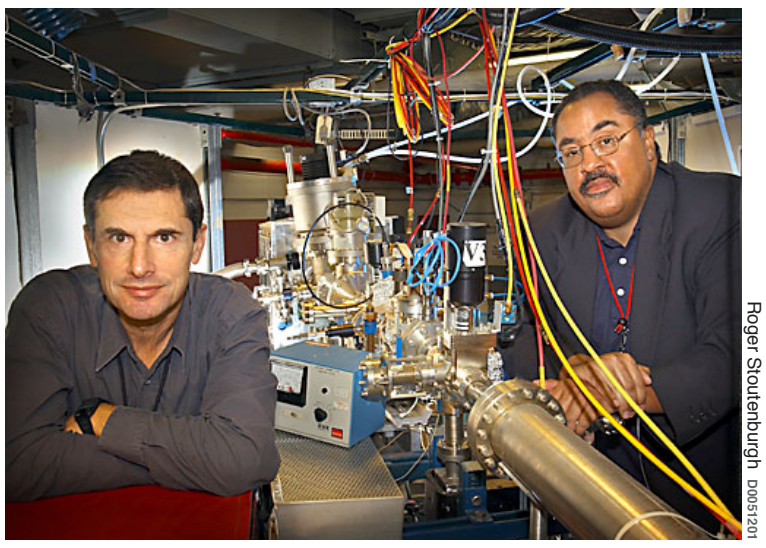
the Bulletin

BROOKHAVEN NATIONAL LABORATORY

Vol. 55 - No. 42 December 14, 2001



Roger Stoutenburgh D0051201

Ady Hershcovitch (left), Collider-Accelerator Department, and Michael Greene, Office of Intellectual Property & Industrial Partnerships, are in front of a plasma window mounted on the U15 beam line at the National Synchrotron Light Source (NSLS). Invented by Hershcovitch, the window has been used to transmit x-rays and ultraviolet radiation from the NSLS beam line under vacuum to atmospheric pressure for experiments. The plasma window is expected to facilitate non-vacuum electron-beam welding in many commercial applications.

BNL Welding Technique Wins DOE Grant for Acceleron

A new welding technique developed by Ady Hershcovitch, a physicist in the Collider-Accelerator Department, is one of 13 energy-saving projects nationwide to win a grant from DOE's National Industrial Competitiveness through Energy, Environment and Economics program, known as NICE^3.

NICE^3 grants help U.S. companies overcome regulatory, economic, and other barriers to demonstrate and commercialize innovative, energy-saving technologies. *(continued on page 3)*

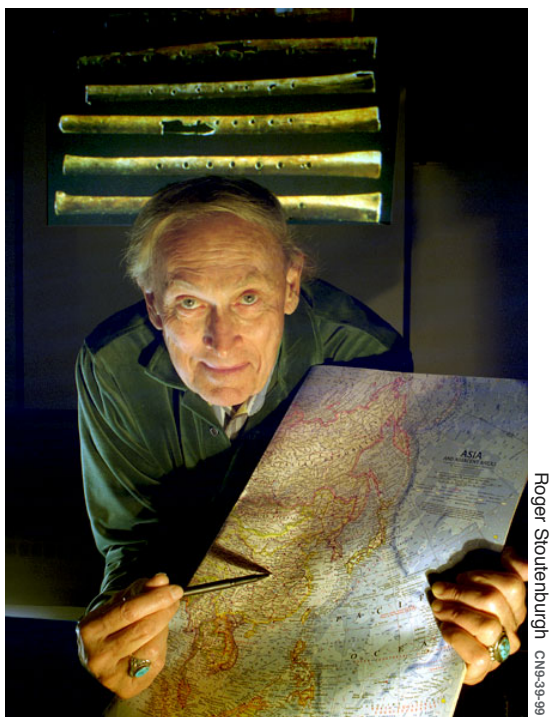
Harbottle Awarded 2002 Pomerance Medal For Scientific Contributions to Archaeology

Garman Harbottle, a retired senior chemist in the Chemistry Department, has been named the 2002 recipient of the Archaeological Institute of America's Pomerance Award for Scientific Contributions to Archaeology. Harbottle will receive the Pomerance medal, which is one of the two highest honors the Institute confers, at the Institute's annual meeting in Philadelphia, Pennsylvania, on January 4.

Harbottle's international reputation as an expert in dating and authenticating historically important art and artifacts was built during his long career at BNL, with much of his work supported by DOE.

"It's exciting to be able to follow my interests in nuclear chemistry and in archaeology and art history, and it's particularly rewarding to solve archeological puzzles using scientific methods," said Harbottle. "Brookhaven has been a wonderful place to pursue interdisciplinary research."

Harbottle has dated historically significant items using a carbon-dating method that was largely made possible by a revolutionary small-scale gas counter developed in the late 1970s by Harbottle and two now-retired BNL scientists: Edward Sayre, a 1999 Pomerance Award recipient, and Raymond Stoenner.



