



BNL Director Nicholas Samios greets participants at the Microbunches Workshop with opening remarks.

Roger Stoutenburgh

NSLS Hosts Meetings Here & There

Here: Large Bunch of Physicists Takes a Look at Microbunches

It was a large group of accelerator physicists who met at BNL September 28-30 — nearly a hundred. But the topic of their meeting was small: bundles of electrons less than a millimeter in length.

These microbunches, as they are called, are key to the future of accelerator physics, including linear accelerators and fourth-generation synchrotron light sources.

At the Microbunches Workshop organized by Eric Blum and James Murphy, National Synchrotron Light Source (NSLS), participants from all over the world discussed the production, beam dynamics, measurement and uses of microbunches at current and future facilities.

It was the first meeting devoted exclusively to ultrashort electron microbunches, which are valued both for their performance in assessing accelerator beam dynamics and for the coherent radiation they give off at wavelengths shorter than the bunch length. In the latter use, the electrons in each bunch emit synchrotron light in concert, giving a huge jump in intensity.

Among the speakers were Toshiharu Nakazato, of Japan's Tohoku University, the discoverer of coherent synchrotron radiation, and Jean-Louis Laclare, of the European Synchrotron Radiation Facility (ESRF) in Grenoble, France, who discussed short bunches in the ESRF storage ring.

Also at the meeting, Blum discussed BNL researchers' efforts to use the Source Development Lab in Bldg. 729 to compress bunches from one milli-

meter to 100 microns (thousandths of a millimeter). NSLS scientists and engineers are also working to upgrade the XLS storage ring at the NSLS, with hopes of making 300-micron microbunches that could emit coherent synchrotron radiation.

— Kara Villamil

Mary White Named ISD Manager

Mary White has been named Manager of the Information Services Division (ISD), with her three-year term effective November 15. White had been Acting Head of ISD since July.

Deputy Director Martin Blume commented, "As acting manager, Mary has made significant progress in integrating the Research Library with the operations of Photography and Graphic Arts [P&GA], and she has achieved a smooth transition in financially challenging times."

ISD's staff of 57 works closely with the Laboratory's numerous departments and divisions to prepare and disseminate scientific and technical information. Established last February, ISD oversees Brookhaven's Re-



Mary White

Roger Stoutenburgh

search Library; records-management, publications, video, photography, photocopy, graphic design and composition services; and database support.

The Research Library and the six departmental libraries it serves collectively contain 74,000 volumes. In early 1996, the Research Library's collection is expected to increase by about 20,000

volumes because the U.S. Department of Energy (DOE) recently chose BNL to be the federal laboratory that will acquire the Superconducting Super Collider Library.

New Challenges, Technologies

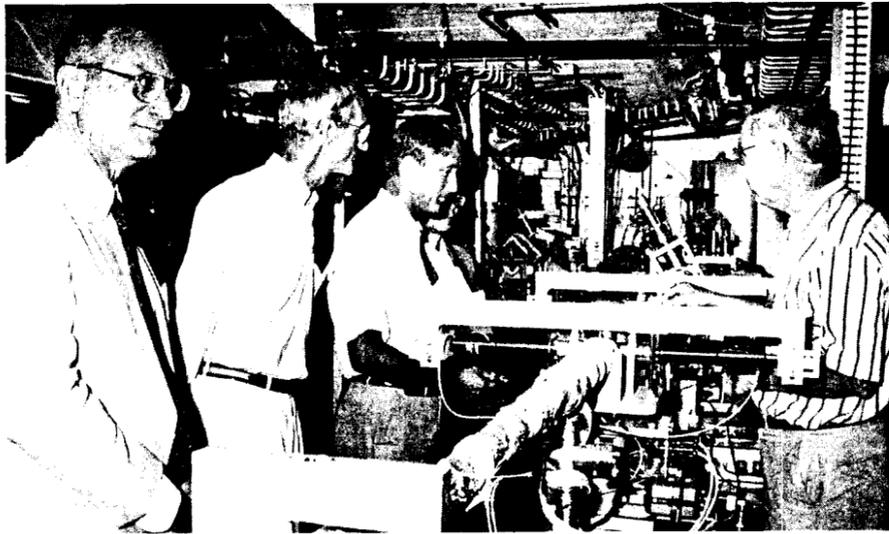
Another challenge for ISD is to reduce overhead costs. "ISD is in the pro-

(continued on page 3)

There: FEL Developers and Users Convene in New York City

One highlight of the 17th International Free Electron Laser (FEL) Conference and 2nd International FEL Users Workshop, held August 21-25

at the Marriott Marquis Hotel in New York City and hosted by BNL's National Synchrotron Light Source (NSLS), was a trip to BNL to tour the



Visitors from the 17th International Free Electron Laser (FEL) Conference and 2nd International FEL Users Workshop stopped at BNL's Accelerator Test Facility (ATF), where research on coherent interaction between laser light and electron beams is taking place. With them are (left) ATF head Ilan Ben-Zvi and Arie Van Steenberg (right), who was spokesman for an ATF inverse free-electron laser experiment.

Roger Stoutenburgh

NSLS and its associated facilities where research and development of the next generation of light sources are ongoing.

The conference was co-chaired by Ilan Ben-Zvi, an NSLS physicist who heads BNL's Accelerator Test Facility (ATF) of the Center for Accelerator Physics, and NSLS Deputy Chairman Samuel Krinsky; the user workshop was co-chaired by Erik Johnson, project manager of the NSLS Source Development Laboratory (SDL), and Vanderbilt University's Glenn Edwards.

Held simultaneously to allow radiation-source developers and users to interact, the meetings drew 267 attendees from 15 countries; more than 300 papers were presented on advances in FEL technology, including the development of a short-wavelength FEL and high-power devices at longer wavelengths.

