

On First Visit to Brookhaven, DOE Secretary Watkins Dedicates CDC, Tours Lab, Holds Tech Transfer Talks

After stating his "strong belief in child development as a key element of the future competitiveness of this nation," the U.S. Secretary of Energy, Admiral James Watkins, cut through pink and blue ribbons to complete the formal dedication of BNL's Child Development Center (CDC) last Thursday, February 6.

Opened last September, Brookhaven's CDC was the first to be built in the nation by the U.S. Department of Energy (DOE).

"It is very well known that Admiral and Mrs. Watkins really believe in child development," explained BNL Director Nicholas Samios, in opening the ceremony. "And you'd be amazed at how quickly the paperwork gets through all levels of bureaucracy when it is known that the person on top really wants it done. So, Admiral, the success is partially yours, and we are really pleased that you were able to come to dedicate the CDC."

The dedication ceremony took place during Watkins' first visit to Brookhaven since he became Secretary of Energy in March 1989. He spent the afternoon on an admiral's inspection of BNL's site, its big machines, and major scientific, educational and technology transfer programs.

In addition to the CDC, stops on Watkins' itinerary included the new Science Education Center, an experiment at the Alternating Gradient Synchrotron, the tunnel and an experimental hall at the Relativistic Heavy Ion Collider (RHIC), BNL's magnet R&D facility for RHIC and the national Superconducting Super Collider, the Positron Emission Tomography scanner, the National Synchrotron Light Source, and the High Flux Beam Reactor.

After being welcomed aboard by Samios, AUI President Robert Hughes and others, Watkins' first stop was BNL's second new building, the Science Education Center (SEC).

At the SEC, he stopped in on sixth graders from the Milton L. Olive Middle School in Wyandanch, who were learning about magnetism through two separate lessons: First, the boys were being taught about magnetically levitating (Maglev) trains, while the girls were learning about magnetism through hands-on experiments; and then they switched.

After answering the boys' questions about Maglev and electric cars, Watkins told the girls, "Don't let anyone tell you that you can't become mathematicians, scientists and engineers, because you can be anything you want to be."



Secretary of Energy James Watkins gets some assistance in cutting the ribbon to complete the formal dedication of BNL's recently opened Child

Development Center (CDC), as CDC Director Deborah O'Neill (left) and CDC liaison Susan Foster, Personnel Division, look on.



DOE Secretary James Watkins speaks at the Child Development Center dedication before a crowd of BNLers.

Photos in this issue by Roger Stoutenburgh, except as noted.



BNL Director Nicholas Samios (left) and a young friend listen as Secretary Watkins speaks at the Child Development Center.



Energy Secretary James Watkins (center) is greeted upon his first visit to BNL by AUI President Robert Hughes (left) and BNL Director Nicholas Samios.

He later added, "I asked them, 'Who wants to be Secretary of Energy?' and they all put up their hands. I don't know why they did that except for the excitement in science and engineering that we can generate in children, starting right here."

At the dedication of the CDC, Watkins explained his philosophy about science education to a BNL audience of 250.

"Education in this country is the fundamental underpinning of a strong economy and a competitive society," said Watkins. "And being number one in math and science by the year 2000 is a key part of our mission in the U.S. Department of Energy."

To "keep up with the technological explosion in the world," the Energy Secretary urged that science "education start in the preschool" and encompass not only "the final 1 or 2 percent of our society going into specialized scientific roles," but also "the other 98 percent of whom at least 90 percent can be productive in our society and really help this nation return to the competitive standing that will assure us the number-one position in the world in the next century."

Concluded Watkins, "Once we give education its rightful role — which is number one — then we can take the wonderful technologies that we have at Brookhaven and the other national and federal laboratories to the private sector and say, 'Come on in, let's get a public-private consortium together. You tell us what you want and we'll solve your problems. Then let's take it into applications and commercialize it so we can say proudly built in the U.S.A.'"

— Marsha Belford

[See inside for "Highlights of DOE Secretary Watkins' Tour of BNL."]

Highlights of DOE Secretary Watkins' Tour of BNL



In the auditorium of the Science Education Center, Secretary of Energy James Watkins answers questions about magnetically levitating (Maglev) trains and electric cars that were posed by sixth grade boys from a Wyandanch middle school. The boys had just witnessed a demonstration of Maglev, a concept invented by two BNL scientists.

At the SEC

BNL's "Science Education Center is terrific," commented Watkins after his stop there. "It provides the space to link Brookhaven with the local middle schools and high schools, to bring in students and teachers, to get all the tutoring and mentoring going, to get the excitement in science and technology going among young people — who will then be able to answer the questions for themselves and whom we can then mobilize to help us solve our country's problems."



In the Science Education Center's classroom, Watkins learns about the marvels of magnets during hands-on experiments being conducted by sixth grade girls from Wyandanch.



Donald Metz (left), Manager of BNL's Office of Educational Programs, welcomes the DOE Secretary (center) and BNL Director Nicholas Samios to the solarium entrance hall to the Lab's new Science Education Center.



Sharon Baxter (left), Department of Applied Science, and her son Addison meet Secretary Watkins and his Special Assistant Peggy DuFour.