Roger Stoutenburgh CN9-39-99

Garman Harbottle is seen with the photo of six complete crane-bone flutes of between 7,000 and 9,000 years old, which were discovered at the early Neolithic site at Jiahu, in Henan province, China.

For example, Harbottle has dated a lump of 12th century nonindigenous raw iron found in 1860 in the Canadian Arctic.

In addition, his research traced out pre-Columbian turquoise trade routes that brought the raw material for Mesoamerican religious jewelry from mines in the American Southwest to the markets in central Mexico.

Harbottle has also identified the geographical origins of celebrated limestone sculptures created in France during the ninth through fifteenth centuries. This Brookhaven Limestone Database Project is now affiliated with more than 33 museums in the U.S., France, and Great Britain.

In the late 1990s, Harbottle was a member of the Jiahu research team in China which uncovered six complete crane-bone flutes of between 7,000 and 9,000 years old with 30 other flutes at the early Neolithic site of Jiahu, in Henan, China. Several flutes are playable and appear be the earliest instruments to be acoustically analyzed.

After earning a Ph.D. from Columbia University in 1949, Harbottle joined BNL's Chemistry Department in the same year. *(continued on page 3)*

BNL Receives $30m of $291m Congressional Appropriation For National Neutron Spallation Source Project at ORNL

For its work on the National Spallation Source (SNS) during this fiscal year, BNL is receiving $30 million of $291 million appropriated for the SNS by Congress in November.

When completed in June 2006, the SNS will enable scientists to study materials at the atomic level and design stronger, lighter and cheaper materials by using particles called neutrons.

Roger Stoutenburgh D0331001

In the magnet assembly area of Bldg. 902, many of the team members of the Spallation Neutron Source Project are gathered with Interim Laboratory Director Peter Paul (front, third from right), and (to his right) Mike Butler, U.S. Department of Energy Brookhaven Area Office; and Senior Team Leader Bill Weng (front, right), Collider-Accelerator Department. In the background are some of the 32 dipole magnets that will be measured and assembled into half-cell assemblies for the accumulator ring.

As one of six DOE national labs in the SNS collaboration, BNL has been doing research and development on this accelerator-based neutron source since its inception in 1995. The different parts of the SNS must be in place by 2004, and BNL is on schedule.

"The research and development on the accumulator ring, which is BNL's responsibility, is now 100 percent complete," says Bill Weng of the Collider-Accelerator (C-A) Department and senior team leader of BNL's SNS efforts. "We have also completed 65 percent of the final design of the ring and have placed 35 percent of the industrial procurements."

The SNS, which will be located at Oak Ridge National Laboratory (ORNL), will use a technique called neutron scattering to help understand how atoms vibrate, molecules interact with each other, and how proteins fold and unfold, thus paving the way to the development of diverse new applications.

"Research using neutron scattering has already led to significant improvements of products used in our everyday lives," says Weng. "The SNS will help scientists devise ways to improve materials that are used in high-temperature superconductors, powerful lightweight magnets, aluminum bridge decks, better lubricants and stronger, lighter plastic products."

The collaboration among DOE laboratories – Argonne, Brookhaven, Lawrence Berkeley, Los Alamos, Oak Ridge and Thomas Jefferson – began six years ago, after Congress cancelled the Advanced Neutron Source, a reactor which was to be built at ORNL. In its place, DOE suggested a spallation neutron source for less than a billion dollars, and, in October 1998, approved the SNS project.

"Working in a multi-lab partnership has the advantage that each lab's unique expertise is tapped, resulting in a superior design and a project that will be completed more efficiently and quickly," Weng comments.

The SNS will produce neutron beams by bombarding a mercury target with energetic protons from an accelerator. Just as balls are ejected from a bucket when a baseball is thrown into the bucket, neutrons are knocked out of the nucleus, or "spalled," in a nuclear reaction called spallation.

BNL's Accumulator Ring

The SNS consists of an ion source, a linear accelerator, an accumulator ring, and a target surrounded by the necessary instrumentation.

The source produces negative hydrogen ions — hydrogen atoms with an additional electron attached — which are formed into a pulsed beam and accelerated to an energy of 2.5 million electron volts (MeV).

The beam is then delivered to the 330-meter-long linear accelerator, or linac, which accelerates the protons into the accumulator ring.

BNL is responsible for designing, manufacturing, and testing the accumulator ring. Ten years ago, under Weng's leadership, the Lab gained the necessary expertise by building the Booster for the Alternating Gradient Synchrotron (AGS). The AGS Booster is very similar to the SNS accumulator ring, in that it accelerates high-intensity protons and heavy ions to high energy.

"Whereas the AGS achieved 60 trillion particles per pulse, the SNS will have to achieve 200 trillion particles in a single pulse — a factor of three improvement of the world intensity record achieved by the AGS in 1995," *(continued on page 3)*

Calendar
of Laboratory Events

- *The BERA Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347; or M. Kay Dellimore, Ext. 2873.*
- *Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.*
- *The Recreation Building (Rec. Bldg.) is located in the apartment area.*
- *Contact names are provided for most events for more information.*
- *Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.*

— EACH WEEK —

Mondays: Arts & Crafts
1 p.m., Rec. Bldg. Hospitality event. $1 per class. "Basic Photography" participants should bring their camera and a few photographs that they have taken. Marcia Leite, Ext. 1040, mhsleite@hotmail.com.

