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BROOKHAVEN NATIONAL LABORATORY

BNL Researchers Take NICEST Approach To Upgrading Nation's Infrastructure

Much of the nation's infrastructure - its roads, bridges, water and sewer systems, dams, tunnels, railroads, airports, etc. — is seriously deteriorated and obsolete. And many of the current technologies used for construction, maintenance and repair date back to the 1950s or earlier.

With seed funding of \$500,000 from the New York State Science and Technology Foundation, BNL has organized an initiative to help bring the U.S. infrastructure into the 21st century: Called the National Infrastructure Center for Engineering Systems and Technology Initiative (NICEST), it will develop, demonstrate and rapidly implement new infrastructure technologies.

James Powell and Morris Reich, ooth senior engineers in BNL's Deartment of Advanced Technology (DAT), initiated the multifaceted effort that will integrate research, manufacturing and construction organizations into a focused team to improve infrastructure technologies.

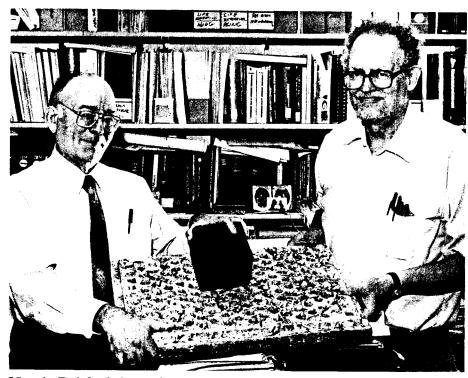
In addition to Brookhaven, NIC-EST includes Northrop-Grumman, Raytheon-Ebasco and 13 leading universities in the New York region. As NICEST grows, additional members are expected to join.

"Many of the new technologies developed by the national labs and the defense industry can be readily adapted to infrastructure needs," Powell said. "They can enable breakthroughs in rapid construction, lower cost, better maintenance and repair, quick diagnosis of deficiencies, and much longer operational life."

Repair & Rebuild for Less

Using traditional repair methods, the U.S. would have to spend \$150 billion annually on infrastructure over the next 20 years to stop further deterioration and fix the worst deficienies. Further funds would be needed for improvements and expansion to accommodate an ever-increasing population.

"We could cut the cost of repairing



Morris Reich (left) and James Powell, both from the Department of Advanced Technology, display two new materials that have been developed at BNL for improving infrastructure. The large, flat sample, made from recycled waste materials, is much stronger than concrete and can be used for bridge decks, highway sections, buildings, etc. The smaller cube is a chunk of "ironable" asphalt that can be rapidly reworked in place to restore a road to its original state.

and rebuilding the infrastructure in half by using the expertise and resources of NICEST," Powell explained.

NICEST will use an integrated systems approach to develop new infrastructure technologies, carrying through each project from the basic research phase to field implementation. Reich explained, "It's not enough to just develop a new material or widget. To actually get to the marketplace, it must be integrated into a complete system that is tested and demonstrated at full-scale under realistic conditions with the participation of industry and the appropriate code committees."

Developing New Technologies

As part of the consortium, BNL is developing a number of new technologies that should yield major payoffs in the near future.

They include a rapid trench-opening robot, or RAPTOR, a high-speed concrete cutter that will be much faster than jackhammers or concrete saws; "ironable" asphalt that can be rapidly reworked in place to eliminate potholes, cracks and bumps; and magnetic imagining, or MAGI, a magnetic sensing device to locate and inspect underground pipes and internal steel reinforcement in concrete.

In addition, NICEST is studying the use of recycled waste materials for prefabricated, mass-produced, longlasting bridge decks and highway sections. "We are working on low-cost construction materials that are very sturdy and long-lasting," said Reich. "A typical bridge built with conventional materials lasts about 30 years.

Coming Up

Nuclear Engineer William Horak, Department of Applied Science, will deliver the 311th **Brookhaven Lecture on Wed**nesday, December 13. Entitled "Ten Years After Chernobyl: Soviet-Designed Reactor Safety Today," his talk will begin at 4 p.m. in Berkner Hall.

Using NICEST materials and new repair and inspection methods, a bridge could last 70 to 80 years."

Other ideas involve ultra-durable protective coatings, robotic devices to repair and strengthen underground water mains and sewers without digging, and better methods to handle and dispose of toxic waste, sewage sludges, dredge spoils and other

NICEST will also develop comprehensive computer databases on new infrastructure technologies and projects for contractors. For workers in the field, NICEST experts would be available to help via high-definition, large-screen television, two-way communication links, using the planar optic flat-panel display developed by James Veligdan, another DAT staffer involved with NICEST (see Brookhaven Bulletin, September 26, 1995).

Test Facilities Planned at BNL

The consortium also plans to establish a full-scale user facility at BNL to test new technologies under realistic field conditions. Besides building new facilities on site for testing materials used in bridges, highways and pipes, the consortium will use the multidisciplinary expertise of the Laboratory to conduct infrastructure-related research. Talent will be tapped from various BNL departments.

"In addition to improving the nation's infrastructure, we expect that NICEST could bring thousands of new high-tech jobs to New York State and particularly to Long Island," Powell said. "It will also provide support for colleges in New York State. The national laboratories and the defense sectors could shift their focus to public infrastructure needs."

- Diane Greenberg

Focus on Women's Programs



Women's Program Coordinator Victoria McLane (seated, center) relies on the Women's Program Advisory Committee (WPAC) for advice and support of the Lab's programs for women. On the WPAC for the current fiscal year are: (seated, from left) Barbara Schmidt, Human Resources Division; McLane; ex officio member Lorraine Merdon, Diversity Office; Nina Leonhardt, Office of Educational Programs; (standing, from $left)\,new\,members\,Sydell\,Lamb, Biology\,Department, and\,Dorry\,Tooker,$ Office of Technology Transfer; Patricia Durcan, Budget Office; Marilyn Pandorf, Human Resources; and new member Michiko Tanaka, Information Services Division.

Public Meeting at Lab Next Week On Environmental Remediation

A public meeting will be held at BNL on Wednesday, December 6, to present plans for dealing with a specific area of environmental contamination on the Lab site. Known as Operable Unit IV, this area includes the steam plant, as well as a facility used in the 1950s to clean radiologically contaminated clothing and equipment. The meeting will begin at 7:30 p.m. in Berkner Hall, and the public is invited to attend.

During the meeting, BNL staff will summarize the nature and extent of contamination within Operable Unit IV, risks to public health and the environment in the absence of cleanup, how cleanup options were developed and evaluated, and proposed cleanup measures.

Documents pertaining to Operable Unit IV are available at BNL's Research Library, Bldg. 477, as well as public libraries in Shirley and Middle Island. The 30-day public-comment period ends December 22, and oral and written comments are welcome at the December 6 meeting.

Environmental remediation at BNL is carried out under requirements of the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, commonly known as the Superfund Law.