At the AGS

Experiment 787 at BNL's Alternating Gradient Synchrotron (AGS) — an accelerator that has so far produced three Nobel Prizes in its over-30-year existence — was Energy Secretary James Watkins' first look at the Lab's scientific program. While inspecting E787's solenoid-magnet detector and electronics, Watkins was informed of high-energy physicists' search at the AGS for rare kaon decays in the 100-trillion-electron-volt virtual mass range.

As the world's most intense high-energy proton accelerator and the most intense source of kaons, the AGS is an ideal alternative to very high-energy searches for new phenomena and the accelerator of choice for searches for unusual processes such as rare kaon decays that may contradict or expand the present standard model of physics.



Central to experiment 787's electronics is the transient digitizer board that Physicist Maged Atiya shows to Secretary Watkins. Using commercial analog-to-digital chips, this 500-megahertz, Fastbus transient digitizer was designed and produced by BNL.



Energy Secretary James Watkins (right) shows and tells about the gyroscope plaque that he received from the Lab at the dedication of the Child Development Center.

At the CDC

The philosophy of BNL's Child Development Center was summed up by Energy Secretary James Watkins, when he formally dedicated BNL's Child Development Center (CDC), Bldg. 373, in the apartment area.

"Readying every child for school to learn is the difference between child development and day care where children just sit there idly. Child development centers prepare children to be successful in school starting in kindergarten," he said.



Backed by the huge detector of experiment 787 at the Alternating Gradient Synchrotron, Senior Physicist Laurence Littenberg (right) describes the rare-kaon decay study undertaken using this detector to Watkins and company.

Admiral James Watkins thoroughly enjoys the pictures of boats, ships and submarines that were drawn for him by this group of four- and five-year-olds who are enrolled at BNL's Child Development Center, which is directed by Deborah O'Neill (right).



At the PET Facility

Cocaine addiction, alcoholism, Alzheimer's disease, Parkinson's disease, schizophrenia — these conditions that affect the human brain have all been investigated using a BNL-developed radiotracer at the Lab's Positron Emission Tomography facility.

In analyzing PET's colored brain scans to understand how substance abuse and disease change brain metabolism and patients' behavior, the hope has been to develop antidotes to treat these conditions.

As Watkins suggested during his PET stop, brain scans of crack addicts and alcoholics may also have preventive use: If such colorful graphics are shown to school children through educational cartoons, perhaps these images of permanent brain damage will discourage their abuse of such damaging substances.

At the HFBR

The final scientific program stop on Secretary Watkins' tour was the Lab's High Flux Beam Reactor (HFBR), which he himself authorized to be restarted at 30 megawatts in May 1991 following a two-year safety review shutdown.

Because of its innovative design for neutron scattering, the HFBR's performance since it was commissioned in 1965 has been matched in terms of neutron flux by only one other research reactor in the world, and the HFBR has the world's only liquid-hydrogen cold-neutron moderator which boosts the flux of very low energy neutrons.

As Watkins heard, upgrading the HFBR's instruments would allow the best use of the neutrons already being produced to probe materials — including high-temperature superconductors — at the nuclear, atomic and molecular levels.

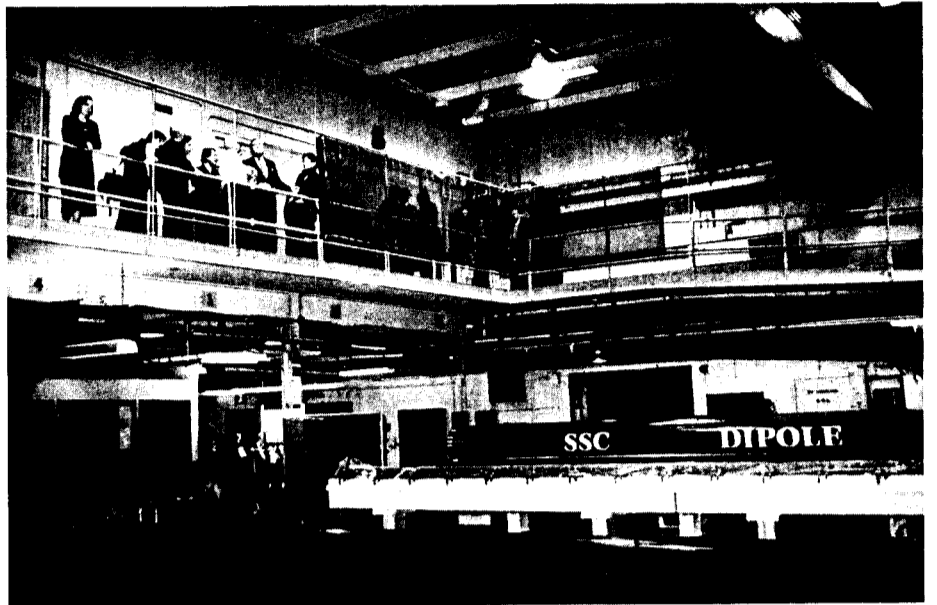


In the RHIC tunnel: (from left) RHIC Project Head Satoshi Ozaki; Energy Secretary James Watkins; David Goldman, Acting Manager of DOE's Chicago Field Office; James Yeck, RHIC Project Manager in DOE's Brookhaven Area Office; and BNL Director Nicholas Samios.