Mondays: BNL Gospel Choir
5:15-7 p.m. Rehearsals in Berkner auditorium. Seeking new members, all faiths. Frances Ligon, ligon@bnl.gov, Ext. 3700; Sydell Lamb, lamb@bnl.gov, Ext. 3389; www.bnl.gov/bera/activities/choir/.

Tuesdays: Welcome Coffee
10-11:30 a.m. Rec. Bldg. Hospitality event. Come and meet friends. Hospitality Chair Mimi Luccio, 821-1435.

Tuesdays: Toastmasters
Meetings are 1st and 3rd Tuesday of each month, 5:30 p.m.; 4th Tuesday at 12:05 p.m. in Bldg. 463. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmstrs/default.htm.

Wednesdays: Cooking Exchange
10 a.m., Rec. Bldg., Hospitality event. Every third Wednesday. $1 per evening covers the cost of ingredients. Marcia Leite, Ext. 1040, mhsleite@hotmail.com.

Wednesdays: Weight Watchers
noon-1 p.m., Brookhaven Center South Room. Mary Wood, Ext. 5923.

Wednesdays: Yoga Practice
noon-1 p.m., Rec. Bldg. Free. Ila Campbell, Ext. 2206.

Wednesdays: Stretch
5:15-6:15 p.m., $4 per class. Rec. Bldg. Pat Flood, Ext 7886.

Wednesdays: BNL Ballroom, Latin & Swing Dance Club
6-9 p.m. N. Ballroom, Brookhaven Center. Marsha Belford, belford@bnl.gov.

Thursdays: Falun Dafa Class
noon-1 p.m., Free. Rec. Bldg. Falun Dafa refines the body and mind through exercises, meditation. www.falundafa.org.

Mondays, Thursdays: Carollers
noon-1 p.m., Berkner Hall Auditorium. Reading music not required. All voices wanted, Liz Seubert, Ext. 2346.

Tuesdays & Thursdays: Aerobics
5:15-6:30 p.m., $4 per class. Rec. Bldg. Pat Flood, Ext 7886.

Tues. & Thurs.: Aqua Aerobics
5:15 p.m. $2 pool fee per class or pool pass. Mary Wood, Ext 5923.

Mon. Tues. & Thurs.: Cardio Kickboxing
$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Mary Wood, Ext. 5923, or wood2@bnl.gov.

Mon., Tue. & Fri.: Tai Chi
12:15 - 12:45 p.m., Rec. Bldg. Scott Bradley, Ext. 5745, bradley@bnl.gov.

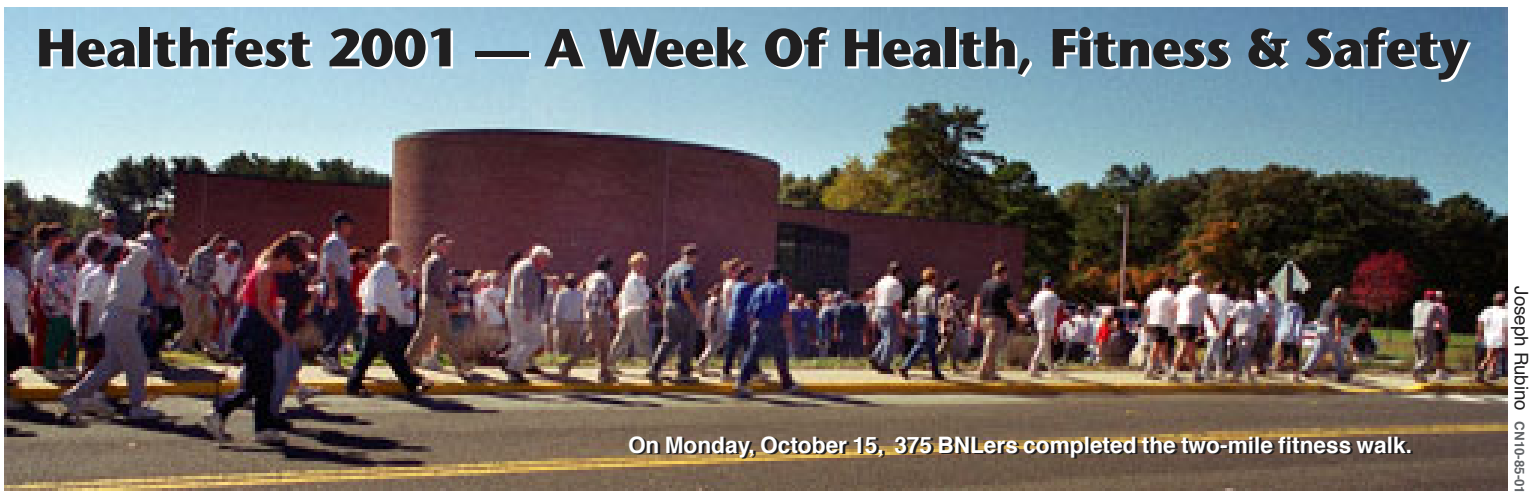
— THIS WEEKEND —

Friday, 12/14

*GLOBE Meeting
The Gay, Lesbian, and Bisexual Employee Club (GLOBE) will meet to celebrate its 2nd anniversary. Agenda includes discussion on the club's achievements, future activities. See page 3 and www.bnl.gov/bera/activities/globe. For information and the meeting's time and location, contact Debbie Bauer, Ext. 5664, or Mike Loftus, Ext. 2960.