BNL is on the Superfund list primarily due to past operations that have resulted in soil and groundwater contamination that potentially threaten Long Island's aquifer.

Remediation work is conducted under the framework of an interagency agreement among New York State, the federal Environmental Protection Agency and the U.S. Department of Energy, which has jurisdiction over the BNL property and pays for all cleanup costs.

For more information on the meeting, call BNL's Office of Environmental Restoration, Ext. 3129 or 5195.

Brookhaven Bulletin December 1, 1995

Help Students by Remembering Greg Persson — Through the United Way

One terrible day in 1983, Ralph Persson and his wife Jane learned that their 14-year-old son, Greg, had been fatally injured in a car accident. Ralph Persson is familiar to many BNLers as one of the Upton Post Office staff since 1980, or from his work in the then Photography & Graphic Arts Division, 1958-75.

After their son's death, both the Perssons were determined not to let Greg's memory fade, and they wanted to help other young people to fulfill dreams that they had had for their own son.

So, with donations from friends and family, they started the Greg Persson Memorial Scholarship Fund at Shoreham-Wading River High School.

As a result, each year, a prize is given for the best senior writer, and two small cash awards are made to students within groups who need special assistance. The main part of the award, however, is a scholarship in computer science for a student chosen by the school faculty.

"The first year, the winner was Rachel Droisen, who was in Greg's class," said Persson. "She graduated from Columbia University, then studied medicine at [the State University of New York (SUNY) at] Stony Brook. We got a wonderful card from her this summer to say she had just qualified as a doctor and that she was starting her residency in emergency medicine in Chicago.

"We get many letters from the students and their teachers," said Persson. "If you only read a small sample of them, you can see why the scholarship fund is so important and worthwhile. We wish we could do more, but at least we know that our efforts make a difference."

In 1991, the winner was Dennis Gallagher, now a graduate student in systems technology at SUNY Stony Brook. Gallagher, who incidentally is the son of Edward Gallagher, Management Information Systems Division, used the scholarship for his B.S. in applied mathematics and statistics, which he also took at Stony Brook.

"But when the scholarship started, we were able to give the winner \$3,000 a year for four years," said Persson. "Five years later, when Dennis won, there was only enough money to give \$1,500 for two years. Then in 1993, we once again had to scale back to our present program, a scholarship for one year only. So we applied to the United Way for help."

Because the Perssons have a fully accredited trust, donations are tax-deductible. "One hundred percent of the money we receive goes to the fund," declared Persson. "Any expenses are paid for by Jane and me. Now, by applying for



Ralph Persson (center) and his wife Jane created the Greg Persson Memorial Scholarship Fund to honor their son's memory. Above, at the Upton Post Office where he works, Persson meets with BNL United Way Fund Drive Chair Michelle Cummings and Co-Chair Pete Esposito to discuss how the scholarship fund will be helped this year because it is now one of the United Way's causes.

support through the United Way, we believe more people will learn about our goals and may want to help. We hope we'll be able to go back to the original \$3,000 award and keep it going for each winning student for four years, as we would have liked for Greg."

Said BNL's United Way Fund Drive Chair Michelle Cummings, "This year, you can request that your donation go to a particular cause among the list of about 160 service agencies, institutions and trusts helped by the United Way. If you name the Greg Persson Fund, that's where your money will go."

Cummings urges that BNLers send in their pledge cards right away. As usual, prizes will be drawn from among pledges received by December 15, the end of the drive. The earlier the pledge, the easier it is for the United Way to know how much support each agency can count on.

Thanks to the generosity of Associated Universities, Inc.; the Long Island Guards Union No. 37; Local 8-431 Oil, Chemical and Atomic Workers International Union: and Local 2230 International Brotherhood of Electrical Workers, prizes include dinners for two and a grand prize of a dinner-and-theater weekend for two in New York City.

— Liz Seubert

Money Talks

Funding Options For College

The ever-escalating cost of high reducation has left many parents won dering how they can possibly provide for the cost of a four-year college education for their children. Where will the money come from?

To answer this question, "What You Need to Know About College Funding Options" will be presented as the next lecture in the Money Talks series. Sponsored by the Human Resources Division, the talk will be given by a representative from American Express Financial Advisors Inc. on Thursday, December 7, from noon to 1 p.m. in Berkner Hall. All are invited.

As the speaker will discuss, it is projected that the future college costs for a child who is now five years old will be \$80,000 for a state institution or over \$200,000 for a private one. Investment planning for college will be outlined, as well as the use and availability of scholarships, financial aid and loans.

To register, return the completed bottom portion of the blue Money Talks flyer recently sent to all employees to Denise DiMeglio, Bldg. 185, by Friday, December 1.

Equipment Demos

At Berkner Hall on Tuesday, December 5, from 9 a.m. to 3 p.m., Exphil Calibration Labs, Inc., will feature products from Tektronix and Fluke. For instance, the new TDS380 digital real-time oscilloscope, which comes standard with 400 MHz bandwidth, 2GS/sec, floppy disk and FFT, will be displayed. In addition, the new Tektronix Tekscope and the popular Fluke scope meter will be demonstrated.

On Wednesday, December 6, from 11 a.m. to 2 p.m. in Berkner Hall, Alpha Wire Corporation and Broadline Electronics will display their new products, and new master catalogs will be available.

Outreach Workshop How to Change, Part I

The universe is change: our life is

The universe is change; our life is what our thoughts make it.

— Marcus Aurelius Antonius, 121-180

Whether out of necessity or desire, changing oneself is one of the hardest tasks faced by human beings, though it is one of the most rewarding when done effectively. To examine how to change effectively, the Employee Assistance Program (EAP) of the Occupational Medicine Clinic will present a four-part Outreach workshop entitled "Removing Barriers to Effec-

The first part, "A Roadmap to Assessing Barriers to Your Effectiveness," will be presented by clinical psychologist Carol Noble on Tuesday, December 5, from noon to 1 p.m. All are invited, and the talk will be available afterwards on cassette in the Research Library, Bldg. 477.

Noble will outline the kinds of roadblocks that people put before themselves that prevent their being effective and changing. She will present insightful tools that may be used to examine these barriers in a thorough self-assessment. As Noble will explain, this assessment will lay the foundation for establishing realistic goals, the second step in the change process.

The three subsequent sessions will be held next spring and will, respectively, acquaint participants with the stages and processes of change; help them overcome the resistances that people in the process of change commonly encounter; and introduce the means by which change may be sustained and self-assessment may become an ongoing life process. More information on these talks



mation on these talks will be provided in future issues of the Bulletin.

Carol Noble, Ph.D. is a licensed clinical psychologist with a private practice in Roslyn Heights, specializing in stress management, conflict resolution, relationship difficulties and life transitions. A former consultant to the Long Island Medical Department of NYNEX, she now works with a medical network and multi-specialty women's health center, developing mental health services to promote and maintain physical well-being.