At RHIC

Secretary Watkins visited a futuristic experimental hall, where one of two large detectors will reside for BNL's Relativistic Heavy Ion Collider (RHIC). There, at an intersection of two colliding beams of ultrarelativistic heavy ions, a hot, dense plasma of quarks and gluons not seen since the Big Bang created the universe billions of years ago may be observed.

Physicists hope to see not only freed quarks and gluons within a primordial plasma, but also the permutations these nuclear constituents form as they recombine into particles — including combinations never observed before. These observations would advance understanding of both the nuclei and the early universe. Such nuclear physics discoveries await the scheduled 1997 commissioning of RHIC.



The entourage accompanying the Energy Secretary pauses on the balcony overlooking BNL's magnet factory.



RHIC Project Head Satoshi Ozaki discusses the fine points of BNL's Relativistic Heavy Ion Collider (RHIC) with AUI President Robert Hughes (center) and DOE Secretary James Watkins.

At the Magnet R&D Factory

The national Superconducting Super Collider (SSC) and BNL's Relativistic Heavy Ion Collider (RHIC) will be complementary accelerators with two things in common: Brookhaven-designed superconducting dipole magnets that will bend the particle beams, and Brookhaven magnet-making technology that is being transferred to industry so the private sector can build the magnets.

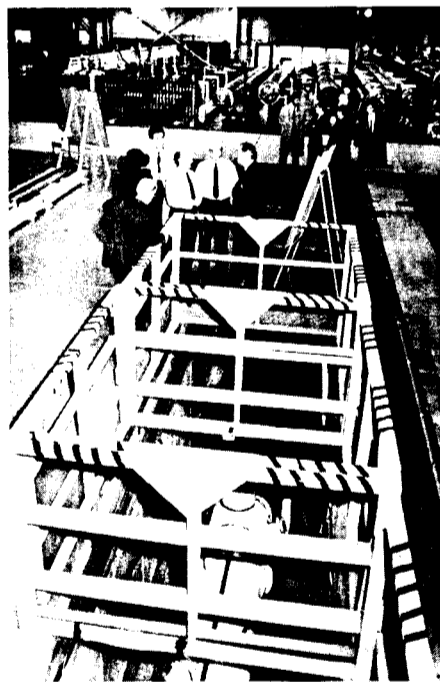
In addition to independent and collaborative design work on the RHIC and SSC dipole magnets, respectively, the Lab has designed quadrupole, or focusing, magnets necessary for RHIC. Assembling and testing of full-size prototypes of all Lab-designed magnets are now ongoing.

As reported to Secretary Watkins during his walk through the Magnet R&D Facility in Bldg. 902, to date, two of the new, 50-millimeter-aperture SSC dipoles have been successfully tested; a third, built by Westinghouse, was about to undergo testing.



A plaque bearing a cross section of a RHIC dipole and a cross-section paperweight of an SSC dipole were presented to Secretary Watkins (right) as mementos of his visit to BNL's magnet factory by BNL Associate Director E. Parke Rohrer (left) and Lab Director Nicholas Samios.

Photos immediately above and below by Peter Horton



Magnet Division Head Erich Willen (center) and BNL Associate Director E. Parke Rohrer (second from right) explain to the DOE Secretary how a full cell of RHIC magnets, the smallest grouping of magnets that can bend and focus a particle beam, is being readied for testing. In Bldg. 902, Watkins also watched the "cold mass" of a RHIC magnet being inserted into its cryostat.



At beam line X16A of the National Synchrotron Light Source (NSLS): (from left) BNL Deputy Director Martin Blume, Energy Secretary James Watkins, NSLS Chairman Denis McWhan, and BNL Director Nicholas Samios.

At the NSLS

"Made in U.S.A." is the goal of the national initiative to help American industry regain the international supercomputer chip market. Secretary Watkins saw for himself how this is being accomplished in part at BNL's National Synchrotron Light Source (NSLS), through the x-ray lithography research being conducted by private industry at several NSLS beam lines.

In addition, NSLS staff members are directly involved in developing a compact synchrotron as a prototype x-ray lithography source for the future mass production of chips, and in transferring this technology to America's private sector.



NSLS Associate Chairman William Thomlinson (center) and his associate Nicholas Gmur (back) display almost clinical quality images obtained at the NSLS synchrotron medical research facility using transvenous angiography, a new approach to mapping the course of coronary artery disease and evaluating the effectiveness of nonsurgical treatment of heart-attack patients.

In Conclusion

Before completing his day at Brookhaven in private discussions with Laboratory Director Nicholas Samios, Watkins presided over a meeting to which he had invited technology transfer representatives from BNL and other Department of Energy laboratories. Then, he revealed DOE's role in a new national technology transfer initiative and the parts DOE labs will play in a series of technology transfer conferences, to be held around the country and to which U.S. corporations will be invited to learn about available, federally funded technology.

BROOKHAVEN BULLETIN

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The Battle Against AIDS

The U.S. Department of Energy's (DOE) traveling exhibit "DOE and the Battle Against AIDS" may be viewed in Berkner Hall from Tuesday, February 18 through Friday, March 6.

Created last November for International AIDS Awareness Day, the exhibit highlights DOE's involvement in the medical battle against Acquired Immunodeficiency Syndrome (AIDS). Included on the panels is information on AIDS-related research at Argonne, Brookhaven, Los Alamos and Lawrence Livermore National Laboratories.