At BNL for half a day, the workshop contingent visited the experimental floors of the NSLS, the ATF, the magnetic measurement laboratory and the SDL, where an ultraviolet FEL is being developed. — Marsha Belford

Groundwater Remediation at BNL Subject of Next Public Meeting

Groundwater remediation at the southern border of the BNL site will be the subject of the next public meeting to be held at the Lab, on Tuesday, January 16. The meeting will begin at 7:30 p.m. at Berkner Hall, and the public is invited.

The area that the meeting will focus on is located in the southeast section of the Lab property and includes two inactive landfills, a waste-management facility, and an area of groundwater contamination that had been initially remediated by a spray-aeration technique.

During the meeting, BNL staff will present monitoring data from the area and discuss what the data mean in regard to public health.

In some of the wells that have been drilled to monitor groundwater along BNL's southern border, the Lab has found chemical contamination, with the highest concentration at depths that are below typical residential wells.

This fall, the Suffolk County Department of Health Services, in cooperation with BNL, began to sample domestic wells south of the Lab's property, for both chemical and radioactive contamination. To date, the county has collected samples from more than 200 residential wells, and chemical analysis has been completed on 148 of those. Three had chemical contamination at or above the New York State drinking water standards.

According to Bill Gunther, Manager of BNL's Office of Environmental Restoration, the county has advised the Lab that the contamination in one

of these three wells is not likely to be due to BNL operations. "The other two wells, however, contain a common solvent, so it's not clear what the source is," said Gunther. BNL has offered bottled water to these two homes, he added.

Of the same 200 residential wells sampled to date by the county, 114 have been analyzed for radioactive contamination. All meet the New York State Drinking Water Standard.

Over the course of the next few months, the county will continue to sample residential wells south of BNL, in an area approximately bounded by River Road on the west, Brookhaven Airport on the south and Wading River Road on the east. In all, about 800 wells will eventually be sampled.

Analysis for volatile organic compounds, metals and other contaminants is done by the county. The county then sends the samples to BNL and to the New York State Health Department in Albany for analysis of tritium, a radioactive isotope of hydrogen. Complete analysis takes about six weeks, and the homeowner is notified of the results.

More sampling results will be available by the January 16 public meeting. Documents pertaining to that meeting will be available beginning January 2 in BNL's Research Library, Bldg. 477, as well as in public libraries in Shirley and Middle Island. The public comment period is 30 days, from January 2 through February 2.

— M-

Retiree Marilyn McKeown Celebrates 70th Birthday in Style — Runs New York City Marathon With Eight BNL Friends

The New York City (NYC) Marathon that ran on Sunday, November 12, went down in the record books as having the coldest weather — 40 degrees at the start with wind gusts up to 55 miles per hour — in the history of the 26-year-old race. But, another record — one more important to Brookhaven — was also set during that 26.2-mile endurance test: BNL retiree Marilyn McKeown and eight of her women friends from the Lab all completed the course in honor of McKeown's 70th birthday.

Because of the weather, "I felt that I had to use every bit of determination that I had to finish, but I knew I was going to finish because I didn't want to let all that training go to waste and I couldn't let my friends down," says McKeown, who retired from the Physics Department as a computer analyst in 1989. Of this, her fourth run around the boroughs, McKeown says, "I had all the confidence in the world that, despite the weather, we would all finish — and we did."

With a time of 6:15, McKeown placed seventh out of the 16 women in her age group, which is 70-79.

McKeown's eight running friends are: Sheryl Carey, Safety & Environmental Protection (SEP), who finished in 4:45; Joan Congemi, a former employee of the Department of Applied Science, 4:44; Michele Rabatin, Department of Advanced Technology (DAT), 6:03; Pat Rogers, Upton Post Office, 5:30; Sharon Spark, retired from the Information Services Division, 6:52; Joyce Towell, SEP, 6:10; Wen-Shi Yu, DAT, 3:40; and Sharon Wang, Management Information Systems Division, 4:31.

In addition to support from their families, McKeown and her running buddies received major encouragement from four other BNL women runners, who also trained with them: Nicole Bernholz, SEP; Ronnie Evans, Computing & Communications Division; Rita Kito, Director's Office; and Swapna Mukherji, Plant Engineering Division.

Though not part of McKeown's birthday celebration, two other BNL roadrunners went the distance in New York: Phil Plunkett, Reactor Division, and his wife Amy Plunkett, who finished in 4:15 and 5:55, respectively.

"We'll Do It With You"

The idea that the women would all run the NYC Marathon on a cold day in November 1995 was conceived on a warm day in the summer of 1994 on the beach at Wading River, when McKeown thought out loud, "Maybe, for my 70th birthday, I should run the New York City Marathon."

Actually, McKeown had enlisted for the 1994 marathon with Evans, but decided to turn down the opportunity, which automatically put them in the running for the race in 1995, the year when McKeown would become a septuagenarian on May 30.

Most all of the women who eventually went the distance heard her, as they were on the sand that day at a beach sleep-over party that Carey organized annually for her women friends. As Rogers recalls, "Oh, we'll do it with you," we all said, not really thinking about what we were getting ourselves into."

They started getting themselves in gear after the Newsday Half-Marathon in May 1995, and, by June, five of them — Bernholz, Carey, Congemi, Towell and Yu — learned that their NYC Marathon applications had been accepted. Meanwhile, knee problems forced Evans to decline her invitation



Marilyn McKeown (front, center), with some of the BNL women who ran the New York City Marathon with her, in honor of her 70th birthday: (back, from left) Sharon Spark, Sharon Wang, Joyce Towell, (front, from left) Pat Rogers and Sheryl Carey. Missing from the picture: Joan Congemi, Michele Rabatin and Wen-Shi Yu.

Photo by Roger Stoutenburgh

again by the August deadline.

In early August, McKeown had sprained her ankle treading on a walnut, but quickly recovered. Besides running distance, she was cross training on her bicycle. "Doing hills, especially one weekend in the Catskills, helped," she remarks.

