some, such as Alternating Gradient Synchrotron Department student and Community College Honors Program participant **Marion Coleman**, North Shore Community College, feel the job squeeze and the fate of women in science are linked. "A lot of companies might want to hire tokens, and the situation of the past might be reversed," she said.

Others managed to be cautiously optimistic for everyone's chances. "It's going to be tough, but if you want a job and you look hard enough, then you'll find something. You just have to be flexible and able to do what they want," said **Corien Bakermans**, Worcester Polytechnic Institute, a Biology Department summer student.

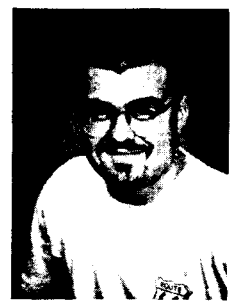
Toan Nguyen, City College of New York, a summer student in the Computing and Communications Division, said the current recession might have something to do with it. "It's tough compared with five years ago," he said. "Most of my friends graduate and go right back to school. But in the future it may be a little better."

Meanwhile, 87 percent of students surveyed said they are having a satisfying experience at BNL this summer. On the whole, most said they were learning a great deal from the experience.

"I feel like I'm going to be one step ahead of everyone else next year," said **Karina Thorpe**, University of Utah at Salt Lake City, a student intern at the National Synchrotron Light Source. — Kara Villamil

Kara Villamil is a summer student in the Public Affairs Office.

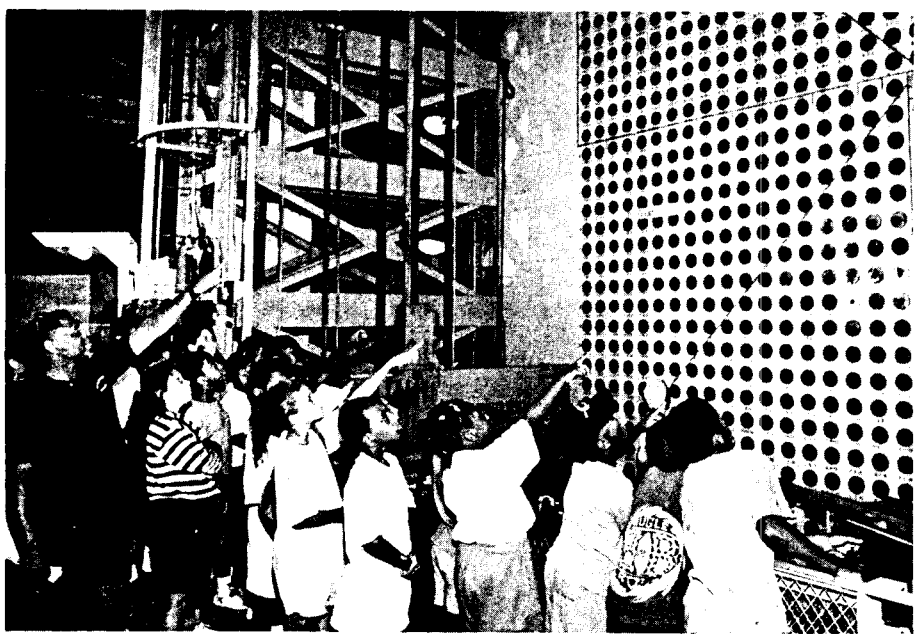
"I've heard it said on occasion that there's a shortage of scientists and engineers, but, judging by the lack of success of my peers in the job market, I tend to doubt that."
—Jeff Badger
recent University of Texas at Austin graduate, Department of Advanced Technology



"All the scientists from the 60s are finally retiring, so maybe when we get out, there will be jobs. With so many leaving, I hope the universities will keep at least some of the positions open."
— Adam Daly, Humboldt State University

"I was in a good undergraduate progam where women were supported once they decided to be in physics. But, before then, I had no one pushing me, and it's a miracle I got as far as I have!"
— Jessica Leiken, recent Vassar graduate, AGS

"In engineering, it's going to be tough all over, but in the sciences, everyone will keep staying in school. But it's not deterring me from pursuing a career in physics."
— Kim Vail, State University of New York at Buffalo, RHIC Project



Museum Points Out Fun of Science

This group of top sixth- and seventh-grade science students from all over Long Island visited the BNL Science Museum in July as part of the "On Your Marks" program sponsored by the Friends Academy of Locust Valley. The museum is housed in the former Brookhaven Graphite Research Reactor, and these young visitors are looking at the actual fuel-loading ports on the Reactor's south face.