At Brookhaven, researchers are investigating the cause of severe, progressive malnutrition in AIDS patients and the effects of nutritional therapy on the deadly disease's progression. Performed within the Lab's Medical Department, the research relies upon the department's in vivo neutron-activation facility, which includes the 32-detector whole-body counter.

HMO Reps on Site

The services of four Health Maintenance Organizations (HMO) are now being offered to active BNL employees as additional health-care options. Representatives of these HMOs will be at Berkner Hall the next two Wednesdays, February 19 and 26, between 11 a.m. and 1:30 p.m., to answer employees' questions about their plans.

Employees are reminded that the deadline for HMO enrollment is February 28, with coverage effective March 1. To enroll in one of the optional HMO plans, contact Personnel Services, Bldg. 185, Ext. 2877, for the necessary forms.

Equipment Demo

Tektronix, Inc., a manufacturer of test and measurement equipment, X-terminals and color printers, will have the following products on display in Berkner Hall, on Tuesday, February 18, from 9 a.m. to 3 p.m.: oscilloscopes and digitizers, logic analyzers, spectrum analyzers, multi-channel data acquisition/analysis instruments, portable cable testers, color printers, X-terminals, and fiber optics and metallic cable testers.

Tektronix support personnel will be on hand to answer questions and demonstrate equipment.

Technico, Inc., will hold a seminar and demonstration of LYNX-OS, a real-time UNIX development system, on Wednesday, February 19, at 9:30 a.m., in Berkner Hall, Room B. All are welcome, but please contact Sy Cohen of Technico beforehand if possible, at 582-6168. If there is enough interest, then multiple sessions will be held.

Bargains at BERA Film Service

The Employee Photo Service at the BERA Sales Office offers film developing at reduced prices, and now, the following specials:

- Through April 30, for every original roll of color print film developed, you will receive a free 5"x7" photo.
- During March, you will receive a free 8"x10" with each roll, as well as the 5"x7".
- Until February 25, all reprints are 19¢ each.

The specials will continue after Easter, with a free set of extra prints with each roll developed.

For more information, call Carolann Zebrowski, Ext. 3347.

Atlantic City Trip

Seats are still available for the next BERA-sponsored one-day trip to Atlantic City — to Resorts International Hotel and Casino on the Boardwalk, on Saturday, February 29. The cost is \$20, but the hotel/casino will give a \$10 coin return and a \$5 deferred-return bus voucher.

Tickets are on sale now at the BERA Sales Office. For more information, call Carolann Zebrowski, Ext. 3347, Rosalie Piccione, Ext. 3160, or M. Kay Dellimore, Ext. 2873.

Lecture Canceled

The Brookhaven Lecture scheduled for next Wednesday, February 17, has been canceled. The lecture schedule will resume on March 18.

Microcomputer Club

The BNL Microcomputer Club will host a Computer Open House Workshop on Thursday, February 20, in the lobby of Berkner Hall, from 11:30 a.m. to 1:30 p.m. The workshop will include demonstrations of hardware such as PCs, MACs, Amigas, backup devices and scanners; and software, including WordPerfect for Windows.

There will be a "Doctor's-In" table with many experts to discuss software and hardware upgrades and/or problems. All are welcome to come by. For further details, contact Irving Montanez, Ext. 2540.

Senior Citizen Discount Fare

Many airlines offer discounts to people aged 62 and older. When making reservations, please advise the BNL Travel Office if you are eligible for this discount.

Volleyball

Standings as of February 6

Open League		League I	
Magnum	29-4	Upfagrabs	34-11
G-Team	20-13	Network News	29-13
Phoenix	17-16	Rude Dogs	30-15
Me and the Boys	16-17	Dinkers	25-20
Penetrating Volleys	9-24	Six Pack Attack	22-23
Leftovers	8-25	Setups	12-33
		Bumps & Sets	4-41

League II		League III	
Monday Night Live	28-2	High Volley'em	25-11
Net Wits	20-10	Renegades	24-12
Just Ups	18-12	Nutcrackers	23-13
Night Court	16-14	Over the Top	23-13
Fossils	16-14	Interns	19-17
Nuts & Bolts	14-13	Good Timers	18-18
Volley of the Dolls	8-19	Sourcerers	13-20
Upton Ups	8-22	Silver Bullets	6-27
Muffits	4-26	Undertakers	5-25

Cafeteria Menu

Luncheons

Monday, February 17 - Presidents' Day	
Snack bar service — 9 a.m. to 2 p.m.	
Tuesday, February 18	
Soup: Cream of broccoli	.80/1.10
Entree: Boneless chicken breast w/veg.	3.20
Entree: Chef's choice	3.20
Fitness: Baked fish gardinier w/1 veg.	3.20
Carvery: Hot roast beef sandwich	2.95
Grill: 1/4 lb. Swiss burger & sauteed mushrooms on onion roll w/fries	2.95
Wednesday, February 19	
Soup: Vegetable beef	.80/1.10
Entree: Stuffed manicotti w/1 veg.	3.20
Entree: Chef's choice	3.20
Fitness: Stir-fried beef over rice	3.20
Carvery: Baked Virginia ham sandwich	2.95
Grill: Fried fish & cheese, Creole sauce	2.95
Thursday, February 20	
Soup: Navy bean	.80/1.10
Entree: Chicken cordon bleu	3.45
Entree: Ham & potato au gratin	3.20
Fitness: Seafood linguini	3.20
Carvery: Hot corned beef sandwich	2.95
Grill: French dip on French roll	2.85
Friday, February 21	
Soup: New England clam chowder	.80/1.10
Entree: Cheese or beef & cheese enchiladas w/Spanish rice	3.20
Entree: Pork Creole w/1 veg.	3.20
Fitness: Baked fish w/1 veg.	3.45
Carvery: Hot turkey sandwich	2.95
Grill: Boneless chicken breast Cajun-style on a Kaiser roll	2.95