The others — Rabatin, Rogers, Spark and Wang — kept training with their fingers crossed, hoping to get in the race through a lottery held in August. But, when they didn't win starting places, they asked Diane Hatton, Chemistry Department, who is President of the BNL Roadrunners Club, in September to write to the Marathon Appeals Committee of the New York Roadrunners Club on their behalf.

Training continued, despite the fact that "it was so boring," states Spark, and all agree.

Adds Wang, "Getting up at 5 a.m. on weekends to do long runs was quite a challenge, but running together made the long, hard distances much more tolerable." By the end, weekend runs were lasting 20 or so miles.

Hatton's appeal worked. But then, a month before the race, Bernholz was forced to stop training for health reasons. "Overcoming all the obstacles — bureaucratic, physical and emotional — to run this race created an unbelievable camaraderie among us, so I really regretted not being able to run the marathon with them," she says.

Cold, Crowded Start

The day before the big race, the nine met at Ronkonkoma to take the 11:06 a.m. train to NYC. "Though we had all heard the weather report and had taken warm stuff, we were not totally prepared for how cold it was," admits Carey.

So, between picking up their numbers at the New York Colosseum and eating pasta at a complimentary party at The Tavern on the Green, they all went to a sports store to purchase headbands and other warm gear.

After a fitful night in various hotels and apartments, the BNL women's roadrunning team converged at 45th Street and 6th Avenue at 6:30 a.m., to catch a bus that would convey them to the Staten Island start at the foot of the Verrazano Narrows Bridge to Brooklyn.

They were let off in the middle of a muddy field that was the race staging

area. Sitting behind the portapotties, under the only available shelter left, wearing garbage bags to protect them from the elements, "We looked like homeless people," says McKeown.

Three hours later, told to put the belongings that they wanted to reclaim at the end of the race on a bus, the group got split up, though most of the running partners remained together for the start.

"It took us 25 minutes to get to the first mile because you just stood there, waiting for the runners in front to get moving," reports Rabatin. "Then, as soon as we got going, all the garbage bags and sweatshirts that were tossed at the start came flying at us."

One plastic bag that swirled underfoot caused McKeown, who had started with Spark, to fall on the bridge deck, but, unhurt, McKeown was able to continue.

"Getting over that bridge was so much work: The wind was at our backs, pushing us too hard and too fast, so you felt out of control, especially going downhill. I felt like I had already done a marathon after only two miles," reports Spark.

Over the bridge with Carey and Congemi, Towell began experiencing pain in her right knee around mile three. By mile five, she knew she could not keep up her companions' pace.

"Leaving Joyce was very emotional," says Carey. "I started crying, telling her, 'I can't leave you,' but she said go ahead. So we ran ahead, but then came back. The third time we came back, she said 'Go, go, go on: I'll be OK; don't worry about me,' so we left her, but it was very hard."

"The last month in training, my knee had been going out, so it wasn't unexpected, just disappointing," says Towell, who ran-walked the majority of the distance with an airline stewardess, "whom I got to know well."

"At first, Michele and I were each going to do our own thing, but, seeing all these people, we got scared, so we stuck together," remarks Rogers. "But, halfway through, we got over it, so we decided to run our own pace."

"At mile 13, I remember thinking that I have one shot at this, and I am not going to waste all that training. I actually felt more comfortable running the second half than I did the first and, after getting a knife to cut my sneaker open to free my toe at mile

18 in the South Bronx, I actually began passing people at the end."

Name in *The New York Times*

Entering Manhattan with a 60-year-old woman she met in the Bronx, McKeown was joined for the run at mile 24 by her daughter and son-in-law Kathy and David Cooper, and three grandchildren, ages 5, 8 and 10.

At mile 25, Evans, Kito and Mukherji, who had been handing out oranges and granola bars to the BNLers and others who went before McKeown, plus McKeown's tennis partner from Bellport, ran with the birthday celebrant from 59th Street to the finish line on 66th Street.

Over the line, McKeown received a bag of food, as did all marathoners, and a rose, as did all of the 6,000 women of the 28,000 runners who entered the race.

The last of the nine BNL woman over the finish line, Spark remembers, "I thought, 'I'm here, I'm going to finish — and I'm going to get my name in *The New York Times!*'" which publishes every finishers' results.

With the support from family, friends and coworkers before the race and the congratulations and gifts afterwards, "It was like being a celebrity," declares Rogers.

"We all said we wouldn't do it again, but who knows," muses Spark.

One thing that the women do know is: "If Marilyn wants to do this again for her 80th birthday, we all told her in that cold muddy field before the race that she would have to find herself younger friends!" concludes Rogers.

— Marsha Belford

United Way Drive: \$90,000 or Bust!

Only \$2,459 additional contributions have been received by BNL's 1995 United Way Fund Drive since last week, bringing the campaign's four-week total to \$76,490. That's still almost \$15,000 short of this year's goal of \$90,000.

"This campaign is going to continue until we reach our goal," said Fund Drive Chair Michelle Cummings.

Though the drive was originally expected to end today, with only 17 percent of BNL employees having sent in pledges, Cummings believes that leaving the drive's end date open will give the other 83 percent a chance to help other Long Islanders through the United Way. Cummings also reminds donors that they can elect to have their donations given to the United Way agency of their choice, including the Greg Persson Memorial Scholarship Fund, described in the Brookhaven Bulletin of December 1.

And, after reaping the reward of helping others, all new donors — along with those who returned pledge cards earlier — will be eligible for other rewards, like the \$50 gift certificates to local restaurants won this week by: Adele Di Biasio, Department of Advanced Technology; Gregory Hall, Chemistry Department; Marilyn Pandorf, Human Resources Division; and Walter Stoeber, National Synchrotron Light Source Department.

However, the grand prize drawing — a dinner-theater weekend for two in New York City — will not be conducted until the goal is met.

For more information, contact Cummings, Ext. 2077; Co-Chair Pete Esposito, Ext. 2879; or your group's United Way campaign captain.