For BNL employees, their families and the general public, Sunday tours of the Museum continue through August 29. Arrive at Berkner Hall any time between 10 a.m. and 3 p.m. for a slide presentation about the Lab, a bus tour of the site and a visit to the discovery-packed museum.

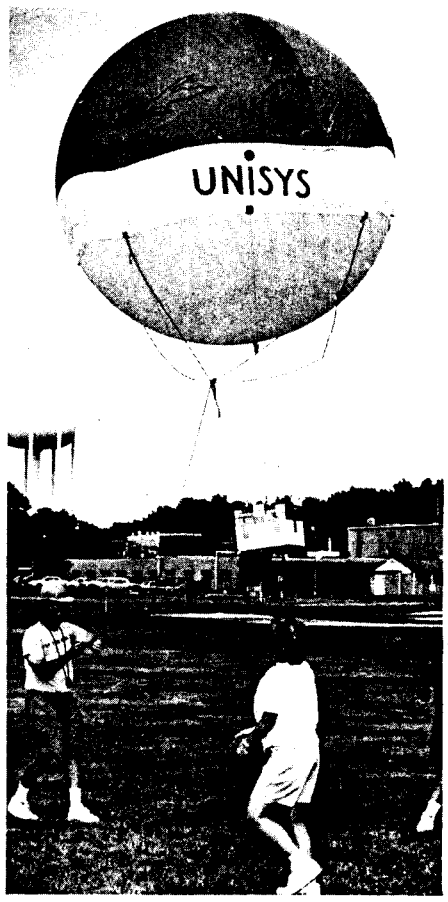
Up, Up and Away!

Once again, the Office of Educational Programs (OEP) has hosted a workshop in which a group of teachers successfully carried out a balloon-launch mission on site. Starting on June 30, this year's four-day workshop, given by Charles Duveen of UNISYS, taught the teachers how to implement an innovative program run by The Balloon Project, Inc., a non-profit organization for children with special needs.

The teachers trained at BNL will bring the project to their students. By designing, building and ultimately launching their own balloons to perform an aerial photography mission, students can see math, science and technology used in a practical, entertaining manner. The fact that management, scheduling and other skills are involved in this hands-on activity increases its value.

"It's a pleasure to be involved in something like this," said Karl Swyler, OEP's Acting Manager. "The teachers' excitement at successfully completing the project was really something. I'm sure it will rub off when they tackle the project with their students."

In running the event, Swyler acknowledged the assistance of the Safeguards & Security, Safety & Environmental Protection, and Supply & Materiel Divisions.



A Kaleidoscope Of Summer Programs At Brookhaven

Among the diverse summer programs offered at BNL are:

- **Summer Student Program** — Fifty-seven college juniors, seniors and recent graduates were placed in many of the Lab's departments for ten weeks of research under an advisor.
- **U.S. Department of Energy (DOE) High School Honors Research Program** — One student from each state and territory, as well as one each from seven other countries, was selected by his or her governor to come to BNL for two weeks of research at the National Synchrotron Light Source and other science experiences.
- **Summer Interns** — Five former DOE High School Honors Research Program students, now entering their college sophomore years, performed research under advisors for 10 weeks.
- **Teacher Research Associates** — Thirty-six teachers were brought to BNL from Long Island, New York City and other high schools nationwide for six weeks of laboratory research designed to augment their classroom skills.
- **Gallaudet Summer Students** — Four students from the nation's most prestigious university for the deaf participated in 10 weeks of research.
- **Environmental Education Outreach for Minorities** — Eleven college students, some from Suffolk County, came for four weeks of exploring and learning about Long Island's environmental resources and their management.
- **Nuclear Chemistry Summer School** — Eight college students, two teaching assistants and one assistant TA undertook eight weeks of experiential learning in nuclear chemistry through the Chemistry Department.
- **Community Summer Science Program** — Thirty-six Suffolk County high-school students attended a lecture series during the summer; most also participated in afternoon research or in a study group that visited Lab facilities.
- **Community College Honors** — Five students from various community colleges — North Shore in Lynn, Massachusetts, Nassau, Suffolk and the Bronx — came to pursue science research for 10 weeks.
- **Minority High School Apprenticeship Program (MHSAP)** — Forty-two ninth- and tenth-graders were at BNL for four weeks of classroom learning, each with a different emphasis.
- **National Institutes of Health High School Program** — Twelve students who previously participated in MHSAP and six teachers experienced six or eight weeks of enrichment or research in health-related science under a BNL researcher. Participants may be allowed to return for additional summers.

BWIS to Present Chasman Scholarship

Brookhaven Women in Science (BWIS) will present the 1993 Renate W. Chasman Scholarship to Diana Friedland of Watermill, on Tuesday, August 10, at 4 p.m., in Room B, Berkner Hall.