Pick a Teacher

The Office of Educational Programs (OEP) now has applications from teachers in Suffolk and Nassau County schools who wish to take part in BNL's Teacher Research Associate (TRAC) Program this summer.

TRAC enables secondary science, mathematics and technology teachers to participate in the Lab's research programs, under the direction of staff advisors. There is no cost to an advisor's department.

The 1992 TRAC program will run from June 29 through August 24. Teachers' applications may be reviewed in the library of the Science Education Center, Bldg. 438, from Tuesday, February 18, through Friday, February 29. All staff requests for TRAC teachers should be forwarded to the appropriate department coordinators by Monday, March 2. For more information, call Karl Swyler, OEP, Ext. 7171.

Note to Diners

The Laboratory will be closed on Monday, February 17, for Presidents' Day, so the following schedule will be in effect:

- **Center Club** — closed Sunday, February 16; open Monday evening, February 17, at 5 p.m.
- **Cafeteria** — open from 9 a.m. to 2 p.m. on Saturday, Sunday and Monday, February 15, 16 and 17.
- **Vended food service, Bldg. 912** — will be in operation continuously.

Basketball

Week of February 1

X-Men 71		Deep Six 64	
J. Hobson	24	M. Williams	19
G. Mack	14	P. Brown	16
E. Meier	12	J. Sims	11
R. Schuhmann	7	R. Hart	8
J. Garrison	6	C. Saxen	4
R. Deem	4	M. O'Connor	4
G. Smith	4	S. Oleneski	2

3-point shots: P. Brown, J. Hobson (4), R. Schuhmann, M. Williams (4)

Runaways 75		Scram 60	
M. Fulkerson	19	E. Gregory	20
P. Ratzke	16	T. Powers	19
J. Desmond	13	J. Nash	9
G. Shepherd	12	J. Barkwill	6
J. Gaeta	9	J. Duggan	6
J. Belz	6		

3-point shots: J. Desmond, M. Fulkerson (3), J. Gaeta, E. Gregory (2), J. Nash, T. Powers (3)

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

MK 8050. TRAINING POSITIONS - Require a bachelor's degree or equivalent experience, 3-5 years' experience in the development of technical skills training programs in an R&D or industrial environment, and strong oral and written communication skills. Computer knowledge is highly desirable. Will perform job-training analyses, and design, develop, conduct and evaluate training courses. Will be responsible for providing expert assistance for developing departmental training programs. (reposting) Personnel Division.

MK 0442. PHYSICS ASSOCIATE POSITION (term appointment) - Requires a BS in physics (MS preferred) extensive experience with accelerator and high-voltage systems, and experience in the techniques for interfacing of testing equipment with computers. Knowledge of electrical engineering practices and techniques is desirable. Will work with the development of high-power rf systems, and will design and build equipment pertaining to the testing and control of rf power. Physics Department.

Last Chance To Enter R&D 100

If you think that your technological achievement could win a prestigious R&D 100 award, don't miss your chance. The deadline for completed entries is Wednesday, February 26, so get an application now from Dorry Tooker, Office of Technology Transfer, Bldg. 902C, Ext. 2078.

Sponsored by *Research and Development Magazine*, this contest recognizes the top 100 technological achievements that were completed and delivered, or became available for contract or licensing in 1991. These technological products are broadly defined to include any product, material, process, software, program, or system of scientific or technical origin or use.

Bowling

White League

Ken Riker had a 226, Paul Callegari 213, Joe Mayeski 209 and converted the 4/7/9 split, Georgia Irving converted the 3/7.

Purple League

Jim Goode had a 216/204, Andy Warkentien 205, Pat Manzella 193, Maryann Reynolds 190, Diane Lombardi 182.

Red/Green League

A. Sauerwald had a 256/604 scratch series, K. Asselta 235, C. Scarlett 227, H. Arnesen 216/201/600 scratch, M. Palumbo 216, A. Pinelli 215, S. DiMaia 214/204, R. Raynis 214, J. Muller 210/207, S. Thompson 210/204, H. Dawson 210, R. Wiseman 209/208, A. Warkentien 209, C. Bohnenblusch 201, R. Larson 201.

Scotch Doubles

The Scotch Doubles Tournament will be held on Sunday, March 1, at 1:30 p.m., at the Port Jeff Bowl. The cost is \$24 per couple. The tournament is open to BNL employees and immediate family members.

Applications are available at the BERA Sales Office, and deadline for applications is Friday, February 28. If you need a partner or have questions, contact Maryann Reynolds, Ext. 5241, or Ed Sperry IV, Ext. 2697.