Holiday Gift Ideas

BNL has three places on site where you can shop for holiday gifts:

BERA Sales Office

Located off the lobby in Berkner Hall, this store is open weekdays, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347. Items available include:

- **Film/photo processing**—by Employee Photo Service of Hackensack, New Jersey.
- **Merchandise:** all-occasion greeting cards; Mylar balloons, \$1.50 each; Long Island postcards; T-shirts, \$9; sweatshirts, \$15; backpacks, \$14; fanny-packs, \$8; BNL postcards, mugs, hats and buttons; restaurant discount-coupon books.
- **Tickets**—no-cost Magic Kingdom membership cards for Disney World, Epcot Center, Disneyland and MGM, good for discounts at local Disney stores; United Artist Theater discount tickets, \$5 each; discount passes to Great Adventure; Sesame Place, Hershey Park, Busch Gardens, Cypress Gardens, Sea World, Universal Studios.
- **Discounts & handouts**—Tofers for some Broadway shows; wholesale club information; discounts on brand-name cellular phones; and more.
- **Participation awards**—The BERA Sales Office is the official redemption center for BERA Participation Awards.

Science Store

Do your holiday shopping at the Winter Holiday Sales at the Science Store . . .



Last chance this year!
Today — December 15
10 a.m. to 3 p.m., Bldg. 701

Upton Post Office

Stamp collectibles are available at the U.S. Post Office in Bldg. 179. For more information, call Ext. 2539. The philatelic items include:

- **Stamp folios**—sets of four stamps on such diverse topics as love, flowers, popular and blues singers, the moon locomotives and Norman Rockwell, along with an attractive card describing the set, formerly \$4.95, now on sale for \$2.50;
- **Commemorative mint sets**—of stamps with their own informative hard-cover books, for years 1992 through the present;
- **Special mint sets**—including *World War II Remembered: 1944*, \$15.95; *Legends of the West*, \$24.95; *Legends of the Silent Screen*, \$24.95; *I Have a Dream: Martin Luther King*, \$17.95; *Wild Flowers*, \$21.95; *Letters From the Sand: The Letters From Desert Storm and Other Wars*, \$24.95;
- **Mammal poster**—of stamps and animals, \$4.95; and
- **Stampin'**—a lively game of stamp acquisition, for two to four players ages 8 to adult, \$13.95.

Mary White

(cont'd.)

cess of bringing P&GA to full-cost recovery," said White. "We are tailoring our services to meet our customers' needs and will be charging them fully for our services to reduce general and administrative fund expenses." In con-

New Telephone System Update

Training Scheduled in New Phone System

A group training session on how to use the new Siemens Rolm Communications, Inc., telephone system currently being installed on site is scheduled for next Thursday, December 21, at noon in Berkner Hall. Sessions will also be held in the new year, on Wednesdays, January 10 & 17, and Thursday, January 25.

Phones Slated to Change Over Next Week

In the order listed, the following buildings, which are served by node site 4 near Bldg. 725, will be switched to the new telephone system today, over the weekend and through the week of Monday, December 18, the second week of the changeover. Those to have digital service are listed in bold; those receiving analog service are in plain text.

Date	Building
Fri., Dec. 15	628, 636, 726, 727, 729, 728
Sat., Dec. 16	725
Sun., Dec. 17	725 continued if required.
Mon., Dec. 18	192, 212, 575, 580, 933, 935, 535
Tue., Dec. 19	815, 830, 817
Wed., Dec. 20	820A, 820B, 835, 836, 690, 754
Thu., Dec. 21	356, 603, 610, 650, 480

Inside Info

The Fire/Rescue Group of the Safety & Environmental Protection Division received a certificate from the Congressional Fire Services Institute for "Their Contribution to the Extinguishment of the Long Island Forest Fires of 1995." These were last August's Rocky Point Fire and the Westhampton, or Sunrise, Fire.

The certificate was signed by U.S. Congressmen **Curt Weldon** (Pennsylvania) and **Michael Forbes** (Long Island's first Congressional District), who are, respectively, co-chair and member of the Congressional Fire Services Caucus. Forbes wrote to BNL Fire Chief **James Roesler**:

I . . . commend you and the entire Brookhaven Lab Fire Department for the courage, bravery and perseverance demonstrated in combating the horrendous August brush fires. Each and every one of you saved our communities from the ravages of the worst fire in Long Island history and, on behalf of a grateful citizenry, I extend our heartfelt thanks. . . .

. . . It was this world class effort, by the best and the bravest, that brought an end to this disaster with a minimum of injuries and no loss of life. You made that possible.

You are all solid-gold, true blue American heroes. All of Long Island thanks you!

The Fire/Rescue Group also received a letter expressing gratitude on behalf of the Southampton Town Board

from **Richard Blowes**, the town's Deputy Supervisor, and a citation from **Action Long Island, Inc.**, citing "grateful appreciation for the heroic efforts" on behalf of the business community of Long Island.

In Memoriam

The following retirees passed away recently:

Carl C. Otto, whose almost 18 years at BNL were all spent in the Medical Department, died on November 4 at the age of 73. He joined the Lab on October 8, 1962, as a veterinarian services assistant II and retired on June 13, 1980, as a senior veterinary services assistant.

Shizuko Yagi, who retired from the Biology Department as a biology associate II on June 30, 1975, died on November 16. She was 85 years old. She had started in Biology on November 5, 1965, as a biology associate IV.

Richard G. Mayer, a water & sewage operator engineer in the Plant Engineering Division when he retired on April 10, 1982, died November 17 at the age of 76. He had joined the Lab's then Plant Maintenance Division on May 13, 1963, as a plumber A.

James C. Farrell, who spent all of his 35 years at BNL as a firefighter, died on November 17. He was 77. When he started at the Lab as one of the first employees, on March 21, 1947, firefighting was the province of the Plant Maintenance Division. By the time he retired on June 14, 1982, it had become a function of the Safety & Environmental Protection Division.

junction with this new policy, ISD is installing a new software program for estimating and tracking job orders.