The Chasman Scholarship is given annually to a re-entry woman beginning her junior or senior year of college in a degree-oriented program in the natural sciences, engineering or mathematics. In accordance with these requirements, Friedland is a senior chemistry major at Hunter College of the City University of New York who began her college studies seven years after graduating high school.

All are invited. Tea, coffee and light refreshments will be served.

Steam Plant (cont'd)

"It's working out very well," said Ernest Simon, Steam Facility Supervisor. "She's had enough background to absorb whatever she was told and to do her project."

But what about the logistics of having a woman working with the plant's 12 male personnel for the first time?

"I was a little concerned at first, but it turned out to be a non-issue," said Simon. "The guys have been very supportive of both her and the program," answering her questions and guiding her on the project. The only modifications were to set aside a bathroom and locker area for Olday.

Based on this all-around success, Simon and Olday's summer adviser, General Supervising Engineer Ken Davis, said they hope to bring in more summer students in the future.

It was Davis, an MMA alumnus, who first requested a summer co-op student from his alma mater. The academy sent not only the first woman to get halfway through its non-regimented power engineering program, but also one of the top students in the 38-member co-op class.

Once Olday has completed the co-op program, she'll head back to Maine for the final years of her training and the stationary engineer licensing exams. When she finishes, she'll have the background to work at any power plant in the country.

Olday said she knows she'll be one of few women in such settings, but believes she can hold her own. "I wouldn't want to be in a situation where the men I work with would feel I was a token," she said.

Meanwhile, the summer experience at BNL has allowed Olday to get her hands wet, or at least greasy, in her chosen field. Simon added, "She came in kind of green and she'll leave a little more seasoned." — Kara Villamil

Scoop of the Week

The fourth Scoop of the Week for this sixth contest season goes to Sam Laney, a summer student in the Oceanographic & Atmospheric Sciences Division of the Department of Applied Science. He suggested the story on Jennifer Olday, the first summer intern, at BNL's Central Steam Facility.

During the summer, if you can scoop all of the Bulletin's informed sources with a hot tip and if the Bulletin publishes a news or feature story based on your idea, you too may win a Scoop of the Week — an official certificate, suitable for framing or for redeeming at the Cafeteria for a free frozen dessert of your choice, compliments of Service America Corporation.

To enter, send your hot tips to the Brookhaven Bulletin, Bldg. 134, or call Ext. 5053.

BROOKHAVEN BULLETIN

Published weekly
by the Public Affairs Office
for the employees of
BROOKHAVEN NATIONAL LABORATORY

ANITA COHEN, Editor
MARSHA BELFORD, Assistant Editor

Bldg. 134, P.O. Box 5000
Upton NY 11973-5000
Tel. (516) 282-2345; Fax (516) 282-3368

Diversity Fuels Rewarding Summer in Medical Lab

Working in the Medical Department lab of Brenda Laster are (from left): Kimberly Beck, Karen Hutchinson, Clarence Wilson, Virginia Heese and Nickolaus Jungheim.

Here's one for the BNL record books; file it under "D" for diversity. That's the word for the five summer visitors packed into Brenda Laster's Medical Department lab, all working on establishing the sensitivities of cancer cells to different drugs.

The five are: Kimberly Beck, a West Point cadet entering her junior year and working at BNL through a three-week West Point Service Contract; Summer Student Virginia Heese, a Canadian and senior at McGill University in Montreal; Karen Hutchinson, a Teacher Research Associate and a Regents honors biology teacher at Boys and Girls High School in the Bedford-Stuyvesant section of Brooklyn; Nickolaus Jungheim, a Gallaudet University junior participating in BNL's summer research program with that school; and Clarence Wilson, a Science and Engineering Research Semester student who continued in the Summer Student program.

Working together under Laster's guidance in the medical lab and at the National Synchrotron Light Source, the five have learned laboratory techniques and cooperative working habits. They've also learned sign language from Jungheim, who is hearing impaired. Though a manual alphabet poster hangs on the lab's storage refrigerator, no one seems to need it.

"The hardest part of working together is not communicating — it's keeping out of each other's way," Heese said. "But we manage by ducking and dodging," she added, as others grinned.

Laster's charges will soon head back to prepare for graduate or medical school or, in Hutchinson's case, to apply the summer's learning to new lesson plans.

"Each one is going back enriched. They've acquired both technical knowledge and skills and a fine sense of belonging to a heterogeneous group," she said. "They've gotten so close to one another. It's just beautiful."

— Kara Villamil

Have a BNL Beach Party With New Summer T-Shirts!