To register for the first part of this workshop, return the bottom portion of the Outreach flyer recently mailed to all employees to EAP Staff Psychologist Dianne Polowczyk, Bldg. 490, by Monday, December 4. For more information about EAPs, call Ext. 4567.

Atlantic City Trip

A few seats remain for the next BERA-sponsored, one-day trip to the Trump Castle Hotel and Casino on the marina in Atlantic City, on Saturday, December 9. The initial cost will be \$22, but the hotel-casino will give a \$15 coin return.

Buy tickets at the BERA Sales Office, weekdays, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or Kay Dellimore, Ext. 2873.

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

Circulate Your Blood!

A two-day blood drive will be held Thursday and Friday, December 7-8, from 10 a.m. to 3 p.m. in the Brookhaven Center.

Two pledge cards have been sent to each employee so that friends or relatives may also join the BNL campaign. Those who choose to give the gift of life this holiday season will also find a new box on the pledge card that they may check if they are interested in possibly donating bone marrow at a future date.

For more information about this new program or about any aspect of donating blood, call Blood Drive Chair Susan Foster, Ext. 2888, or contact the appropriate Blood Drive Captain listed below:

| Dept. | Captain | Bldg. | Ext. | Dept. | Captain | Bldg. | Ext. |
|--------|-----------------------|-------|------|-------|-------------------|-------|------|
| AGS | Elliot Auerbach | 911A | 3947 | ISD | Jack Laurie | 197B | 7640 |
| | Arthur Piper | 911A | 7934 | | Catherine Green | 477 | 3484 |
| AUI | Elliott Levitt | 134A | 2495 | Med. | Marta Nawrocky | 490 | 3592 |
| Bio. | Richard Sautkulis | 463 | 3386 | MIS | Michael Seidman | 459 | 2242 |
| CCD | Ronald Yuhas | 515 | 2000 | NSLS | Pat Powers | 510E | 4828 |
| Chem. | Jean Petterson | 555A | 4302 | | Kathy Loverro | 725C | 7188 |
| CSD | Richard Spellman | 462U | 3351 | OMC | Maureen Sacker | 490 | 3671 |
| DAS | Betty Ivero | 179A | 2452 | PE | Marilyn Johnson | 134C | 2546 |
| | Claire Lamberti | 318 | 3051 | | Marilyn Zane | 134C | 5075 |
| | Corinne Messana | 318 | 7398 | | Ron Mulderig | 326 | 3084 |
| | Rangasayi Halthore | 426 | 7920 | | Tirre Farmer | 452 | 3288 |
| | Arlean Vanslyke | 490D | 2387 | Pers. | Marsha Kipperman | 185 | 2871 |
| | Maryann Larese | 480 | 3508 | Phys. | Liz Mogavero | 510A | 3940 |
| | Fran Donnelly | 526 | 4835 | | Sandy Asselta | 901A | 4550 |
| | Eileen Morello | 815 | 4519 | Reac. | Randi Vogt | 120 | 4043 |
| | Barbara-Jean Carreres | 815 | 2418 | | Nick Houvener | 750 | 4436 |
| DAT | Cheryl Conrad | 130 | 2272 | RHIC | Suzanne Agnetti | 817 | 7931 |
| | Kathleen Nasta | 130 | 2267 | | Vera Mott | 902A | 710f |
| | Theresa Legault | 197C | 3377 | | Ray Shah | 902A | 323. |
| | Maryann Musso | 197C | 2352 | | Mary Campbell | 1005 | 2719 |
| | Kara DeCastro | 475B | 3643 | SEP | Sheila Bubka | 51 | 3144 |
| | Marjorie Chaloupka | 475C | 2746 | | Donald Dains | 535A | 7494 |
| | Maria Beckman | 703M | 2301 | | Michael Carroll | 599 | 2351 |
| | Paul Lageraaen | 830 | 2777 | SMD | Michael Guacci | 211 | 2976 |
| DCP | Nancy Harris | 355 | 3888 | SSD | Sylvia Mouzakes | 179B | 2531 |
| DO | Janet Sillas | 134 | 2345 | S&SD | Sharon Jones | 30 | 2493 |
| DOE | Clare Appleton | 464 | 7812 | | Sharol Busby | 50 | 2238 |
| Fiscal | Doreen Hallinan | 134B | 2457 | | Mindy Markstaller | 50 | 2280 |
| Instr. | Raymond Dumont | 535B | 4243 | | Ted Heuer | 703 | 5645 |

Healthfest '95 — Four Days of Health, Safety & Fitness

This year's Healthest, BNL's third celebration of personal health, fitness and safety, drew more employees to more activities and exhibits than befre—and, for the first time, atwacted their families to special events held on Saturday.

Healthfus '95 began on Wednesday, October 11, with 52 employees stretching before the Employee Fitness Walk, in which 315 BNLers paced themselves over 2 miles.

Then, on Thursday, October 12, the pre-run stretch involved 25 BNLers, while 111 completed the 5-kilometer Employee Fitness Run (see results below).

The two-day Health, Fitness & Safety Fair in Berkner Hall drew 36 exhibitors and approximately 500 employees on Friday, October 13, while some 350 adults and 95 children came to the Lab for the Healthfat's family day on Saturday, October 14,

During those days, some 40 took part in a stress management and relaxation techniques workshop, eight



Members of the BNL Aerobic Dance Club lead participants in warming up before the Employee Fitness Walk.

participated in family tennis, 16 played all-star basketball, 20 took ballroom and country/western dance lessons, 45 went on a family fitness bicycle ride, 40 took part in the family fitness swim, 75 children painted pumpkins, and 1,150 Nabisco low-fat snacks were consumed.

In addition, 288 participants had their cholesterol checked; 226 had their pulmonary function tested; 143 had their blood pressure measured, resulting in 24 referrals and one referred for immediate attention; and 59 employ-

ees or their children took part in the podiatry foot screening.

In two drawings at the fair, the following employees were the lucky winners of door prizes: Ray Atkins, Marsha Belford, David Burr, George Cafetan, Bill Christie, Alice Costantin, Minette Cummings, Giuliano De-Grassi, Don DiMassino, Denise Di-Meglio, Pat Flood, Ralph Fullwood, Pat Kriss, Michelle Li, Michael Losquadro, Mike O'Brien, Philip Pizzo, Jack Russell, Camille Saville, Yannis Semertaidis, John Skaritka, Jing

Wang and Chris Wong.

"We thank everyone who volunteered their time and put in the effort to make Healthful '95 a success and of interest not only to employees, but also to their families," comments Health Promotion Specialist Mary Wood, Occupational Medicine Clinic (OMC), who chaired the Healthful '95 planning committee and reported to an executive committee.