BERA Holiday Party Today
5:30-11:30 p.m., Brookhaven Ctr. No tickets will be sold at the door.

Healthfest 2001 — A Week Of Health, Fitness & Safety



On Monday, October 15, 375 BNLers completed the two-mile fitness walk.

Joseph Rubino CN10-85-01

Healthfest 2001 — BNL's annual celebration of personal health, fitness, and safety — again drew a healthy crowd of employees, facility-users, and retirees to all of its offerings, inside and out.

This year, while 660 people registered, 677 showed up for at least one Healthfest event. Helping to run these events, some 85-plus BNLers volunteered for Healthfest. And, a record 60 tables of exhibitors offered displays, demonstrations, and screenings during the two-day Health, Fitness & Safety Fair.

As a result of the involvement of 56 percent of its staff, the Business Systems Division earned the second annual Healthfest Participation Award.

Stretching from October 15 to 19, Healthfest began that Monday with 375 completing the two-mile fitness walk.

On Tuesday, 103 runners competed over a five kilometer course during the fitness run, which was won by Terry Sullivan in 17:15 (see results, below). Again this year, the fastest woman was Sharon Zuhoski, with a time of 21:23. The stretch clinics held before both events drew 70 participants total.

Then, on Wednesday and Thursday, some 600-plus BNLers attended the Healthfest fair, sampling the information and activities in Berkner Hall offered by some 35 outside organizations and ten Lab departments, divisions, and offices.

During the fair, 231 people took part in the water-tasting and water-testing events (see results in a future edition of the Bulletin), 200-plus had their blood pressure taken, 100 experienced a massage and/or the Reiki workshop, 50 had their body composition analyzed, 40 attended the podiatry screening, and 12 attended the stress-management workshop.

Meanwhile, on Wednesday, 54 exercisers did a Jazzercise workout, and 40 golfers attended a clinic with a professional. On Thursday, 32 tennis players worked on their serve and other skills during a clinic, and 22 fought their way to fitness through cardio-kickboxing.

Finally, on Friday, some 200 pedaled their mountain bikes five to eight miles along the Lab's firebreaks.

Some 1,025 T-shirts were distributed to Healthfest participants, exhibitors, and volunteers, and over 80 raffle prizes were given away.

According to the more than 160 evaluations that have so far been received by Healthfest organizer and Health Promotion Coordinator Mary Wood, Occupational Medicine Clinic, the week was once again worthwhile. Not only were many inspired to renew and improve their health, fitness, and safety programs, but also many felt that Healthfest was good for morale following the national tragedies of September 11th.

"The best part of Healthfest was [that it brought] everyone together," noted one evaluator.

Over the years, "Healthfest has succeeded in bringing the Lab community together, to focus on individual physical and mental health, fitness, and safety," concurs Wood. As a result of their participation, many have gone back to exercising, improved their diet, lost weight, etc.

In fact, comments Wood, "This year, over 100 participants reported via our follow-up survey that they have made and maintained positive life-style changes as a result of their involvement in Healthfest."

Again using feedback from the post-Healthfest survey, says Wood, "We are considering holding other Healthfest-like outdoor events, in addition to the walk, in the spring, as well as thinking of ways to make next fall's tenth annual Healthfest even better."

For their involvement in Healthfest 2001, Wood thanks Healthfest co-chair Richard Machnowski, the Healthfest 2001 organizing committee, and the 85-plus volunteers. "It took a dedicated team to make our ninth annual Healthfest successful," concludes Wood.

In addition to Wood and Machnowski, the Healthfest 2001 organizing committee included: Marsha Belford, Patti Bender, Nicole Bernholc, Sharol Busby, Joe Carbonaro, Sheryl Carey, M. Kay Dellimore, Jack Ellerkamp, Denise Di Meglio, Y. Renée Flack, Pat Flood, Diane Greenberg, Augie Hoffmann, Claudia Hatton, Peter Pohlot, Chris Ronick, Jack Russell, Laura Miller, Kathy Walker, Jeff Williams, and Kevin Wolniewicz.

Overseeing the organizers is the Healthfest executive committee, which includes: Tom Sheridan, Bill Hempfling, Brian Sack, and Greg Ogeka.

— Marsha Belford

On Wednesday, October 17, 35 exercisers worked out in the Jazzercise class.