Be the first on your block to own the brand-new BNL Summer 1993 T-shirt! The extra-large shirts are light gray with a crazy cartoon depicting summer student life, drawn by RHIC student Kerry Kuehn and titled "BNL Beach Party." At only $9 per shirt, this is a great way to remember a summer of sun, fun and science!

Paid orders for the first printing of 60 shirts will be taken on Monday, August 10, in the Public Affairs Office, Bldg. 134 (enter on Brookhaven Avenue), beginning at 9 a.m. Students and teachers leaving BNL that week will be given preference, and shirts will be available Tuesday morning. If they sell out, a waiting list will be started for the next batch, available within several days. For more information, call Kara Villamil, Ext. 5658.

Dwight C. Brown Memorial Scholar

Elise Vestal, a participant for her fourth year in a summer program for high school students offered by the Office of Educational Programs, is the 1993 winner of the $500 Dwight C. Brown Memorial Scholarship. Presented annually since 1985 by the Afro-American Culture Club, the award honors the club's founder, the late Dwight Brown.

Including this one, Vestal has won 10 scholarships toward her college education. She will enter Hampton University this fall, where she plans to major in psychology. As the daughter of Alvin Vestal Jr., Supply & Materiel Division, Elise Vestal was awarded an AUI Scholarship this April. She is also the stepdaughter of Donna Vestal, Reactor Division; and granddaughter of Alvin Vestal, Central Shops Division, and Grace Vestal, Computing & Communications Division.

For the third year in a row, Elise Vestal is working for BNL's Health Promotion Program, as part of the Biomedical Research Apprenticeship Program sponsored by the National Institutes of Health. Following her graduation from ninth grade, she spent her first summer at the Lab as a member of the Minority High School Apprenticeship Program.

Experience Pays

Most employees are familiar with the Lab's summer job lottery, which gives students the opportunity to work at the Lab, largely in custodial and clerical positions, and to gain work experience.

But one former summer custodian, Jeffrey Fort, son of Ann Fort, Department of Advanced Technology, used his experience to go one step further.

A Suffolk Community College student, he was accepted into a summer semester program at Disney World in Orlando, Florida, that combines his janitorial skills with seminars and fits in nicely with his ambitions.

As Ann Fort wrote: "I believe that if it had not been for the BNL Summer Lottery, and the experience that Jeffrey obtained from working here, he would not have been chosen for this program. Jeffrey has always wanted to be a cartoonist/illustrator for Disney Studios, and though he is working on the custodial staff, he has the opportunity to visit the MGM studios, speak with the cartoonists and discuss what is expected of you as an employee of the Disney Studios. Maybe this could be his chance. Thanks BNL!"

Cooperating for Summer Discoveries

Peering at a computer screen, three participants in the two-week U.S. Department of Energy (DOE) High School Honors Research Program examine chemical samples' composition by looking for energy peaks that are the signatures of specific elements.

Brian Toone (left), Alabama's representative, will work with Tanya Mazur of New Hampshire and James Platt of New Jersey this weekend to complete their investigation. Chemist Yung Yee Chu and Research Collaborator Seymour Katcoff, Chemistry Department, and assistant Adam Daly are helping the students with this particular experiment.

The team will present its findings on Monday, August 9, in the Hamilton Seminar Room of Chemistry, Bldg. 555, along with nine other groups of DOE students working on five other experiments at the National Synchrotron Light Source and in the Department of Applied Science.

Those interested may attend the oral presentations, which will run from 9 a.m. to noon and will culminate the 59 students' experience at BNL.

Apple Center Closes

Custom Computer has closed the on-site Apple Macintosh computer center formerly located in the Computing & Communications Division, Bldg. 515. The closing coincides with the retirement of Custom Computer representative Mike Borowski. His interactions with BNL have been assumed by Dennis O'Connell, who will operate out of the corporate office in Hauppauge and can be reached at 582-6699, Ext. 206.

You Can Still See *Crazy For You*

If you were disappointed by the cancellation of BERA's trip to New York City to see *Crazy For You* on Broadway, here's a second chance: The Long Island Chapter of the American Nuclear Society has tickets available for a bus trip on Wednesday, August 18, at $83 per person.

The trip includes a short tour of New York City, lunch in the heart of Chinatown at the Mandarin Inn and tickets to the 2 p.m. matinee. The bus will depart from the Radisson Plaza Hotel in Melville at 9:30 a.m. and return there directly after the show. Contact Terry Maugeri, Ext. 5980, for tickets or further information.