In addition, White has organized an ISD Customer Focus Group for P&GA Services. "We want to make sure we meet our customers' needs," she said. "This group will provide feedback on the quality of our products and services, offer suggestions for improvements, and help us identify potential new services."

To keep up with today's information revolution, ISD is updating its technologies. "For example, we are working on networking the Docutech, our high-production copier, so that employees can transmit files to it electronically for duplication," White said. "We are also experimenting with CD-ROM mastering for data storage."

Other ISD initiatives include:

- making digital photography services available, thus reducing or eliminating the use of hazardous darkroom chemicals and allowing the Lab to qualify for DOE funds that support

the reduction of hazardous-waste generation;

- providing database support to the Lab community to help access to on-line library catalogs, and storage and retrieval of scientific, technical and selected other data needed by BNL staff and management;
- maintaining INFORM, the BNL information source that supports several large database applications, accessible from the Lab network as well as the Internet;
- overseeing BNL's existence on the World Wide Web, which establishes hyperlinks to Web home pages at the Lab and off-site scientific and technical information resources. ISD assists departments and divisions in creating and maintaining their home pages. In addition, ISD electronically transmits information about BNL research to DOE's Office of Scientific and Technical Information.

Envisioning the future of ISD, White said she will strive to achieve a "fully coordinated and integrated informa-

Tango Please! Or Care to Fox Trot?

Beginners are invited to learn to tango, in four 1-hour lessons at 6:30 p.m., on Wednesdays December 20, January 3, 10 and 17. On those dates, but at 7:30 p.m., advanced beginners will be taught to fox trot.

Sponsored by the BNL Ballroom, Latin & Swing Dance Club, the classes on December 20 have been moved to the South Dining Room of the Brookhaven Center.

The cost for each four-week class is \$17.50 per person. To register or for more information, call Marsha Belford, club president, Ext. 5053; or Ron Ondrovic, vice president, Ext. 4553.

Clinic to Take Over Employees' Lab Tests

As of January 1, responsibility for laboratory testing requested by employees' personal physicians will be transferred from the Clinical Research Center in the Medical Department, to the Occupational Medicine Clinic (OMC), also in Bldg. 490. To use this service, first call the OMC at Ext. 3670.

Microcomputer Club

The BNL Microcomputer Club will hold its annual holiday party on Thursday, December 21, at noon in the second floor large conference room of Bldg. 911. The party will feature many bytes of hard-sectored, large floppy disks (i.e., pizza pies). Also, Santa will distribute the latest club disk, containing several Windows programs and utilities.

All BNL employees who are interested in computers and wish to join the club, are invited to the party. Check out the club's World Wide Web page (<http://www.bnlmcc.bnl.gov/~bnlmcc>) to see what the club is about and offers its members. Annual dues are \$15.

For more information, contact Steve Stein, club president, Ext. 5694, or Bob Sabatini, treasurer, Ext. 3509.

Blood Count

To all those who donated blood, or tried to, in last week's Blood Drive: a sincere thank-you from Chair Susan Foster and the rest of the Blood Drive team — and especially from all those who will receive the gift of life from the 315 pints donated.

And a special thank-you goes out to the 31 people who, in addition to donating blood, agreed to have a small sample of their blood tested to become possible bone marrow donors in the future.

White earned her B.A. at the State University of New York at Cortland in 1971, then pursued graduate studies in romance languages and literature at the University of North Carolina. Her career started in the retail business, where she had been involved with various aspects of human resources, including training, recruitment and personnel management. She rose to Corporate Director of Training for Gimbel's, New York, before joining BNL in 1984 as Training and Development Administrator in the then Personnel Division. She became Manager of Training and Development in 1990, and then Manager of the Training Office in 1992. — Diane Greenberg

BROOKHAVEN BULLETIN

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Master Technology Management

To discuss the new master's program in technology management, Associate Dean George Pidot and two other representatives of the Harriman School for Management & Policy at the State University of New York at Stony Brook will be available in Berkner Hall from 11:30 a.m. to 1:30 p.m. on Wednesday, December 20.

The technology management master's is designed for working professionals who oversee the effective use of technology. This degree can be earned by attending classes one night a week and every other Saturday for two years, and completing an on-the-job summer project. A single fee includes tuition, books and meals.

For more information, call Pidot, 632-7171, or Marilyn Pandorf, BNL Training Office, Ext. 5251.

Amateur Radio Club

The BERA Amateur Radio Club will next meet on Thursday, December 21, at noon in the lounge of the Recreation Building in the apartment area, at which time club officers will be elected and the club's holiday party held.

All Lab employees, guests and licensed amateur-radio operators are invited. For more information, contact Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

Volleyball

Standings as of December 12

Open League		League I	
Pass, Set & Crush	24-6	Bikers 'n Spikers	17-7
Monday Maulers	26-7	Rude Dogs	16-8
Far Side	14-19	Scared Hitless	16-8
Spikers	12-21	No Names	12-15
Bud Hitter	5-28	Underdogs	2-25
League II		League III	
Spiked Jello	22-5	Silver Bullets	17-4
Safe Sets	19-8	Upton Ups	13-5
Monday Nite Live!	17-10	Just 4 Fun	13-5
Fossils	16-11	Joy of Sets	12-6
Nuts & Bolts	13-14	Harlem Knights	12-9
Jolly Veggies	11-16	DO-DAT	6-12
Volley Folly	7-20	High Volley'em	6-12
Night Court	3-24	New Comers	4-14
		OER	1-17

Bowling

Purple & White League

M. Meier 245/224/181/650 scratch series, D. King 236, S. DiMaiuta 230, N. Besemer 223/218/197 638 scratch, R. Picinich 222/206, E. Meier 212/183, K. Riker 212, E. Sperry IV 211, P. Callegari 201/192, E. Sperry III 196/180, S. Frei 190, K. Botts 186, M. Guacci 186, K. Batchelor 185, K. Conkling 179, M. DiMaiuta 177, F. Brown 176, M. G. Meier 176, T. Mehl 176, K. Mack 174, P. Manzella 171, D. Botts converted the 8/10 split.