The former consisted of: Marsha Belford, Public Affairs Office; Frank Biele, Safety & Environmental Protection (SEP) Division; Sharol Busby, Safeguards & Security Division: M. Kay Dellimore, Human Resources (HR) Division; Denise DiMeglio, HR; Pat Flood, Information Services Division; William Fortunato, SEP; Marilyn Gibbons, Plant Engineering (PE) Division; Augie Hoffman, Physics Department; Diane Hatton, Chemistry Department; Ken Mohring, Staff Services Division (SSD); Christine Ronick, SSD; Jack Russell, Division of Contracts & Procurement; Mickey Sacker, OMC; Edward Sperry, Relativistic Heavy Ion Collider Project; and Patricia Williams, PE.

The executive committee included: Bryce Breitenstein, OMC Manager; Robert D'Angio, HR Manager; M. Sue Davis, Associate Director for Reactor, Safety & Security; and Richard Setlow, Associate Director for Life Sciences.

Healthfest '95 — Results of 5K Employee Fitness Run

| Name | Time | Name |
|---------------------|-------|-----------------|
| 'Trevor Sears | 16:01 | Tim Powers |
| *Curt Koehler | 16:20 | John Helser |
| David Phillips | 17:35 | Peter Cameron |
| Paul Geiger | 18:01 | Dan Weiss |
| Don Shea18:09 | | John Millener |
| "Jerry Hastings | 19:26 | John Pagano |
| 'Mike Mapes | 19:32 | *Wen-Shi Yu |
| *Emmanuel Onillon | 19:37 | Barry Karlin |
| *Gavin Watson | 19:44 | Robert Todd |
| Jeff Yablon | 19:58 | Phil Plunkett |
| Wolfgang Caliebe | 20:32 | Peter deToll |
| "Wayne Rambo | 20:35 | Malry Tardd |
| Bill Thomlinson | 20:56 | Jacel Capala |
| Marc Puich | 21:18 | John Duggan |
| Don Litcher | 21:24 | John Flannigan |
| 'Rebecca Studebaker | 21:33 | Michael Paquett |
| John Bohenek | 21:37 | Gary Nitzel |
| 'Helmut Thiel | 21:40 | "Michiko Miura |
| James Kos | 21:40 | Mow Lin |
| Michael Fulkerson | 21:42 | Ray Duffield |
| Michael Seidman | 21:44 | Tom Clifford |

| | | | _ |
|-----------------|-------|------------------|-------|
| ame | Time | Name | Time |
| im Powers | 22:09 | Robert Sikora | 24:20 |
| ohn Helser | 22:34 | Peter Kohut | 24:30 |
| eter Cameron | 22:36 | Ben Ocko | 24:39 |
| an Weiss | 22:40 | Richard Wall | 24:40 |
| ohn Millener | 22:43 | *Sharon Wang | 24:44 |
| ohn Pagano | 22:47 | John Young | 24:48 |
| Ven-Shi Yu | 22:47 | Craig Diaz | 25:02 |
| arry Karlin | 22:48 | Lewis Lian | 25:10 |
| obert Todd | 22:56 | Bhayesh Patel | 25:19 |
| hil Plunkett | 22:58 | Joseph Klemish | 25:29 |
| eter deToll | 23:07 | Jay Adams | 25:30 |
| lalry Tardd | 23:07 | Leon Goudikian | 25:46 |
| acel Capala | 23:22 | Brian Erickson | 25:49 |
| hn Duggan | 23:31 | Pepin Carolan | 25:52 |
| hn Flannigan | 23:45 | Pooran Singh | 25:56 |
| ichael Paquette | 23:45 | James Hainfeld | 26:10 |
| ary Nitzel | 23:46 | "Sheryl Carey | 26:12 |
| Iichiko Miura | 23:50 | Lisa Miller | 26:21 |
| ow Lin | 23:52 | *Joyce Towell | 26:22 |
| ay Duffield | 23:53 | Peter Palamidis | 26:32 |
| om Clifford | 24:07 | *Donna-Ree Rodri | guez |
| ichard Wagener | 24:08 | | 26:35 |
| effrey Coderre | 24:17 | John Mollica | 26:41 |
| | 1// | | |

| Al Borelli | 26:43 |
|--------------------|-------|
| Danny Padrazo | 26:46 |
| Jing Wang | 27:18 |
| John Parise | 27:22 |
| Stephen Shapiro | 27:22 |
| Richard Conte | 27:23 |
| Roger Davis | 27:24 |
| Michael Villaran | 27:24 |
| John Schill | 27:25 |
| Joseph Brennan | 27:25 |
| *Margareta Rehak | 27:29 |
| Joe Woicik | 27:41 |
| David Pate | 27:51 |
| *John Toner | 28:27 |
| Samuel Velazquez | 28:33 |
| Ray Weber | 29:05 |
| Chris Harly | 29:10 |
| Gerardo Martinez-G | uridi |
| | 29:58 |
| Michael Losquadro | 30:05 |
| Kathleen Geiger | 30:22 |
| Beth Yu Lin | 31:13 |
| Tony Tanza | 31:19 |
| | |

Name

Time Inan Feng Robert Sullivan 32:05 *Noreen Michaelsen 32:56 Keith Radich 33:10 John Guthy 33:15 Brenda Riddle 33:16 Richard Stoner 34:06 William McGahern Bonnie McGahern 34:43 "Y.Y. Chu 34:51 Gail Brown 36:14 Laura Ayres 36:15 *David Ålburger 36:58 John Axe 37:24 Swapna Mukherji 37:46 Dond Bun 38:25 Rita Kito 38:26 Mary Grace Meier 38:28 Martha Simon 38:36 Jim Durnan 38:37 Sharon Spark *age-group wirmers

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

21:52

Three Fridays — December 1, 8 & 15 10 a.m. to 3 p.m., Bldg. 701

Volleyball

George Meinken

Bom Soon Lee

Standings as of November 28

| Open Leag | gue | League I | | |
|------------------|---------|-------------------|------|--|
| Pass, Set & Crus | h 19-5 | Bikers 'n Spikers | 13-5 | |
| Monday Maulers | 3 20-7 | Rude Dogs | 12-6 | |
| Far Side | 10-14 | Scared Hitless | 11-7 | |
| Spikers | 10-14 | No Names | 8-10 | |
| Bud Hitters | 4-23 | Underdogs | 1-17 | |
| League l | Ι | League III | | |
| Safe Sets | 17-4 | Silver Bullets | 12-3 | |
| Spiked Jello | 16-5 | Joy of Sets | 9-3 | |
| Monday Nite Liv | e! 14-7 | Upton Ups | 9-3 | |
| Fossils | 12-9 | Just 4 Fun | 8-4 | |
| Nuts & Bolts | 10-11 | Harlem Knights | 7-8 | |
| Jolly Vollies | 7-14 | DO-DAT | 5-7 | |
| Volley Folly | 6-15 | High Volley'em | 5-10 | |
| Night Court | 2-19 | New Comers | 4-11 | |
| | | OER | 1-11 | |

BROOKHENEN BULLETIN

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

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



BERA is again participating in the Brookhaven Town Toy Drive, so please bring in new toys or gifts for needy children, infants through teens, to make their winter holidays happy ones. Toys, preferably new, will be accepted at the BERA Sales Office, weekdays, 9 a.m.-1:30 p.m., until Wednesday, December 20. For more information, call Andrea Dehler, Ext. 3347.