Roger Stoutenburgh D012100I

2001 Healthfest 5-Kilometer Fitness Run Results

Terry Sullivan	17:15	Sasa Prolousek Komel	22:38	Wayne Rambo	25:27	Swapna Mukherji	28:06
Trevor Sears	18:14	Ron Gill	22:39	Richard Wagener	25:39	Mow Lin	28:08
Donald MacKay	18:17	Karen Johnson	22:50	Stu Carroll	25:51	Ted D'Ottavio	28:14
Bob Kujawski	18:29	Seth Nemesure	22:51	Patrice Pages	25:54	Stephen Shapiro	28:17
Paul Geiger	18:43	Rick Wilke	23:00	W. Scott Bradley	25:55	Rita Goldstein	28:25
Mike Mapes	19:09	Garry Hubbard	23:04	Daniele Davino	25:58	Robert McGraw	28:26
Dave Phillips	19:34	John Andrews	23:11	Kevin Fox	26:04	Frank Marotta	28:28
Wolfgang Caliebe	20:22	Jan Hock	23:24	Ray Duffield	26:07	Michael Gaffney	28:29
Tim Morrin	20:25	Steven Bellavia	23:30	Sharon Wang	26:16	Alireza Javidfar	28:31
Joe Nasta	20:43	Neville Williams	23:33	Sheryl Carey	26:23	Tammy Heinz	28:41
Vik Usack	20:44	Robert Lake	23:37.4	Ben Ocko	26:24	Henry Hauptman	28:57
Mel Cowgill	20:57	Alice Cialella	23:37.9	Michael Villaran	26:56	Paul Lang	28:58
John Escallier	21:22	Nick Tsoupas	23:38	Tom Clifford	26:57	Juanita McKinney	29:18
Sharon Zuhoski	21:23	David Morrison	23:46	John Toner	27:14	Kathleen Tuohy	29:35
David Graham	21:26	Peter Kohut	23:53	Naidja Abdullah	27:15	Heather Hartmann	29:42
Roger Davis	21:34	Ed Gallagher	23:58	Dardo Tomasi	27:16	unregistered runner	29:55
Michael DePhillips	21:39	Neil Wade	24:16	Yuke Tian	27:20	Hironori Horie	30:01
Chris Homes	21:45	Paul O'Connor	24:20	Doug Zigrosser	27:24	James Hainfeld	30:08
Mike Brennan	21:49	Joe Tuozzolo	24:29	Leif Ahrens	27:34	Alejandro Sonzogni	30:23
James Alessi	21:53	Charles de la Parra	24:38	Karen Christie	27:41.3	Peggy Micca	34:24
Tim Powers	21:59	Barry Cornell	24:44	Ken Perkins	27:41.9	Jack Russell	35:14
John Bohenek	22:12	Werner Vogelsang	24:51	Richard Wall	27:42	Helen Savage	35:15
Vincent Racaniello	22:16	Brian Boyle	25:07	David Winchell	27:44	David Alburger	35:52
Dan Weiss	22:25	John Ostaszewski	25:11	Ken Mohring	27:53	Beth Lin	36:54
Weimin Zhou	22:33	Robert Todd	25:17	Wailin Litzke	27:59		
Sven Heinemeyer	22:35	Jim Marron	25:22	Wendy Spaeth	28:00		

Joseph Rubino CN10-54-01

BNL Receives $30m for SNS Project *(cont'd.)*

Weng says. "It is feasible but very challenging."

Stripper Foil Integrity

At the entrance of the SNS accumulator ring, the ions will be sent through a device called a stripper foil that removes the electrons from the ions, leaving protons to circulate in the ring. After accumulating 1,000 times in the ring, the proton pulse is extremely short and sharp, lasting less than a millionth of a second, and is ready to be sent to the target.

"Ensuring the integrity of the foil is one of the most delicate parts of our work on the ring," Weng says.

"Because the foil heats up, it can tear or break," adds Weng. "First you need to know how many electrons have been stripped out, then you calculate the temperature." Since the foil disintegrates at 3,000 degrees celsius (C), the BNL team makes sure that the temperature stays lower than 2,000 degrees C.

Ejected from the ring to collide with the target, the protons produce neutrons. Then, slowed down by a moderator, the neutrons are guided into beam lines — shielded vacuum tubes leading toward an experiment mounted at the end of each beam line. When the neutrons arrive at the experiment, they will collide with a sample surrounded by a detector.

The detector will map the final positions of the scattered neutrons as a diffraction pattern, which will be used to infer the structure of the sample.