MK 0446. PHYSICS ASSOCIATE POSITION (term appointment) - Requires MS in physics (Ph.D. desirable), several years' experience in working with UNIX systems, PAW analysis code, ISAJET and Pythia code, and knowledge of LUND Monte Carlo method. Responsibilities will include the development of software simulation code for SSC GEM detector and for code development, maintenance, physics interface and analysis. Physics Department.

NS 6125. OFFICE SERVICES POSITION (term until 9/30/92) - Requires AAS degree or equivalent with good secretarial skills and experience using PC-based application packages. Responsibilities will include extracting data and generating reports from a commercial database program; managing Department maintenance and safety training records; and distributing document updates, revisions and new procedures. (reposting) Alternating Gradient Synchrotron Department.

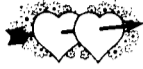
NS 8123. ENGINEERING POSITION - Requires BS in science or engineering and several years' progressive experience managing industrial safety programs. Experience in safety engineering, systems safety, design reviews and OSHA requirements necessary; management experience and certification as a safety professional desirable. Must be able to obtain and maintain a security clearance. Safety & Environmental Protection Division.

LF 0444. TECHNICAL POSITION - Requires AAS or equivalent in mechanical technology, and previous machine-tool experience. Will be involved in the design and fabrication of complex mechanical and electromechanical devices from initial conception to final fabrication, installation, testing, modification, and alignment. Additional responsibilities will include assembly, alignment, repair and modification of electromechanical, vacuum, water and dc high-voltage systems. Familiarity with TTL circuits and computers is desirable. Physics Department.

LF 0138. ENGINEERING POSITION - Requires a bachelor's degree in civil or structural engineering with a minimum ten years' structural design experience or equivalent. Responsibilities include the design of structural steel and reinforced concrete structures, and preparation of related specifications for bidding purposes. Knowledge of AISC, ACI, Life Safety and model Building Codes as well as drafting skills essential. A PE license, as well as AutoCAD experience, is desirable. (reposting) Plant Engineering Division.

Happy Valentine's Day! See Supplement for Ads and Love Notes.

TO MINIC - Happy Valentine's Day. Less than 2 months to go. I love you. Min.
 LOVE - To my little pumpkins and muffin.
 BUDDY, LITTLE FRANKIE, AND ? - You are the loves of my life. Happy Valentine's Day. Love, Me.
 SHANE - You are the best part of every day. I love you. Happy Valentine's Day!! xoxox, Lisa.
 DEAR 2397 - Forget the quarter - I'll "always and forever" care!! I love being your wife.
 PRINCESS - Please don't tell me to go away, I love you so much in every way! Happy 3rd Valentine's Day.
 I - Know I'm bad and that is not funny. But you will always be my sweet honey! Happy Valentine's Day!



ED - Just a note to say I love you! xxxooo, Upton.
 KITSMEOW - No red Jeep this year, radio instead, but all my love forever I do give to you. DJW.
 MARTYGUSHKA - Thanks for another great year and especially for the little Gushka. Love you, the Red Fox.
 BRIDGET - You are the love and the light of my life. Don't ever change. Love always, Dad.
 NONA - Thanks for all the support during my crisis! Love you forever, Bob.
 TO OUR VALENTINE - Have a wonderful time in Tucson but don't forget to come home. Love, Brian, Eric, Jamie and Ken.
 DEAR C.I. - Happy 2nd Valentine's Day. It just gets better every day with you. Love, A.J.
 DEAR BUDDY GIRL - One year of married bliss and many more to come. Love ya.
 TO MY BUDDY BOY - Happy Valentine's Day. I love you. Love, Buddy Girl.
 DEAR MS. HYPED RED SENTRA - Saw you at the theatre Jan. 18 and I'm still thinking of you. Mr. Supreme.
 VALIANT KNIGHT beware!
 Your lady weaves tapestries
 Designed to ensnare.



PORCUPINE - Can't get enough of those dinner rolls, biscuits and muffins. Keep them coming! Love always, Me.
 HAPPY VALENTINE'S DAY TO MY ONE & ONLY - Let's meet in S.D. Love always.
 TO MY SWEETHEART - You are the love of my life. Let's keep up the love forever. You are the greatest. Love, Steve.
 JOYCE - Thanks for 30 years of great love. Rich.
 DEAREST DIANA - You filled my life with love for 35 years, making it meaningful and worthwhile. Love, Me.
 VICKY - Shall we try for another 30 years? Love, Sy.
 MARY - Public notice: "I love you." Richard.
 DONNA MARIE - With all my love to my wonderful Valentine. I would do it all over again. Chachie.
 YOU - Are my sunshine, my only sunshine, you make me happy by just the thought of you. 143.
 SPECIAL MOMENTS - that we share, for no other do I care, together we find ecstasy, lovers always you and me.
 SWEETIE - You make life F-U-N. You're my best friend. I "heart" you. With love, Koty's Mother.
 BUN BUN - Can't wait to be your wife, we'll have a wonderful life. Soon we'll be one, having lots of fun. I love you more than anything. Honey.
 DEAR P.R. - Well, we almost made it. See you 4/5/92. Love you. Sugar.
 POSTRE - It's been 11 wonderful months, let's keep it going! Love ya, Sugarface.