Four Artworks Judged Winners

Over 200 art lovers attended the BERA Art Society's Fall Festival of Art last month, and all were invited to cast ballots for Best in Show and Best in Science among the artworks exhibited by employees, their family members, retirees and BNL guests.

"The quality of the work exhibited was just outstanding, and there were many close contenders," said Robert Chrien, president of the Art Society, which awarded a bottle of wine to each of the winners. "It was so close, in fact, that there was a three-way tie for Best in Show"

The three Best in Show winners were: Anne Meinhold, for her wood sculpture Seashell; Buzz Rundlett, for his wood sculpture Calvary Cataclysm; and Nick Weih, for his oil painting Birch Creek. Each of these winners had several entries in the festival and had garnered votes for those as well.

The Best in Science award for a work specifically inspired by BNL science or the BNL site went to Brian Karpin, for his mixed media piece entitled *Monument to Science*.

AA Meetings to Resume in January

During the holiday season, the on-site Alcoholics Anonymous (AA) group will not meet on its usual Mondays. Next year's meetings will commence on Monday, January 8, to continue every Monday thereafter. The Employee Assistance Program (EAP) welcomes calls on Ext. 4567 from those with alcohol or other problems that may arise during the stressful holiday season.

C/W Dance Tonight

Tickets are still available for the Country/Western (C/W) Dance dance being held tonight, Friday, December 1, from 7:30 to 11:30 p.m. So pull on your boots and ride on down to the North Room of the Brookhaven Center to join the BERA Country/Western Club for an evening of partner and line dancing, hor d'oeuvres, door prizes and a cash bar. Experienced hands and greenhorns alike are welcome, as instruction will be offered by Judy & Paul Cutler. Purchase tickets, at \$10 per person, from Marilyn Johnson, Ext. 2546, Bldg. 134, or at the door.

Calling All Carolers

The BNL Choral Group will present its annual Christmas Concert in the Cafeteria, at the Christmas luncheon on Wednesday, December 20.

Though rehearsals have started, singers are still welcome for all parts: soprano, alto, tenor and bass. Future rehearsals will be held at noon sharp as follows: Monday, December 4; and Friday, December 8; Monday, December 11; Thursday, December 14; Monday, December 18. All rehearsals will be in Berkner Hall except on December 11, which will be in the North Room, Brookhaven Center. For more information, call John Weeks, Ext. 2617, or Janet Sillas, Ext. 2345.

Service Awards

The following employees celebrated BNL service anniversaries during the month of November 1995:

35 Years William A. De Vito.....RHIC Harald Hahn.....RHIC 30 Years Franklin C. Densing.....Instrum. Ruth K. Merker.....Mgmt. Info. Sys. Raymond M. Zaharatos.....AGS 25 Years Robert J. Beuhler.....Chemistry John G. Schmidt. Instru 20 Years Jack Allentuck......Adv. Tech. Maria C. Beckman.....Adv. Tech.Samuel Cortes.....Sup. & Mat'l. Andrea L. Epple.....Saf. & Env. Prot. Dennis J. Fuzie.....Staff Serv. Frederick D. Kobasiuk.....AGS Vincent Lettieri.....Reactor Keith F. LewinApp. Science Stephen E. Mercier.....Plant Eng. Arthur N. Otis Jr.....AGS Beatrice E. Pyatt......Medical

| Henry J. Schnakenberg. | Medical |
|------------------------|-----------------|
| 10 Years | |
| Carol S. Archer | Budget |
| David G. Bingham | Reactor |
| Edwin P. Cancel | Sup. & Mat'l. |
| Ruth A. Fernow | Director's Off. |
| Michele M. Hale | Info. Serv. |
| Alexsandra J. Lopez | Adv. Tech. |
| Chris F. Masullo | Comp. & Comm. |
| Jeffrey V. Mirando | Sup. & Mat'l. |
| Sorin Pop | NSLS |
| Mihai Radulescu | NSLS |
| Marcelino Santiago Jr | Sup. & Mat'l. |
| Bonnie E. Sherwood | RHIC |

Arrivals & Departures

Arrivals

Brett A. MageeCent. Shops
Departures

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

Michael P. Wooley.....Plant Eng.

Bowling

Red and Green League - 11/7

E. Larsen 247/627 scratch series, B. Geib 246/618 scratch, K. Asselta 245/615 scratch, R. Mulderig 235/201/605 scratch, A. Warkentien 222/207, K. Riker 222, H. Dawson 220, R. Eggert 214/212/605 scratch, J. Griffin 214/214, H. Arnesen 214, R. Larsen 211, W. Powell 206, T. Prach 205, J. Goode 201, E. Meier 200.

Purple & White League - 11/9

M. Guacci 255/232/214/701 scratch series, M. Meier 244/185, J. McCarthy 236/206/184/626 scratch, S. DiMaiuta 226/213/211/650 scratch, D. Riley 224, Doug Fisher 214/207, R. Raynis 211/190, Diana Fisher 202, A. Pinelli 198, Don King 192, C. Wood 190/172, R. Larsen 189/185, T. Mehl 189, A. Almasy, 187, J. Blydenburgh 185, J. Flanagan 185, J. Pinelli 185, P. Callegari 182, R. Wiseman 181, M. Musso 178, D. Botts 172, D. Klein converted the 5/7 split.

Cafeteria Menu

| Monday, December 4 | |
|--------------------------------------|----------|
| Soup: Black bean w/cilantro | .90/1.20 |
| A la Carte: Turkey à la king | 3.85 |
| Lite: Baked flounder julienne | 3.95 |
| Deli: Pork loin | 3.20 |
| Grill: Swordfish teriyaki | 3.30 |
| Tuesday, December 5 | 3.33 |
| Soup: Cream of broccoli | .90/1.20 |
| A la Carte: Meatloaf w/mushroom sau | |
| Lite: Baked chicken w/cranberry glaz | |
| Deli: Turkey w/stuffing | 3.20 |
| Grill: Western omelet | 3.30 |
| Wednesday, December 6 | |
| Soup: Chicken gumbo | .90/1.20 |
| Display Cooking: Cajun foods | 4.75 |
| Deli: Roast beef w/mashed potatoes | 3.20 |
| Grill: Spicy wings w/bleu cheese | 3.30 |
| Thursday, December 7 | 3.33 |
| Soup: Country vegetable | .90/1.20 |
| A la Carte: Country ham w/redeye gra | |
| Lite: Baked cod w/peach-pepper sauc | |
| Deli: Corned beef w/boiled potatoes | 3.20 |
| Grill: Tex-Mex taco bar | 3.30 |
| Friday, December 8 | 0.00 |
| Soup: Manhattan clam chowder | .90/1.20 |
| A la Carte: Stir-fry beef | 3.95 |
| Lite: Stir-fry chicken | 3.95 |
| Deli: Baked ham & beans | 3.20 |
| Grill: Tuna melt | 3.30 |
| | 3.00 |

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 Division, 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 Personel 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 physics or medical physics, or related field, to join the medical program of the NSLS. Experience in synchrotron-radiation x-ray experiments with an emphasis on image processing is highly desirable. At present, active programs include, but are not limited to, human coronary angiography, mammography and radiation cell biology. Contact: William Thomlinson, National Synchrotron Light Source Department.