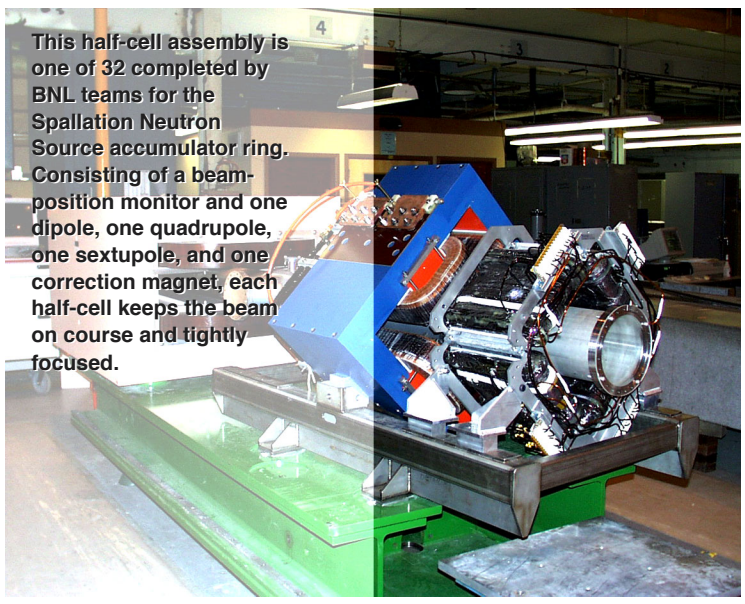
Knowledge and Skill

In Buildings 817, 902, and 911, about 100 BNLers in 12 teams are working on various parts of the SNS accumulator ring. Some of the key C-A personnel involved in this effort are: Yong Yung Lee, deputy senior team leader; Jon Sandberg, chief electrical engineer; Joseph Tuozzolo, chief mechanical engineer; William McGahern, assistant for engineering; and Mike Nekulak, assistant for project control.

So far, more than 20 industrial firms are manufacturing various components and systems for the accumulator ring. Also, with expert help from BNL's Central Shops Division, specialized devices such as beam position monitors, a foil support module, and beam scrapers for the ring have been built at BNL.

"We are taking advantage of knowledge and skill accumulated at BNL over the past 20 or 30 years," says Weng. "To me, this is very exciting."

— Patrice Pages



This half-cell assembly is one of 32 completed by BNL teams for the Spallation Neutron Source accumulator ring. Consisting of a beam-position monitor and one dipole, one quadrupole, one sextupole, and one correction magnet, each half-cell keeps the beam on course and tightly focused.

Harbottle *(cont'd.)*

Harbottle held two postdoctoral fellowships at Cambridge University: an Atomic Energy Commission Postdoctoral Fellowship, 1951-52, and a Guggenheim Fellowship, 1957-58.

At the American University in Beirut, Lebanon, in 1959, Harbottle taught radioisotope procedures. Also, from 1965 to 1967, he directed the Division of Research and Laboratories at the International Atomic Energy Agency in Vienna, Austria.

Harbottle's many awards include: with Edward Sayre, the 1983 George Hevesy Medal for outstanding accomplishment in radioanalytical chemistry; the 1994 Society for American Archaeology's Fryxell Medal for interdisciplinary research; and the 1995 American Nuclear Society's Seaborg Medal, which honors excellence in research that has been especially beneficial to the development of the peaceful uses of nuclear energy.

— Diane Greenberg

Arrivals & Departures

Arrivals

David Du Mont ..... C-A
Bryan Hammer ..... PE
Songling Li ..... Medical

Departures

Arthur Harris ..... ESH&Q/QA
Willem Van Asselt ..... C-A

GLOBE Celebrates 2-Year Anniversary

BNL's Gay/Lesbian/Bisexual Employee Club, GLOBE, will meet to celebrate its second anniversary today, 12/14. The agenda includes discussion of the club's past achievements and future activities, the organization of the club, and BNL's adoption of a non-discrimination policy that includes sexual orientation. BNL's commitment to implement domestic partner benefits will also be reviewed.

For more information, visit the club's web page at www.bnl.gov/bera/activities/globe. For the time and location of the meeting, call Debbie Bauer, Ext. 5664, or Mike Loftus, Ext. 2960.

United Way Update: $83,153 So Far

"We're doing well," said Liz Mogavero, Physics Department, who, each year, handles the accounting for the Lab's United Way fund drive. Mogavero had just added BNLers' latest pledges to the fund total, which, on Wednesday, December 11, stood at $83,155. "About 12 percent of the Lab population has made contributions so far," she said. "I'm sure that, as usual, more people will send in pledges over the next few days."

For more information on how to contribute to BNL's United Way fund drive, go to www.bnl.gov/bnlweb/unitedway.html, or contact: your department or division's United Way captain, or Susan Monteleone, chair of this year's campaign, Ext. 7235, or her co-chair, Beth Blevins, blevins1@bnl.gov or Ext. 5630.

Precertify Hospital Stays

All participants in the CIGNA PPO medical plan are reminded to obtain hospital precertification from CIGNA. Precertification is mandatory for a one-or-more-night's stay in the hospital, but not for ambulatory surgery procedures for which patients are admitted to and released from the hospital the same day. If you are retired and covered by Medicare, you *do not* have to precertify.

If an employee, retiree, or family member fails to notify CIGNA regarding precertification or emergency hospital admission, medical insurance benefits will be reduced to cover 50 percent of the amounts otherwise payable, with a maximum penalty of $500.

Expectant mothers *must* call CIGNA before the end of their *first* trimester to precertify their maternity-hospital admission. They or a family member *must* also call within 24 hours following admission into the hospital for the delivery.