Red & Green League

R. Prwivo 267, J. Griffin 257/236/691 scratch series, R. Wiseman 256/620 scratch, B. Geib 239, G. Weresnick 235, E. Larsen 232/227/640 scratch, H. Arnesen 214/203, J. Mayeski 209, R. Mulderig 208, T. Prach 204, R. Larsen 203, K. Asselta 203, A. Warkentien 202, B. Wahlert 202, B. Guiliano 201, S. DiMaiuta 200.

Cafeteria Menu

Monday, December 18	
Soup: Spicy potato	.90/1.20
A la Carte: Pasta w/sausage marinara	3.50
Lite: BBQ chicken	3.95
Deli: Baked ham & beans	3.20
Grill: Reuben	3.30
Tuesday, December 19	
Soup: Chicken noodle	.90/1.20
A la Carte: Roast chicken w/stuffing	3.95
Lite: Pork loin w/herbed crust	3.85
Deli: Corned beef & cabbage	3.20
Grill: French dip	3.30
Wednesday, December 20	
Soup: Broccoli & cheese	.90/1.20
Holiday Feast: Top round of beef, roast turkey breast, Yorkshire pudding, sweet potatoes, mashed potatoes, green beans	4.95
Grill: Tuna melt	3.30
Thursday, December 21	
Soup: Beef vegetable	.90/1.20
A la Carte: Baked lasagna w/focaccia	3.65
Lite: Hickory-grilled steak	3.95
Deli: Roast beef w/mashed potatoes	3.20
Grill: Spanish omelet	3.30
Friday, December 22	
Snack bar service to 1 p.m.	

Bulletin Bulletin

The Brookhaven Bulletin for December 22, 1995, will be distributed on site during the afternoon of Thursday, December 21.

Also, if you have not yet returned your Brookhaven Bulletin survey, please do so by Monday, December 18. If you did not get a copy of the survey form, stop by or call the Public Affairs Office, Bldg. 134, Ext. 2345.

WordPerfect Users

The WordPerfect Users' Group will meet from 10 to 11 a.m. on Tuesday, December 19, in the CCD Seminar Room, Bldg. 515, to repeat a presentation on images, watermarks and text art. Users are encouraged to share their creative uses of these features.

For more information, call Donna-Ree Rodriguez, Ext. 4127.

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 Human Resources Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Human Resources, 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.

Current job openings can also be accessed via the BNL Home Page on the World Wide Web. Outside users should open "http://www.bnl.gov/bnl.html", then select "Scientific Personnel Office" for scientific staff openings or "Employment Opportunities" or "BNL Human Resources Division" for all other vacancies.

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

POSTDOCTORAL RESEARCH ASSOCIATE - Trained in biology, chemistry, physics or related subject, with experience in crystallographic structure determination. Experience with protein expression, purification and crystallization is highly desirable. The research program is concerned with determining structures of major outer-surface proteins from the tick-borne Lyme disease spirochete *Borrelia burgdorferi*, by x-ray crystallography.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 3824. TRAINER POSITION - (term appointment) Requires a bachelor's degree, preferably in a technical field and several years' experience related to industrial safety principles and applications, including DOE, OSHA, ANSI and ASME standards. Duties will include analyzing and designing a series of occupational safety and health courses for supervisors and managers. Will be involved in pilot implementation and revision of course material to ensure Laboratory applicability and acceptance. Safety & Environmental Protection Division.

DD 6174. TECHNICAL POSITION - (term appointment) Requires an AAS in electromechanical technology or equivalent and experience with high-vacuum systems and high-vacuum leak checking. The ability to work from blueprints, and experience in the fabrication and assembly of cryogenic equipment required. Familiarity with machine-shop practices, pressure testing and system piping, as well as experience with both silver and soft solder, also required. Work will involve constructing, testing, installing and operating cryogenic equipment and gas systems, as well as cryogenic instrumentation and controls. Shift work required. Alternating Gradient Synchrotron Department.

Motor Vehicles & Supplies

94 CHEVY S10 PICKUP - 4-cyl., 5-spd., 27k mi., mint, many extras. 727-3863.

94 MITSUBISHI GALANT ES - very low mi., free oil changes & towing, 2 airbags, fully loaded, asking \$15,000. Rick or Sue, 821-4976.

92 DODGE D 250 - ext. cab, low mi., a/t, o.d., 318 V-8, tilt, cruise, ac, p/w, p/l, must sell, Walter, 732-1913.

92 PROWLER CAMPER - 24', sleeps 6, loaded, central ac, mw, cable TV, i/o showers, awning, stereo, mint, \$8,950. Bill, Ext. 2762 or 665-3782.

91 MERCURY CAPRI - convertible, p/s, p/b, am/fm Benz, silver, 77k mi., well maint. Rob, 476-1410.

89 HONDA CRX - 5-spd., silver, ac, 2-seater, 90k mi., excel., \$3,500. John, Ext. 7671 or 765-1299.

89 CHEVY CORSICA - 4-dr., 4-cyl., ac, a/t, cruise, tilt, high mi., excel., \$2,000. Gabriel, Ext. 2707 or 341-1087.

89 FORD MUSTANG LX - 2-dr. h/b, 100k mi., p/s, ac, am/fm, runs well, ask. \$2,600. Ext. 4711 or 499-2232.

88 FORD VAN - luxury hi-top conversion by American Vans, electric bed, TV, VCR, dual ac, \$5,000. Ken, Ext. 7915 or 929-0823.

We're Changing Our Deadlines

Deadlines for the Brookhaven Bulletin will change, effective for the January 12 issue — the second issue of 1996 — as follows:

• **Classified ads** — will be due by noon on Friday, for publication the following Friday. (The current deadline is 4:30 Friday.)