POSTDOCTORAL RESEARCH ASSOCIATE - Trained in chemistry or chemical engineering, with a strong background in the use of ultrahigh vacuum techniques for surface characterization and chemical reactors for catalytic studies under high-pressure conditions. The research program will involve studies of the structural, electronic and chemical properties of metal and metal-oxide surfaces. Contact: José Podriguez, Chemical properties

Rodriguez, Chemistry Department.

POSTDOCTORAL RESEARCH ASSOCIATE -Trained in atomic, molecular and optical physics. Preference will be given to candidates with experience in ultrashort laser-pulse technology and coherent shortwavelength (UV/XUV) generation. Contact: Louis DiMauro, Chemistry Department.

Motor Vehicles & Supplies

95 HONDA CIVIC DX - coupe, 9k mi., 5-spd., m/t, ac, Sony am/fm cass., must sell, \$13,500. Tom, 345-3843

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

93 CHEVY SUBURBAN 4x4 - 2500 series, 454 FI, black/silver, sun visor, side steps, tow pkg., loaded, 27k mi., dual ac, mint, \$25,995. Ted, Ext. 4289.

92 DODGE RAM 250 - low mi., loaded, capt. seats, ext. cab, ext. warr., mint, \$14,500. 732-1913.

91 CAMARO RS 305 - a/t, like new, white, 53k mi. 736-2575. Frank, Ext. 3499.

89 CHEVY CORSICA - a/t, cruise, tilt, \$2,100. Gabriel, Ext. 2707.

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

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

89 VOLKSWAGEN FOX - blue, 4-dr., m/t, am/fm cass., ac, 68k mi., excel. cond., must sell, \$3,500. Sonja, Ext. 1010.

89 JEEP CHEROKEE LAREDO - black, 2-dr., p/w, p/l, am/fm cass., 87k mi., \$8,500. Hal, 447-3935.

88 FORD FESTIVA - silver, 35 mpg, m/t, good cond., one owner, good station car, no dents, \$1,500 neg. 472-3254.

87 TOYOTA COROLLA LE - 4-dr., a/t, ac 103k mi., runs well, needs work, \$2,000 firm. Joe Ext. 2212.

87 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.

87 PLYMOUTH RELIANT LE - 4-dr., 2.5 eng., ac, a/t, p/b, p/s, 76k mi., clean, one owner, \$3,000. Ed, Ext. 4437 or 581-1509.

87 BUICK CENTURY - 4-dr., a/t, ac, 6-cyl., 125k mi. \$1,600. John, Ext. 4203.

86 PONTIAC FIERO GT - 4-spd., ac, cruise p/w, \$2,100 neg. 928-2708.

86 TOYOTA SR5 - 2-dr., a/t, am/fm, 2-yr. old ac, 47k mi., sporty looking, excel., \$3,500 neg. 765-1075.

86 FIREBIRD - T-top, a/t, V-6, ac, runs well, \$1,600 neg. 878-1617.

85 SUBARU GL - 4-dr. sedan, 103k mi., 5-spd., p/s,

\$800 neg. Fulong, Ext. 2333. 85 NISSAN SENTRA - red, reliable but needs work.

int. good cond., \$600 or best offer. Minette, Ext. 4726. 85 MERCURY WAGON - 9/95 rebuilt eng., excel., \$1,400; '81 Lincoln Town Car, 10/94 rebuilt eng., ask. \$1,800. Ed, Ext. 4846 or 363-6940 after 5 p.m.

85 RENAULT ENCORE - low mi., 4-spd., runs well, \$300 neg. Bill, Ext. 3937 or 286-8195 after 6 p.m.

84 VOLVO WAGON - 4-dr., diesel, m/t, 6-cyl., 68k mi., dependable, 30+ mpg, \$1,600. Tony, 298-1932.

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

84 PONTIAC PHOENIX - 2-dr., a/t, ac, p/w, am/fm, 67k mi., good cond., asking \$1,200. Juan, Ext. 4077

83 HONDA CIVIC WAGON - 5-spd., runs well, exhaust system needs work, \$200. Ed., Ext. 3622 or 744-2905.

82 CADILLAC SEDAN DE VILLE - green, cruise, 150k mi., new tires, recently tuned up, runs well, \$1,200 neg. Giuseppe, Ext. 5336, or Fleming house, room 39. 81 CORVETTE - side skirts, front spoiler, turbo hood, rear doubler spoiler & louver, new suspension, T-top,

78 CHEVY BLAZER 4x4 - V-3, mech. sound, body not bad, \$1,250. 924-0705.

center lines, fully loaded. 399-7744.

fuel-inj., low mi. Wayne, Ext. 3084.

70 CHEVY JAVELIN 283 - Fuclie heads, Ford 9" rear, turbo 400 trans., good shape, fast. Anthony, 928-8010 after 7 p.m.

30 CADILLAC LASALLE - V-8, 4-dr., dual side mounts, restored, best offer. Ext. 2272 or 732-7634.

CAP - fits Toyota pickup, 6' short bed, red, fiberglass,

v.g. cond., \$400 neg. Mark, Ext. 7859.

PARTS - Ford, 302 alum. intake manifolds, headers, Mallory electronic distrib. '88 stock 5.0 roller motor,

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

SHOP SERVICE MANUAL - for '93 Chevy S-10 pickup, 3-vol. set, cost \$50, selling for \$25. Joe, Ext. 2898.

TRANSMISSION - Ford, C-4, fits 289 or 302, \$50.

Furnishings & Appliances

BAR - wicker, \$30; washer, Kenmore, \$50 or best offer. Tom, 744-4535.

BED-Serta Supreme, full, bed frame, $1\frac{1}{2}$ yr. old, \$170; 6-drawer dresser, \$15; computer desk, Sander, $1\frac{1}{2}$ yr. old, \$70; bookshelf, Sander, \$20. Hong, Ext. 5881.