For hospital preadmission certification, call CIGNA at (800) 982-8958 before admission to the hospital or within 48 hours of an emergency admission. This phone number is on the back of the CIGNA identification card. Employees and retirees should advise their families of the precertification requirement, so, in case of an emergency, they can make the required telephone call to CIGNA.

New, BNL-Invented Welding Technique *(cont'd.)*

Administered by the Connecticut Department of Environmental Protection, the $525,000 DOE grant will help Acceleron Electron Beam, LLC, an electron-beam and laser-production company in East Granby, Connecticut, to work with BNL on further development and commercialization of the new welding technology.

Acceleron holds an exclusive license to the welding technology patented by BNL. For additional funding, the Connecticut Light & Power Company has added $250,000 to the project, and Acceleron is contributing more than $519,000.

Electron-beam welding has many advantages over other welding techniques, including the ability to make welds that are deeper and narrower than conventional welds. Therefore, it has commercial applications in many industries, from automotive to medical and more.

Present-day electron-beam welding is performed in a vacuum chamber, limiting the size of the work piece that can be welded. Maintaining the vacuum requires pumps that use a lot of electricity and special, expensive lubricants that must be disposed of as waste.

Hershcovitch's invention, a thin foil of fluidic material called a plasma window, is expected to surmount these obstacles by facilitating non-vacuum electron-beam welding.

"This grant provides the opportunity to commercialize the plasma window that I started to design a decade ago," said Hershcovitch. "I am very pleased that Acceleron will work on bringing it to the marketplace. I expect that it will be a commercially successful, energy-efficient device."

Developing the original idea of the plasma window was made possible by a technology maturation grant from DOE's Energy Research Division & Laboratory Technology Program.

Hershcovitch constructed the plasma window to his design over six years with the help of students who were participating in DOE's national Energy Research Undergraduate Laboratory Fellowships (ERULF) program. The ERULF program, which evolved from BNL's summer student program started in 1949, is organized on site by BNL's Office of Educational Programs. — Diane Greenberg

For more details on the plasma window and the new electron-beam welding technique, go to: www.bnl.gov/bnlweb/pubaf/pr/2001/bnlpr121101b.htm.

Safety Glasses Office

The Office for Safety Glasses will be closed on Wednesday, December 26.

Note that the form for Safety Glasses and Safety Shoes has been revised. Form BNL F2211A must now be replaced with BNL F2211B-Rev 10/01, which can be ordered through stock in Bldg. 86.

BERA Toy Drive

Donate a new, unwrapped toy to the BERA Toy Drive. Drop your gift in the toy box at the BERA Sales Office, 9 a.m.-3 p.m., through Thursday, December 20.

No Bulletin: 12/28, 1/4

Because of the upcoming holidays, no Bulletins will be printed on December 28 or January 4.

Calendar

(continued)

Sunday, 12/16

Hospitality Christmas Dinner Party

5:30 p.m., Recreation Bldg. Santa will arrive at 6 p.m. Lab employees, guests, visitors, and their families are welcome. Bring a dish to share. Meats and soft drinks will be provided. Shashi Somani, Ext. 1064.

— NEXT WEEK —

Monday, 12/17

IBEW Meeting

6 p.m., Knights of Columbus Hall, Railroad Ave., Patchogue. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

Tuesday, 12/18

Fremont Industrial Corp. Demo

11 a.m.-2 p.m., Berkner Hall. Environmental and occupational safety products and equipment will be presented, including eye, ear, and face protection; fall protection; ladders and scaffolding systems; and environmental spill protection. 516-333-7575.

Wednesday, 12/19

Carols in the Cafeteria

At noon, in the cafeteria, to accompany the special holiday lunch menu, the BNL Carollers will sing.

Science Discussion Group

12:30-1:30 p.m., Berkner Hall, Room D. People who enjoy talking about science are invited to join the discussion group exploring current scientific events and issues. Patrice, Ext. 3270, pages@bnl.gov.

Thursday, 12/20

Brookhaven Advocacy Council

Open session: 12:30-1:00 p.m., Berkner Hall, Room C. See www.bnl.gov/bac. Nancy Warren, Ext. 4200.

BNL Amateur Radio Club

5:30 p.m., Recreation Bldg. Agenda includes election of officers and the holiday party. All are welcome. Chris Neuberger, Ext. 6062.

— WEEK OF 12/24 —

Wednesday, 12/26

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room D. Mary Campbell, Ext. 4776, maryc@bnl.gov.

— WEEK OF 1/7 —

Saturday, 1/12

Defensive Driving Class

9 a.m.-3:30 p.m., $23 per person. Berkner Hall, Room B. The six-hour class is open to all BNL, BSA, and DOE employees, BNL facility-users, and their families. To register, send a check made out to Empire Safety Council, in care of Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. Include your telephone number on your check. Because of extra security measures, only those whose checks have been received by January 4 will be admitted on site to attend the class. Note: checks will be nonrefundable.