ANS Meeting

Andrew Kadak, President and Chief Operating Officer of Yankee Atomic Electric Company, will speak on "Is Technology Enough — What About Management?", at a luncheon meeting of the Long Island Section of the American Nuclear Society (ANS), on Tuesday, August 17, at noon, at the Radisson Plaza Hotel, Melville.

Kadak will be introduced by Robert McNair of BNL's Reactor Division. For reservations, call Julie Tuber, Ext. 2513, by Friday, August 13.

Arrivals & Departures

Arrivals

Stefan Boettcher ..... Physics
Jean-Marc Brot ..... NSLS
Ruoyan Chen ..... Chemistry
William S. Graves ..... NSLS
Dongfeng Pan ..... Chemistry
Jinsong Sheng ..... Biology

Departures

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

Louis W. Blum ..... AGS
Ronald L. Clipperton ..... AGS
Jose A. Sanchez ..... App. Science

Note to Employees:

Attendance at lectures, meetings and other special programs held during normal working hours is subject to supervisory concurrence.

Cafeteria Menu

Monday, August 9

Soup: Thyme-scented lentil	.80/1.10
Entree: Baked pork chops w/veg.	3.75
Fitness: Vegetable lasagna w/veg.	3.35
Carvery: Pastrami sandwich	2.95
Grill: Reuben platter	2.95
Fitness Salad: Tuna platter	

Tuesday, August 10

Soup: Minestrone	.80/1.10
Entree: Spaghetti w/red clam sauce	3.45
Fitness: California chicken w/veg.	3.65
Carvery: Roast beef sandwich au jus	2.95
Grill: Spanish omelet w/fries	2.35
Fitness Salad: Chef's seafood bowl	

Wednesday, August 11

Soup: Beef & vegetable w/rice	.80/1.10
Entree: Shrimp chow mein over rice	4.25
Fitness: Oven crisp chicken w/veg.	3.45
Carvery: Baked Virginia ham sandwich	2.95
Grill: Italian cheesesteak w/fries	2.95
Fitness Salad: Fruit w/low-fat cottage cheese	

Thursday, August 12

Soup: Mulligatawny	.80/1.10
Entree: Baked liver & onions w/veg.	3.45
Fitness: Vegetarian green peppers	3.45
Carvery: Corned beef sandwich	2.95
Grill: Monte Cristo platter	2.95
Fitness Salad: Cantaloupe bowl	

Friday, August 13

Soup: Seafood chowder	.80/1.10
Entree: Beef w/green peppers & onions	3.85
Fitness: Display cooking special entree	
Carvery: Hot turkey sandwich w/gravy	2.95
Grill: Fried clam boat	3.25
Fitness Salad: Grilled chicken platter	

Burger, Deli & Taster's Bar specials daily.

Film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Astronomical Society

The BNL Astronomical Society will host an observation night to view the Perseid meteor shower on Wednesday, August 11, starting at 8:30 p.m, at the Observatory. Bring a blanket or chair for best viewing. Contact Keith Power, Ext. 5355, for information.

Softball

League 1*		League 3*	
Phoubars	11-3	Lunatechs	9-2
Up & Atom	7-7	Medical	9-5
Blue Jays	6-6	Surefire	7-5
Ravens	6-8	Bombers	5-5
Six Pax	6-8	Quantum	3-6
Magnuts	4-8	Feds	0-9
League 2**		**League 4***	
Cocoon	10-1	Sting Rays	13-0
Revised Edition	10-3	Snakebites	10-3
Dirty Sox	7-3	Simply Awesome	8-4-1
Titans	5-5	Personnelities	6-7
Scram	5-7	Just 4 Fun	5-8
Phase Out	4-6	Roustabouts	5-9
Big Sticks	4-6	Park Ave.	3-9-1
Older Butt Wiser	3-7	Molson Express	2-12
Lights Out	3-7		
Hy Tech	2-8		

League 5*			
Goodtimers	11-2	Source	5-7
Worst to 1st	10-4	Lead Bottoms	4-8
Varmints	9-4	Skeleton Crew	3-10
What's on 2nd	7-6	Wellheads	2-10

**as of 7/30 **as of 7/23*

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, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

SCIENTIFIC RECRUITMENT - Candidates may apply directly to the department representative named.