CHAIRS - Ethan Allen, 1 yr. old, Windsor-style, solid cherry, 4 side, orig. \$199 ea., now \$100 ea.; 2 arm, orig., \$249 ea. now \$150 ea. Eric, Ext. 5875.

COMPUTER TABLE - white, WorkBench, 40"x24" x31", roll-out shelf, monitor bridge, casters, \$75. Doug, 744-1760.

DINETTE - oak, trestle table, 30"x42", 4 chairs, good cond., \$75. Ray, 878-1947.

DISHWASHER - Westinghouse, Potscrubber H/D, under counter w/black reversible panels, full control, good cond., \$75. Frank, Ext. 2012 or Vita, 277-0464.

DRYER - avocado green, old, good cond., \$50. Sam, 399-5083.

ELECTRIC RANGE - Magic Chef, 30" w/range hood, \$100; microwayo W/hidocol aground now \$50. Tony

\$100; microwave, Whirlpool carousel, new, \$50. Tony, 696-3519.

FILE CABINET - 6-drawer, metal, locking, legal, you

pick up, \$35; IBM Selectric II, needs minor repair, \$25. Bill, 878-4356. HUTCH - large, Colonial, lighted, dark pine, \$100.

Bruce, Ext. 2188.

KITCHEN SET - table, 4 chairs, excel. cond., \$65. John, Ext. 4028.

LIVING ROOM - couch, love seat, chair, good cond., large, comfortable; walnut veneer end table. Sam,

Ext. 5376.

LIVING ROOM - sofa, chair, tables, entertainment center, black & glass contemporary, mint cond., moving, must sell. Ext. 2877.

MICROWAVE - Sharp 600W, \$20; heater plus fan, 1,500W, \$15; ironing board, \$5. Sonja, Ext. 1010.

REFRIGERATOR - cube, like new, \$65; kerosene heater, Corona, 22k Btu \$25. Bill, Ext. 2564.

REFRIGERATOR - G.E., 15 cu. ft., 2-dr., upright, almond, \$125; rototiller, Craftsman, 5-h.p., \$100; acs, Amana, 6500 Btu, \$65 ea. Frank, 567-6419.

WASHER - & gas dryer, Maytag, heavy-duty, stackable, great for small spaces, \$1,000 new, asking \$400. Henry, Ext. 5725 or 727-7227.

Tools, House & Garden

BURNER - Beckett retention head w/cad. cell & new transformer, \$80. 689-9234.

FENCING - cedar 6'x8', sections, new, \$12 ea. Ron Ext. 2525 or 286-035 eves. or wknds.

HEATER - kerosene, \$25; kitchen sink, s/s, \$10. Al, Ext. 5128.

PATIO SET - table, 90"x42". 6 chairs w/cushions,

matching umbrella, light fixture, forrest green, pvc, all covers, orig. \$2,000, best offer. John, 395-5922. PATIO chair cushions, 6 ea. \$15; bug zapper, never

used, \$24; chain link fence, black vinyl w/gate, 5', \$200. Joan, 751-7023.

POINSETTIA - florist-quality, various sizes, low prices. 727-6818 after 3:30 p.m.
POWER PLANER - & other hand tools. Lou, Ext. 3172.

SHOWER DOOR - \$75. Ext. 3974 or 744-6962 eves. STOVE - Chubby, coal-burning \$150. 473-1658 after 5. TABLE SAW - Craftsman, 10", older model, works well, many extras, \$250; toboggan, 4-person, new,

VANITY - bath, 35", Early American, maple w/louvered drs., 2 draws, rose/green, oval sink, brass/wood faucet, \$75. Frank, Ext. 2012 or Vita, 277-0464.

used 1 yr., \$60. John, Ext. 7313 or 395-5922.

Sports, Hobbies & Pets

BICYCLE - Dyno 20", BMX, hardly used, orig. \$200, \$90 or best offer. Ext. 5080.

BICYCLE - women's 26", 3-spd., Rollfast, excel.

cond., \$65. 281-6026.
BIKE - girl's, \$20; girl's & boy's roller skates or blades

\$5/pr; girl's ice skates, size 5, \$9. Joan, 751-7023. BIRD CAGE - w/matching rolling stand, suitable for large pets, \$25. Joe, Ext. 4567.

CAMERA - 1 yr. old, Nikon N6006 AF w/flash, 2 Sigma 28-70mm & 70-210mm zoom lenses w/hoods, Vivatar AF zoom flash extras, \$550 a'l. Frank, Ext. 2012.

CAT - mature female for adoption, neutered all shots, loving companion for single acult or couple. Ext. 2525 or 286-0353 eves. & wknds.

CLARINET - Alpine, student's model, \$175. Tom, 744-4535.

DRUM SET - 5-piece, black, prand-new, Zildjian hihat & cymbals, chrome snare, excel. cond., \$650. Rich, 758-9875.

ELECTRIC TRAIN- H.O. scale, 5 trains, 1 building, side-tracks, roads, lights, etc. on 4'x8' custom table, excel. cond., \$75. Tom, Ext. 4507 or 878-1060.

EXERCISE BIKE - Voit Ergometer, excel., \$60; pinball machine, junior size, \$20; bumper pool table/set, \$60; oak easel, \$10. 473-6546.

GOLF CLUBS- metal woods, irons 3-PW, First Flight.

new \$460, now \$220; Schwinn bikes, men's 10-spd., women's 5-spd., \$60 ea. Rau, Ext. 3864 or 286-4774. HORSE - bay gelding, 6 yrs., 15.3 hands, started English, \$900. Sherry, 727-6714.

PIANO - ebony spinet, recently tuned, asking \$450 neg. 744-6962.

RECORDS - 45 rpm & 78 rpm LPs from '40s to '70s; dolls, Tiny Tear, Betsy Wetsy, Revlon, some doll furniture. Joan, 751-7023.

SKIS - Kastle, 185cm, Sx Slalom, women's, MR2 bindings, used 4xs, \$175; ski rack, Barracrafter, holds 4 sets, \$35. Randi, Ext. 4043 or 929-4798.

Audio, Video & Computer

ea. or best offer. Ext. 2272 or 732-7634.

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

COMPACT DISC - Yamaha, CDX-410U, \$100; Code-A-Phone answering machine, \$20. Tom, 744-4535.

COMPUTER TABLE - 40"Lx24"W, w/12"W monitor/printer shelf, slide-out keyboard, white, supports & guides for continuous paper feeding, \$35. 765-1075. PRINTERS - Panasonic KX-P1091i; Star NX10, \$100/

PRINTER - Epson Stylus 800 Ink Jet, asking \$150. Rich, 736-1741.

PRINTER - dot-matrix, Star NX1000, hardly used, in box. \$100. Ext. 5080.

STEREO - 60-watt Awia, 3-CD changer, \$275. 758-3891

STEREO - Panasonic, AM/FM, record player, repairable dual cassettes, \$25, excel. speakers, \$25, \$45/both. Dina, 325-9231.