• **Club notices and other submittals** — will be due by 10 a.m. on Monday, for publication the following Friday. (The current deadline is noon on Tuesday.)

All are encouraged to start using these deadlines now, to ensure a smooth transition.

88 FORD FESTIVA - m/t, gray, 35 mpg, one owner, good cond., well maint., \$1,500 neg. Santangelo, Ext. 5262.

88 LINCOLN TOWN CAR - fully loaded, mint cond., \$2,500. Bawa, Ext. 2371 or 474-2071.

86 OLDS DELTA 88 - V-6, 4-dr. sedan, ac, p/d, p/w, p/b, stereo, orig. owner, 123k mi., good cond., \$900. 981-9351 after 6 p.m.

86 NISSAN PULSAR - ac, am/fm cass., 5-spd., runs well, \$600. Mark, Ext. 2957.

86 MUSTANG LX - 6-cyl., p/s, p/b, ac, T-top, 73k mi., excel. in/out, \$2,900 neg. 395-5809 after 5 p.m.

85 PONTIAC 6000 - 4-dr., V-6, a/t w/od, recent tune-up, new alternator, dependable transportation, \$1,350. Larry, Ext. 2796.

85 VW JETTA GL - v.g. cond., must see, \$1,950 neg; '81 Charger, v.g. cond., \$550 neg. Marco, 924-0960.

85 HONDA WAGON - 5-dr., 5-spd., \$800. Ext. 7130 or 929-8323.

84 FORD BRONCO XLT 4x4 - new rad., gas tank, battery, etc., rebuilt tranny & motor, high mi., needs work, \$2,000. 286-8523 eves.

84 PONTIAC TRANS AM FIREBIRD - black w/gold trim, 5.0-liter eng., V-8, 5-spd., \$1,900 neg. Rich, Ext. 5893 or 744-4816.

83 CUTLASS CIERA - high mi., clean, well maint., excel. cond., no dents or rust, \$1,500. 924-0705.

80 MUSTANG - 302, 5-spd., pcs/air, new brakes, timing chain, gears, oil pump, \$2,000. Tammy, Ext. 5864.

76 VOLVO 242DL - 4-spd., new battery & front struts, good running cond., \$900 neg. Steve, Ext. 3018 or 369-5181.

TOYOTA COROLLA SR5 - 100k mi., 5-spd., ac, am/fm cass., good cond., moving abroad, \$2,400 neg. Ken, Ext. 4514 or Alison, Ext. 4410.

BENCH SEAT - fits full-size suburban pickup/Blazer, light gray, good cond., \$375. Norman, Ext. 7802.

PARTS - Ford, 302 alum. intake manifolds, headers, Mallory electronic distrib. '88 stock 5.0 roller motor, fuel-inj., low mi. Wayne, Ext. 3084.

PARTS - '86 Camaro 2.8, '84 & '86 Blazer S10. Rob, Ext. 7668.

CAR SHOP MANUALS - '84 Subaru, \$5; '86 Isuzu, \$12; air filters, '83 diesel caddy, '86 Isuzu, \$2 ea. John, Ext. 3292.

CAP - for mini-pickup, fg. Ken, Ext. 4514/3508.

Boats & Marine Supplies

SUNFISH - 1 yr. old, lightly used one season, racing sail, sail cover, \$1,800. Kathy, Ext. 7537.

Furnishings & Appliances

BED - full-size, Ortho mattress, boxspring & frame, like new, \$75. Chris, Ext. 2593.

BEDS - twin, one w/storage draws in base, both light colored wood finish, \$25 ea. S. Aronson, Ext. 2051.

BLINDS - verticals in the mauve family, one 119" w x 54" l, one 82" w x 54" l, excel. cond. \$250. 821-2619.

DISHWASHER - Kitchenaid, deluxe, energy-saver, 3 yrs. old, paid \$450, asking \$200. Carl, Ext. 4420 or 722-3338.

DRAFTING TABLE - 3'x5', incl. \$500 Vemco machine, stool, light, heavy-duty, prof., excel. cond., \$350 firm. 924-0705.

DRYER - Kenmore, elec., \$30. Jim, Ext. 3372 or 821-0250.

LOVE SEAT - 58", \$25; fireplace enclosure w/screen & glass doors, good cond., \$20. Paul, Ext. 4156.

FREEZER - G.E. upright, 18 cu. ft., w/built-in lock, excel. cond., \$300 neg. Ext. 5740 or 744-8386.

REFRIGERATOR - Whirlpool, 19.1 cu. ft., side-by-side, almond, \$200; washer & dryer, \$100 ea. Patti, 929-8277.

SOFA - convertible, brown, like new, \$150. Steve, Ext. 4211.

SOFA BED - queen-size, matching love seat, slate blue fabric, \$450; recliner, Lazy Boy, mauve, excel. cond., \$250. Norman, Ext. 7802 or 399-1125.

TABLE - trestle, pine, 2 leaves, 4 chairs, \$75. Pat, Ext. 2539.

WALL UNIT - 3 pieces, walnut, one open, one w/drop down dr., one w/2 glass drs., all w/2-dr. lower cabinets, orig. \$1,200, ask. \$350. Tirre, 281-0360.

WASHING MACHINE - apt.-size, Sanyo, portable, 1 1/2 yrs. old, excel. cond., paid \$360, now \$150, delivered. Don, Ext. 7237 or 929-6571 after 5:30 p.m.

WATER BED - king-size custom headboard & frame, 100% motionless, built-in back support, \$550 neg. Donna, Ext. 5384.

WATER BED - super single deluxe, \$70; 5-shelf glass & chrome étagère, \$25; end tables, oak parquet, parsons, \$15 ea. or \$25/2. Sue, Ext. 7235 or 399-7997.

Tools, House & Garden

LAWN MOWER - Mastercut, 21" cut, rear bagger, excel. cond., \$85. Dan, 698-7322.

PICNIC TABLE - 48" square w/4 benches, turntable, redwood, \$100. Frank, 567-6419.