ASSISTANT PHYSICIST - Trained in accelerator rf and controls theory, with experience in accelerator operations, to participate in the AGS rf upgrade to higher intensity and assist in the development of a longitudinal damping system for coupled band instability. Contact: Derek Lowenstein, Alternating Gradient Synchrotron Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD 6150. DESIGNER POSITION - Requires the ability to perform mechanical design functions, with a working knowledge of engineering fundamentals, machine design, shop practices, welding and vacuum systems. Must be familiar with ANSI Y14.5 - 1982. Will be responsible for design projects from conceptual layouts to detailed working drawings. Experience with AutoCAD, and DOS and/or UNIX necessary. Alternating Gradient Synchrotron Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 2724. ENGINEERING POSITION - Requires a bachelor's degree in an engineering discipline or equivalent, and broad experience implementing energy management programs. An in-depth knowledge of energy systems, energy-management controls and metering instrumentation also required. A master's degree and professional engineering license desirable. Will be involved in energy audits and surveys; energy conservation measures; energy-conservation measure feasibility; and project formulation and implementation. Plant Engineering Division.

Motor Vehicles & Supplies

91 MERCURY TRACER LTS - a/t, ac, 4-dr., 1991 *Road & Track* 10-best list, excel. cond., $8,995. Eric, Ext. 5875.

90 MAZDA 626 - 52k mi., 4-dr., 5-spd., p/s, p/b, p/w, p/sunroof, excel. cond., asking $7,500. Eileen, Ext. 4519 or 744-4288.

88 VW JETTA GL - black, 5-spd., am/fm cass., p/s, p/b, 100k mi., orig. owner, excel. cond., $2,800 firm. Ext. 2828 or 758-8221.

87 MITSUBISHI CORDIA - 2-dr. sedan, silver, 4-cyl., a/t, v.g. cond. in/out, runs well, $3,500. 821-4790.

87 NOMAD TRAVEL TRAILER - 19', sleeps 5-6, self-cont., bathrm. w/tub, refrig./freezer, 4-burn stove w/oven, 2/30 lb. LP tanks, more, $5,100. 929-8105.

86 LEBARON GTS - 4-dr. h/b, Sport Turbo Premium, all opt., Clarion audio sys., int. leather, low mi., new brakes & tires,$5,800. Ann, Ext. 5740 or 744-8386.

86 MAZDA B2000 SE5 - white, 4-cyl., 5-spd., bed liner, sliding rear window, 113k mi., runs well, excel. in/out, $1,700. Pat, 399-3211.

86 MAZDA 626-LX - ac, a/t, cruise, am/fm cass., 93k mi., good cond., $2,250. Persky, Ext. 4369/4372 or 758-5209.

86 OLDS CUTLASS CIERA - 6-cyl., 4-dr., a/t, ac, am/fm, p/b, 83k mi., excel. cond., asking $3,100. Alex, Ext. 3723/4407 or 341-1018.

86 TOYOTA CAMRY - 5-spd., ac, 82k mi., v.g. cond., $4,000. Mireille or Marc, 341-1010.

86 CITATION TRAILER - 25', sleeps 8, awning, TV antenna, lg. refrigerator, am/fm stereo cassette, side bunks, $6,000 neg. 286-1762.

85 MAZDA - white, new brakes, rotors, needs catalyic converter, dependable, asking $2,000 neg. Ext. 3604.

85 PONTIAC GRAND PRIX - 106k mi., 30k mi. on new transmission, $1,800. Brian, Ext. 2369 or 929-5407.

84 BUICK SKYHAWK - 5-spd., m/t, good cond., $1,000. 727-0547.

84 BUICK LE SABRE - 125k mi., V-8, new exhaust, shock abs., tires, excel. cond., runs well, $2,000 or best offer. Jean-Michel, Ext. 7092.

84 MERCURY GRAND MARQUIS - 87k mi., loaded, excel. cond., $2,800. Jerzy or Elizabeth, Ext. 4331.

82 TOYOTA SUPRA - black, loaded, 5-spd., well maint. $2,500. Donna, Ext. 3163.

78 DODGE DIPLOMAT - 318 V-8, 4-dr., a/t, 100k+ mi., reblt. trans., new rad., needs rear end work, first $150 takes it. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

67 CHEVY CHEVELLE - conv., rebuilt 283 cu., 4-spd., new top, buckets, console, gauges, tach., orig. owner, all paper work. Bob, 924-6018.

67 MUSTANG - white, mint, must see; '87 Hyundai, gray, 5-spd., needs clutch work, $1,500 or best offer. Wayne, 698-2798.

66 HONDA 160 MOTORCYCLE - v.g. cond., $250. Pam, 821-4174.

PORCHE 911 CARRERA CABIOLET - conv., white/black top, leather, 35k mi., new brakes & Yoko-ZR-16 tires, extra set of Pirellis, $28,000. Jim, 289-0876.

RACKS - for 8'-bed truck, custom-made of heavy gauge steel by professional welder, freshly painted, excel. cond., $400. 589-2338.

WHEELS - 4, Mazda, alum. alloy, fits '88-'92, 626/MX6, excel. cond., $75/set. Artie, Ext. 5215.