Classified Ads (cont'd)

Wanted

AUDIO TAPE - of Singapore National Anthem or information. Ext. 5629.
 BOAT - 16-19', with o/b, working condition, reasonable. 563-6680.
 CAMCORDER - any model, \$250 or less, used. John, Ext. 2138 or 928-8389.
 DINGHY - alum. or fiberglass that floats, 7'-10' long, cheap. John, Ext. 7671.
 HESS TRUCKS - by private collector, any year, cash waiting. Jim, Ext. 4026.
 HOUSEMATE - m/f, nonsmoker, lg. bdrm., priv. ent., l/r, d/r, eik, den, igp, cac, 20 min. to Lab, \$500/mo. + 1/2 util. Phil, Ext. 7749.
 HOUSEMATE - 12'x14' room in large house, priv. bath, w/d, dw, deck, nice area, nice housemates, single, nonsmoker, \$500/all. 928-8379.
 JUDO PARTNERS - black belt Judo instructor seeks Judo players to work out with at BNL. Let's form a club. Moti, Ext. 4658 or 462-0731.
 LUGGAGE - 1 lg. suitcase for travel, in good cond. Khan, Ext. 3120.
 MICROPHONE - w/stand and amp. W. Case, Ext. 7527.
 NORDIC TRACK - or X-country/downhill simulator, good cond. 751-5593.
 SKIERS - for Bellayre, 2/19, \$42; Windham, 3/4, \$40; send payment to Augie Hoffman, Bldg. 510C, Ext. 3884.
 WIG - blonde, preferably long. Ruth, Ext. 4173.

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



FUZZY - I love you so much. Thank you for making me so very happy. Love, Jeff.
 RHODA - Closer than ever, with you forever. Love, Joel.
 TERR-BEAR - My blue topaz eyes are sparkling brightly for our eighth Valentine's Day! Love, Squeeks the Bunny Rabbit.
 TO OUR SWEET BEA - We love you with both our hearts. Will you be our Valentine? Miss Silverbunns and Elmo.
 MOMMIES - You're mine, love you. Little Pat.
 LOUISE - You're the best wife and friend. I love you. Patrick.
 DEBBIE - This past year you gave me more than any man could ask for. I'll love you always. Mike.

HAPPY V-DAY GUYS - And thanks for being Hot Stuff 1/30/92. Love, Gutter Gal.
 TURQUOISE - Just wanted to wish you and yours a very Happy V-Day from me. Love, Purdie.
 KING KONG BUDDY - Gotcha! Jane.
 E.S.S. - I'm so happy to have found with you much more than I ever hoped love could be. Love, Scruffy.
 OCTAVIO - I love you, you love me, together we make a happy family. Love, Mother to Be.
 MATTHEW - Soon we will be one. Me your wife, you my husband, but always best friends and lovers. Forever yours.
 M5901 - You called me once but I had a distant beau. I changed my mind: give me another line.

Here Comes the Bride

Sometime before 1962, this young bride was married. Later, two of her wedding photos were in the possession of someone who read the Research Library's volume of *The Dreams of Science: Science and Utopias*, by René Dubos, which was published in 1961. The book was returned to the library's General Science collection - with the two photos inside its pages. Recently, Linda Thompson, a senior library assistant in the Technical Information Division, found the pictures and turned them over to the Bulletin with the hope that one of our readers might recognize this bride and reunite her pictures with their owner. If you can be of any help, please call Ext. 2345.



TO MY DEAREST JACKIE - I love you for so many reasons, great and small. But most of all, I love you 'cause you're you. Bruce.
 DEVONNE - You are the sunshine in my life! Happy Valentine's Day, with many more to come! Love, Troy.
 CHRIS - I would rather be struggling and happy, than to be rich without you. p.s. You're doing a great job at home. Luv, Bren.
 DEAR HONEY-BUNNY & DADDY'S LITTLE GIRL - You brighten up each day of my life. I love you both very much! Love, Neilly.
 PI - Won't you be my Valentine? I'll be yours if you'll be mine! I love you very much.
 LITTLE RICHARD - If I had a single flower for each time I think of you, I could walk in my garden forever. Smile.
 DONNA - To a very special Shirley Temple. Be my Valentine always! Love always, Bob.
 LAURA ANN - After 13 years, you still "do it" for me! Happy Valentine's Day. Love always, D.J.
 JEANNE - Your caring and compassion as a mother, friend and wife are truly remarkable. You have my love forever. Tim.
 E. - May all of your hopes turn to wishes and may all of your wishes come true. J.
 BOO BOO KITTY - Please don't stray, I need you now more than ever, my love for you will last forever. Love, Me.
 DEAR MARYANN - Happy Valentine to you for being such a good friend, mother and wife throughout the year. Love, Harold.
 KAREN - Each day together our love grows. Happy Valentine's Day to you and Nellie. Love, Ray.
 PAT - You generate so much of an enhancement in the quality of my life. I love that and you. Bill.
 FROM THE FIRST DAY - We met my heart began to melt. I yearned for a way to express how I felt. You opened your heart to mine all alone. With love I'll proclaim "I married Joan." LSF.
 TO MY GAL ELLIE - All my love - all my life. Your guy, Don.