— WEEK OF 1/14 —

Thursday, 1/17

Brookhaven Advocacy Council

Open session: 12:30-1:00 p.m., Berkner Hall, Room C. See www.bnl.gov/bac. Nancy Warren, Ext. 4200.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Please enter the information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered 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, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for 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; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/JOBS/jobs.html.

LABORATORY RECRUITMENT – Opportunities for Laboratory employees.

NS2452. SR. OFFICE SERVICES ASSISTANT (CW-3, term appointment, reposting) – Requires customer service and health insurance benefits administration experience; knowledge of Word, Excel and PeopleSoft; and excellent communications and interpersonal skills. Duties include enrolling employees for benefits, assisting employees and retirees with benefit changes, maintaining databases and providing clerical/administrative support to the Benefits Office staff. Human Resources Division.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates.

TB2395. ADMINISTRATIVE SERVICES ASSISTANT (A-2, reposting) – Requires an AAS degree or equivalent with 6 years' relevant experience and sound knowledge of scheduling systems, PowerPoint, MS Excel, and MS Word. Knowledge of one or more specific areas of Laboratory operations, policies and procedures (such as SBMS, Procurement or Accounting) and demonstrated skills in one or more specialized administrative functions (such as report/presentation preparation, conference/meeting planning) is desirable. Responsible for assisting staff within the Project Controls Group. Works independently within established procedures. Will assist in planning, budgeting, scheduling and provide weekly and monthly reporting for the ER Programs. May have frequent contacts with DOE and contractors within and outside the Laboratory to exchange technical, budgetary and other programmatic related information essential to assigned EMD Project Controls office functions. May direct the work of other support personnel. Environmental Management Directorate.

The following classified ads are listed as a courtesy to BNL employees. They are neither screened nor recommended by the Bulletin. Classified ad policy is posted in the Bulletin lobby or available on-line at ADDRESS .

Join S&SD in Holiday Donations To Domestic Violence Victims

For the past five years, Safeguards & Security Division (S&SD) personnel have been donating money and gifts over the winter holiday season to victims in shelters protected by the Suffolk County Coalition Against Domestic Violence and the Long Island Women's Coalition, Inc.

Led by Officer JoAnn Palumbo and Officer Kathy McNaught, S&SD members have been helping make a difference to the holiday spirit of many abused women and children. "Because we have had good support within our division, we thought other Lab people would also like to help," said Palumbo. "Just a few dollars or a gift means more women and children have a little brighter time over the holidays."

A donation bin has set up at the entrance to the circle at BNL's Main Gate and another will be at the North Gate barricade in the mornings only. If you would like to join this effort, you may drop your contribution in the bin after you show your badge. Gift items should be new, still in their packaging, but unwrapped. Or, send a check made out to Suffolk County Coalition Against Domestic Violence, in care of JoAnn Palumbo, Bldg. 50. The gift drive will continue until Thursday, December 20.

The shelters have provided a holiday wish list of useful gifts:

- **for children and infants**: pajamas, slippers, jeans, polo shirts, sweats, sneakers, craft sets, toys, computer/board games, preschool learning toys
- **for women**: sleepwear, gloves, sweaters, scarves, sweats, costume jewelry, cosmetics, perfume, knitting needles, yarn, computer/board games, restaurant coupons
- **household items**: linens, towels, sheet sets, pre-paid phone cards.

Volleyball Standings

BERA Volleyball League current standings as of December 7 are as follows:

Open League A

Death Volley	23 - 12
Shank, Carry, Throw	21 - 14
UCB Roof Company	21 - 14
Far Side	5 - 30

Mixed League 3

Upton Ups	14 - 4
New Blood	13 - 5
Net Workers	13 - 5
Net Setters	8 - 10
NWO	6 - 12
Newbies 3	0 - 18

Open League B

Easy Spikers	14 - 4
Late Entry	12 - 6
Setting Ducks	12 - 6
What Ball, Where?	11 - 7
PHENIX Fire	9 - 6
Starmageddon	7 - 8
Bumpin Uglies	3 - 15
Six Samurai	1 - 17

Mixed League 2

Nuts and Bolts	16 - 2
Upsetters	15 - 3
Group Sets	9 - 9
Spiked Jello	9 - 9
Underdogs	8 - 10
Wazups	6 - 12
Newbies 2	0 - 18

Here Comes Santa Claus!

For the 19th consecutive year, Santa Claus (who, this year, doubles as Firefighter Al Licata) and his Elf (Firefighter Frank Palmeri Jr.) will be coming to Upton town — to wish everyone happy holidays and to distribute candy canes with good cheer, complements of the Fire/Rescue Group of the Emergency Services Division.

On Monday, December 24, using Fire Engine #1 as their sleigh, Santa and his elf will make their rounds of BNL's offices, labs, and shops from 9 a.m. to noon. To make your reservation to have Santa and his merry crew visit your workplace at a specified time, call the North Pole, Ext. 2351.

Michael Herbert CN1-11-00

the Bulletin

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On the World Wide Web, the Bulletin is located at www.pubaf.bnl.gov/bulletin.html. A Weekly Calendar listing scientific and technical seminars and lectures is found at www.pubaf.bnl.gov/calendar.html.

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