TIRES - 2, P195/75R14, steel-belted, on rims, excel., $30 neg.; 3 Jeep rims, 15" with P205/75R15 tires, $20 neg.; '84 Mustang parts to trade. Joe, Ext. 3120.

TIRES - 4, 185/70R14 Firestone, $100; 2, 155R12 M&S, $50; 1, 225/75R15 M&S, $25; 1, 185/70R14, $20. 924-8213.

TIRES - 4, on Ford truck rims, P235/75P15, 480. Brian, 878-4356.

Boats & Marine Supplies

36' HUNTER SLOOP - 1980, very clean, specs. available, in Mt. Sinai, ask. $38,000. Bill, Ext. 2434.

22' CATALINA SLOOP - 7.5-h.p. Honda, excel. cond., $5,500. 589-5490.

22' THOMPSON - 1986, 190-h.p. Merc. Cruiser i/o, 8' beam, full canvas, cuddy, in water, asking $5,900. Sue, Ext. 7235 or 395-3529.

17' HOBIE CATAMARAN - roller reefing jib, aluminum trailer, good cond., $2,000. Ext. 7657.

17' WELLCRAFT - center console, 90-h.p. Johnson, trailer, asking $4,300. 878-1617.

8' DINGHY - wood pram, oars, bronze oarlocks. 286-3675.

SUNFISH - good cond., $475. 286-0001.

WINDSURFER - HiFly 600, fully equipped, ready to sail, $250. Gwyn, Ext. 7529.

WINDSURFER - Mistral Maui, beginner/intermediate, 2 sails, extras, excel. cond., $500. Scott, Ext.

Tools, House & Garden

BRICKS - over 400, used, red, reasonable. Marlene, 744-5801.

GENERATOR - Generac, 4kW, 110/220, gas powered, asking $250. 473-3398.

LATHE - woodworking, w/stand, tools, perfect cond., Nancy, Ext 4177 or 289-0072 eves/wknds

REAMERS - carbon steel, straight flute 2-piece set, ¼ to 1 ¼ custom wood case, $45. Steve, Ext. 4555.

SHINGLES - black, approx. 30 bundles, $3/bundle or make offer. Joe, Ext. 3120.

STAIR-O-LATOR - chair lift, ⅓, h p., fits on side of existing stairs, best offer. Ray, Ext. 3695.

Miscellaneous

GAS TANK - 6 gal., w/gauge, $20. Len, Ext. 3554.

CONCERT TICKETS - Jones Beach, Rod Stewart, Jethro Tull, Bob Dylan & Santana, all face value. Augie, Ext 3884.

WEDDING GOWN - white, sophisticated sheath, size 10, lace, satin, pearls, sweetheart neck, magnificent train, excel. cond., $400. Sue, 924-2062.

Free

AIR CONDITIONER - 5,000 Btu window unit, works. Dennis, Ext. 4218 or 929-5914.

WINNER RUNABOUT - 18' hull, you haul. 286-3906.

Car Pools

BALDWIN-WANTAGH - van pool traveling on Southern State Parkway w/stops at Exit 20 and 28, space avail. Ken, Ext. 5296.

BOHEMIA-E.ISLIP-OAKDALE-SAYVILLE - need 1 more driver. Frank, Ext. 2314.

Wanted

BABY-SITTER - on-site, for 5 yr. old, 9/1-3, will supply lunch and snacks, 8-5:30 p.m. Heather, Ext. 3071.

BABY-SITTER - German speaking. Stas, Ext. 7849.

BACK ISSUES - of *Ms.* magazine. Steve, Ext. 4627 or 928-6469.

DOOR - for '84 Mustang, any color, good cond. Joe, Ext. 3120.

PIANO - Steinway, grand, any cond. Ext. 5400 or 878-6098.

RIDE - for summer student, from Syosset-Woodbury area to Lab, willing to pay. Siva, Ext. 3064.

SPOTTING SCOPE - inexpensive with or without tripod. Ext. 7014.

TIRES - P205/75R14, good to excel. cond. Susan, Ext. 7647.

WASHING MACHINE - in good working order; area rug to match gold couch. Morris, Ext. 4192.

Services

*Services are listed in the first **Bulletin** of every month as a courtesy to BNL employees. They are neither screened nor recommended by the **Bulletin.** Services forms are available in the **Bulletin** lobby, Bldg. 134.*

ANIMAL SITTER - animal-loving 10-yr.-old will treat your pets like my own while you're away. Kate, 929-5945.

BABY-SITTER - exp. mother will care for your child in my home, snacks provided, Rocky Point area. Lorijean, 744-5857.