SCRUFFY - Sunshine, honey, mountains and dew, I live for loving you. Love always, Me.
 HAPPY VALENTINE'S DAY - I love you Bootie Boy. Love, Boodie Green.
 JOHN JOHN - I am so proud of you. You mean more to me every day. Love ya, Patsy.
 TO YOU - I can't predict the future, or how our lives will blend. I only know for sure, that you're my best friend. From Me.
 HEY YOU - Ditto, ditto, ditto. DMM.
 TO DON WON - Let's put the past in the past and be friends. (Té amo) Your God-daughter's Mother.
 STEPHEN - Looking forward to spending the rest of my life with you. Only 147 days left! Luv ya, Christine.
 DEAR AMY - Happy Birthday to you with Valentine's Day too. Chio lee thin tei ken kon mann su zu e.
 PIZZA MAN - I may not always show it, but I love you more than I ever have. L.S.
 TO MY LOVELY VALENTINE, DONNA-MARIE - Love, Steven.
 DEAR HONEY - Hard times! Remember I'll always like you, miss you, need you, want you, and love you, Me.
 FATHERING FATHER - Thanks for all your help. I love you very much. Happy Valentine's Day. Dwaugtering-Daughter.
 TO THE PEOPLE IN THE UPTON POST OFFICE - Thanks for holding the Express Mail truck for my late package. A.D.
 PETER - I've got that request down to two seconds in the dark. Have we got a deal? B.
 DEAR SAM - The best 26 years of my life I have spent with you. Te amo ahora y siempre. Patria.
 DEAR ANGEL - It's great being close to you, please be my Valentine. Love always, RPJ.
 DEAR P. - Thanks for being one of the sweetest Aquarius I know. I'll be your Valentine if you'll be mine. Love, B.J.

LILLY - The sweetest Happy Valentine's Day! Solo por ti. For it's only the beginning! The Beast.
 TO MY WIFE LINDA - you are my special Valentine. I love you very much. Love always, Joe.
 TO MY SWEETHEART SARA - Happy Valentine's Day. From Bill.
 DEAR KAREN, KHALED & SALAH - Hope this Valentine brings you love, happiness and prosperity. Daddy.
 TO MY VALENTINE "J" - Love like yours keeps my heart all aglow. Soon to be Mrs. J.
 MY DEAREST LISA - I love now as much as ever. Yours forever. H.B.
 TERRY - My husband, lover and friend. Thank you for your love, support, concern and the world's two best children. Your Workaholic.
 L.M.F. - When they wanna see just how true love should be, they'll look at us. Thanks for sharing it with me. All my loving forever. J.A.S.



HUN - I've loved you for all my known life. You made me know life and I'm yours eternally. Atilla.
 ATILLA - I still believe in the Knight. Love, Hun xoxox.
 B.B. - We still love you and always will no matter what happens! Love, Me and Scooter.
 MO, LARRY & CURLEY A.K.A. HANZ, FRANZ & LEGS - Miss you guys a whole lot! Love, Ginger.
 FISHERMAN - I'm glad you caught 3 mermaids on July 3rd and only released 2. Love, Girlfriend and Monday.
 LIN - I wish you could be my Valentine all the time. C.
 HONEY* - To the one who keeps my world happy & joyful. Happy Valentine's Day. Love, Sweetness.
 MY BEAUTIFUL CC - I never knew that I could love someone so much. I miss you more than anything in this world. Your Boobaleh.
 MOM - We'd leave "Paradise" 2B with U. There's no place like home. Thanks 4 everything. Love, 2 Lost Puppies.
 TO MY SWEETIE - I.L.U. From your Babe.
 DEAR MURIEL - Ever and always. Love, Andy.
 TREE - I love you very much. I can't wait until June! Love, John.
 BILL - Come out of the woods, you wild thing! Twice a month is not enough. Hugs, your Babes, P & B.



CCD MEN - I miss you all. Thanks for keeping in touch. Happy Valentine's Day. Love, B.
 MY DEAREST BOBBY - All my love for this Valentine's Day. Your devoted husband, Steve.
 BEP - There may be snow on the roof and rogain on order, but you're still our aphrodisiac. Trixie, Pinky, Babette.
 TO MY BEST FRIEND - Happy Valentine's Day, I'm so glad you came back into my life.
 MARIA - Happy Valentine's Day. Get well soon and hurry back. We all miss you. Your Friends in Security.
 TO GRAHAM - You're the sexiest grandma I know! Can't wait for our Valentine's Day date! Love always, Crackers.
 TO MY FAVORITE HUSBAND, LOVER, BEST FRIEND - You're always there for me after all these years. I love you, Honey.
 TO MY MOOKIE - Happy Valentine's Day to the best husband in the world! I love you more than words can say! Love always, Jeanne.
 TO MY ONE & ONLY HUNNY BUNNY - You certainly keep me hoppin'! All my love.



SANDRA - Mi luz, mi amor, mi negra, mi alma, mi nena, mi vida, mi mia, mi amable y mi esposa. Jose.
 TO MY LOVE - Happy Valentine's Day. The family is growing. Love, Tony, PU, PE, MIS, ME, MO.
 ALOIS - Love ya. From your Diamond.
 VETTE MAN - Porsches are puny next to a Vette. Love ya.
 DAD - like father, like daughter, great minds think alike, and we even look alike! Thanks for thinking so much of me and worrying about me too! xoxoxo, your favorite kid.