PATIO SET - 6 chairs w/cushions, matching umbrella, 90"x42" table, green, PVC tubing, new, all covers, orig. \$2,000, best offer. John, 395-5922.

POINSETTIA - florist-quality, various sizes, colors, low prices. 727-6818 after 3:30 p.m.

SCOTCH PINE TREE - Christmas, 6.5', artificial, \$25; fireplace doors, custom-made, 48", \$50 or best offer. children's 20" bike. Steve, Ext. 3018 or 369-5181.

STOVE - coal/wood, like new, \$500. 924-5192 after 5 p.m.

TABLE SAW - Craftsman, 10", many extras, runs well, \$250. John, 395-5922.

WOOD CHIPPER - 1990 Mighty Mac, 12-h.p., orig. \$3,200, sell for \$1,500, will consider trading. Rich, Ext. 3354 or 589-9103.

WOOD STOVE/FIREPLACE - jotul #4, combi-fire, efficient, heats whole house or switch to fireplace, orig. \$800, sell for \$175. 924-0705.

Sports, Hobbies & Pets

BOOTS - women's, country-western, tan, size 8 1/2 M, worn once, orig. \$130, sell for \$45. Mike, Ext. 4061.

BOW - right-handed, PSE Palasis, brand-new, \$60. Janet, Ext. 2345 or 929-3910.

DARKROOM EQUIPMENT - 8'x10' trays, unicolor timer, 5'x7' speed easel, 80 Gepe glass mounts, bulk film loader. Maj Britt, Ext. 1388.

EXERCISE MACHINES - Body by Jake & ab machine, w/videos, like new, \$75. 289-3586.

GOLF CLUBS - new, Cleveland VAS irons, 3-Pw, 3 & 4 wood, bag, stand, \$400/all. Ernie, Ext. 2677.

KARATE FIGHTING GEAR - never used, \$50; stairstepper, \$30; exercise bike, \$25; rower, \$10. Ralph, Ext. 2539.

EXERCISE MACHINE - cross-country ski machine, used very little, excel. cond., \$300. Bill, 298-4172.

PET CARRIER - Vari Kennel 200, new, \$25; 30-gallon fish tank, like new, \$40. Sue, Ext. 7235 or 399-7997 after 5 p.m.

PIANO - Winter, walnut, excel. cond., w/bench, \$850. Jorg, Ext. 5653.

PIANO - upright, Grand Steinway, restored, perfect cond., \$2,000. Darcy, Ext. 3362 or 286-8523.

SKI SUIT - woman's or boy's, small, red & black, good down ski jacket, black bib, like new, asking \$100. 722-5937.

Audio, Video & Computer

AMPLIFIER - Hartke model 3500, bass, 350W, 10-band, equalizer, excel. cond. Dave, Ext. 5465.

COMPUTER - Commodore 64, Okidata printer, software, mon., keyboard, \$50. Ralph, Ext. 2539.

COMPUTER - 486DX2/66, mon., Panasonic printer, serial/parallel ports, mouse, 240M HD, \$875. Paul, Ext. 7697.

COPY-FAX MACHINE - Fujitsu Dex Express 7800, plain paper, mint cond., \$250 firm. Ext. 4938.

SOFTWARE - Lotus Smart Suite, CD ROM, still in sealed package, \$50 or best offer. Henry, Ext. 7749.

STEREO - turntable, double cass., digital, in cabinet w/glass door, \$100 neg.; JVC VCR, 4-head, \$120 neg.; 25" console TV, solid state, \$50. 475-8242.

VIDEO GAME - Sega Gamegear, battery pack, ac adaptor, 4 games, carrying case, excel. cond., \$110. 929-6209.

VIDEO GAME - Nintendo, deluxe joystick, NAS adv. controller, 18 games, many extras, \$400 neg. John, 395-5922.

Miscellaneous

BLACKBOARD - director's; white board w/doors; cork board, flip charts, exterior simulated oak, best offer over \$50. Vic, Ext. 7016.

COAT - leather, men's, full-length, zip-out lining, large, brand-new, orig. \$465, now \$165 or best offer. Russ, 698-0424.

JACKET - leather, women's, small, Andrew Marc, brown nubuck, w/drawstring waist, asking \$100. Meryl, 722-5937.

MAPLE SYRUP - from my family's farm in Vermont. Peter, Ext. 7687 or 744-1112.

RING - diamond engagement, 1 carat, size 6 1/2, white gold, Marquis-style, high setting. Donna, Ext. 2380.

RING - engagement, 0.45 ct., H color, perfect clarity, appraised \$2,800, sell for \$1,500. Donna, Ext. 5384.

SANTA LETTERS - personalized for that special child this Christmas season, Joey, Ext. 2950 or 758-2938.

TELESCOPE - Bushnell 565, power, 60mm objective lens, three eyepieces, mount, \$75. Sheryl, Ext. 4400.

TICKETS - Meistersinger, 2, 12/21, Metropolitan Opera, dress circle, free bus, orig. \$60/ea., now \$40. 744-5096.

TYPEWRITER - Smith Corona, elec., spell check, access., \$50. Carl, Ext. 4420.

Free

BABY CARRIER - for newborn. Frank, 399-7309.

DOUBLE-HUNG WINDOW - w/storm & screen attached. Sue, Ext. 7235 or 399-7997 after 5 p.m.

DOG - Labrador-German Shepherd, 8 mo. old, black, female, housebroken, shots, fixed. Chuck, 654-9057.

Lost & Found

LOST - license plate, New York RA4-NAVY. Ruth Ann, Ext. 7774.

Wanted

GUITAR - student, small, for 6 yr. old, cheap. Denny, Ext. 2360.

FISH TANK - & equip. Jason, Ext. 4034.

FONDUE POTS - also rowboat, small, alum. or wood, prefer engine. Rich, Ext. 5284.

LAWN MOWERS - & lawn tractors, old, complete only. Dan, 698-7