SPEAKERS - Infinity SM 122, 3-way, 200 watts, tweeter, mid-range controls, \$300; word processor/typewriter, Brother WP1400D, \$75. Bob, Ext. 2351.

TV - RCA, 25", cable-ready, remote, closed caption, v.g. cond., \$180; loud speakers, 18"x11"x9", pair, \$30; tuner & receiver, \$30. Sonja, Ext. 1010.

VIDEO - Learning ViewMaster Interactive Vision, 5 VCR tapes & VCR interface, Sesame Street characters, ages 3-7, \$50. Randi, Ext. 4043 or 929-4798.

VIDEO GAME - 8-bit, w/adapter, 2 controllers, zapper gun, 6 cartridges, instruction books, \$75. A. Romano, Ext. 4024

VIDEO GAME - deluxe joystick, super NAS controller, 18 games, like new, John, Ext. 7313 or 395-5922.

18 games, like new. John, Ext. 7313 or 395-5922. **Miscellaneous**

BABY'S WALKER - w/hanging mobile, excel. cond., \$15. Ext. 2876 or 345-5365.

CAR RACK - \$10; CB radio, \$30; women's shearling jacket, med., \$75; child's Elan skis, \$6. 929-5742. HIGH CHAIR - Fisher Price, wood, white, w/heart cut-

out pads, mint cond., \$25, 821-5266.

LUGGAGE - 3 pieces, Samsonite, \$25; girl's dressy dresses, velvet & lace, sizes 10-14, \$14/ea. Joan, 751-7023

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

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BABY'S CARRIER - newborn or baby under age 1. Ext. 3702.

DOG - female, named K-9, spayed, shots, 1½ yr. old, shepherd mix, housebroken, good w/kids, good home only. Fred, Ext. 5319.

KITTENS - 4 wks. old, gray/white, black/white, good home please. Joel, Ext. 5988 or 744-1628.

Wanted

CELLO - full-size, JH, Ext. 3889.

COMPUTER HARD DRIVE - for Mac IICX, internal or external. Adele, Ext. 2437.

FLUTE - used or new, moderately priced. Mindy, Ext. 2280.

ICE CREAM MAKER - preferably electric, reasonable. Suzanne, Ext. 7931.

HOUSE TO RENT - North Shore, Eastern LI, about \$800/mo., young, professional couple w/pet. Donna,

HOUSEMATE - share new house, private bed/bath, door to outside, use of whole house, dishwasher, cable, etc. 395-0584 eves.

MINI-BIKE - go-carts, motorcyles. 467-1343.

MOTORCYCLE LEATHERS - chaps, gloves, boots, saddlebags, etc., any age, size or cond. Kevin, Ext. 3082 or 281-8031.

PEOPLE TO JOIN - nondenominational Christian fellowship group, every Thurs, at AGS conf. room, Bldg. 911A, noon. Pete, Ext. 3297.

PICCOLO - for 12-yr. old, reasonable. Linda, Ext. 2466 or 981-2086.

SLIDE PROJECTOR - w/auto-focus. Ext. 4341 or 475-4005.

TENOR SAX - for student, 928-5684

Car Pools

QUEENS - LIE exit 24. Yan, Ext. 3653 or (718) 460-5912. EXIT 36 - fourth member needed. John, Ext. 5181.

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.

AUTO CUSTOMIZE - vinyl tops, headliners, convert. tops, sunroof installation, elec. sunroof repair, rugs, some mech. work, brakes. Rob. 395-4521.

BABY-SITTER-young grandma, impeccable reference, TLC, infant or children, a.m. or p.m. Jane, 874-4049.

BICYCLE REPAIRS - also many parts & reconditioned bikes for sale. 689-1618.

BRICKWORK - masonry, patios, walks, swimming pools, retaining walls, landscaping ties, Belgiumblock,

25 yrs. exp., Lab disc. Tony, 698-9274.

BUSINESS CARDS - raised lettering, many colors, BNL cards avail., flyers, letterheads & envelopes.

Mike, 878-3480.

CAKES - custom-designed, cookies, pies, and much more, for any occasion. Johanna, 924-7922.

CHILD CARE - by licensed, loving mother, impeccable references provided by BNL employees, close to Lab. Robin, 345-0298.

CHILD CARE - CPR/FA certified, 12 yrs. experience. Dina, 325-9231.

CHILD CARE - mature mother of 2 & 5 yr. olds, in Wading River home, very clean, warm environment.

Maria, 929-6925.

DJ - music of the 40s through the 90s, for any occasion, Lab discount. Bobby, 467-2790.

DRYWALL INSTALLATION - spackle, tape, renovations, kitchens, baths, doors, windows installed, interior/exterior painting, stain, etc. Scott, 325-0706. FLOWER ARRANGEMENTS - silk, baskets, wreaths,

brooms, ornaments, mistletoe, for Christmas or any occasion. Andrea, 399-4596.

GUTTERS CLEANED - gutter-protection system in-

stalled, keeps gutters clean and flowing, guaranteed, free estimates. Lab disc. Henry, 727-7227.

HOMEIMPROVEMENTS-extensions, dormers, decks, kitchens, baths, roofing, siding, painted finishes, lic.

& ins., refs. John, 286-1348.

HOUSEKEEPER - will clean your home to your standards, w/schedule convenient to yours, excel. refer-

ences. Jane, 874-4049.

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

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

LANDSCAPING - free est., grass cut, cleanups, lawn services, etc. Jesus, 286-5403.

LOCKSMITH - sales & service, 10% Lab discount, keys cut during lunch. Pete, 399-2813 after 5 p.m. PAINTING - int./ext., tape, spackle, wallpaper, power

refs. James, 399-4912.

PHOTO EDITING - perfect Christmas gift, photographs transfered to coffee mugs, plus an inscription.

wash, stain, natural wood finishes, Sheetrock, ins.,

Lenny, 878-6020.

PIANO TUNING - and repair, reasonable. 298-9560.

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

SKIN CARE & BEAUTY CONSULTANT - nail care, facials, men's line, body care, free first-time facials. Barbara Jean, 929-3235.

TOURS - personalized tours of Washington, DC, and places nearby (Baltimore, Annapolis, etc.) by knowledgeable, licensed tour guide. Tom, (202) 686-6214. VIDEOGRAPHER - capture those precious moments

on video, will tape weddings, parties, all occasions. Larry, 281-7240.

In Appreciation

Many thanks to the gentleman who found my green beaded necklace at Berkner Hall. It has great sent mental value, so I am very happy to have gotten it back.

— E. Gail de Planque

We thank all our friends for their support and friendship following the loss of our daughter Kim. — Rolf, Fran & Shawn Rathjens

I thank the RHIC Magnet Division "A" team for their friendship and support during my last three years at the Lab. I wish you all continued success.

- Rodney di Girolamo

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