BABY-SITTER/MOTHER'S HELPER/NURSE'S AIDE - will clean, food shop, cook, sensitive and reliable. Lorraine, 924-3910.

BRICKWORK - masonry, patios, walks, swimming pools, retaining walls, landscaping ties, Belgium block, 25 yrs. exp., Lab disc. Tony, 698-9274.

CARPET/UPHOLSTERY CLEANING - spot, pet stains, odor removal, auto interior, fabric protector, free est., Lab disc. Jerry, 874-8259 days.

CENTRAL AIR CONDITIONING - installed, free est. John, 467-5827.

CHILD CARE - exp. & responsible mother will take care of your child at my Coram home, near Lab, very reasonable. 331-0807.

CHILD CARE - 13 yrs. exp., infants, toddlers and up, 4 mi. from Lab, refs. including Lab personnel, reasonable. Dolores, 821-1558.

CHIMNEY SWEEP - fireplaces, wood, coal & oil flues, stainless steel caps, glass doors and screens, Lab discount. Mike, 821-5526.

COUNSELING - exp. licensed CSW will help w/individual, marital or family problems, confidentiality guaranteed, insurance reimbursable. Linda, 929-5860.

DJ/MC - party & dance music from 40s-90s, all occasions, music & entertainment personalized for your affair, BNL refs. Lou, 698-8210.

ELDERLY CARE - on weekends in their home, I give TLC and stay overnight, a break for the family, reasonable. Susan, 286-4225.

HOME CARE - complete services, repairs, cleaning, video & inventories, honest & reasonable. 878-1178.

HOUSE CLEANING - reasonable, very efficient, refs. Marty, 399-3496 any time.

HOME IMPROVEMENTS - quality work at great prices, all work guaranteed, licensed, insured, free est., Lab disc., professional, no obligation. Ron, 281-6007.

HOME IMPROVEMENT - carpentry, drywall, spackling, painting, plumbing, ceramic tile, storage sheds, free estimates, Lab disc. Don, 744-2921 after 5:30 p.m.

HOUSE CLEANING - honest, reliable, hardworking, only two openings left. Sande, 924-3385.

JEWELER - special orders, repairs, honest, affordable, no job too large or small. Kelly, 821-5239.

KAYAK - lessons, touring, river playboats, $80/5 hrs., equip. supplied, intro to kayaks, $25/2 hrs. Ernie, 281-7873.

LAND CLEARING - trees, stumps, brush removed, topsoil graded and raked w/450 loader, $70/hr. Tom, 878-1060.

LANDSCAPING - Three Village area, all aspects of lawn maintenance avail., free est. Tim, 474-4672.

LAWN SPRINKLERS - automatic, free est., professional layouts, repairs, alterations and additions, prompt, courteous service. Lou, 928-7042.

LOCKSMITH - sales & service, 10% Lab disc., keys cut during lunch. Pete, 399-2813 after 5 p.m.

MAILBOXES - post and house, distinctive designs and colors, free catalog, Lab disc. Mike, 821-5526.

MARINE SERVICES - boat cleaning, waxing, restoring, marine electronics installed, very reasonable rates., est. Artie, 981-3468.

PAINTING - interior/exterior, power washing, staining, bleaching, free est. Eddie, 399-5701.

PAINTING - interior/exterior, Sheetrock, taping, spackling, staining, polyurethane, power washing, gutters, roofing, insured, refs. James, 399-4912.

PAINTING - licensed, insured, interior/exterior, power washing. Cassella, 467-5661.

PARTY TENTS - we set up and take down. Fred Kuehl, 588-2268.

PRESSURE CLEANING - decks, vertical, cedar, vinyl siding, shakes, masonry, driveways, patios, pool areas, more, free est. John, 727-1140.

SHEETROCKING - and spackling, free est. Kevin, 563-9855.

SILK SCREENING - will design and print custom shirts at reasonable prices. 331-4525.

SKYLIGHTS - complete, prof. service, cleaning, preventive maint., installations. Joseph, 874-8259.

VIDEOGRAPHER - capture those precious moments on video, will tape weddings, parties, all occasions. Larry, 281-7240.

WINDOW CLEANING - all work squeaky clean, reliable, refs. 928-3189.

WOODWORKING - custom design, yours or mine, entertainment centers, tables, dressers, bookshelves etc., refs. avail upon request. Phil, 722-3010.

In Appreciation

Thanks to my friends in SEP Bldg. 129 for your caring and generous donation on my recent loss.
— Jeff Williams

Ads left out of this issue due to lack of space need not be resubmitted to appear in the next issue.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.