

AGS, RHIC Users Meet Jointly for the First Time

At the annual meeting of users of BNL's Alternating Gradient Synchrotron (AGS), there was great discussion as to whether or not an independent program of high-energy physics experiments will be carried out at the AGS after 1997 — the year that the AGS is scheduled to become the injector for the Relativistic Heavy Ion Collider (RHIC).

Recognizing the AGS's future supporting role in RHIC, the gathering was for the first time billed as the Annual AGS-RHIC Users' Meeting, which on June 5-6 drew about 100 present AGS users and future users of RHIC.

The only thing that was resolved about the future AGS physics program was that it doesn't only depend upon the physics that comes out of the machine over the next five years. In these times of tight federal budgets, it also depends upon individual users convincing their congressional representatives and senators — and their local constituents — of the importance of science in general and the AGS high-energy physics program in particular.

Hammering home this point to the users was Congressman John Myers of Indiana. He is the senior Republican on the Subcommittee on Energy and Water Development Appropriations. Of the 12 appropriations bills that fund the federal government, this committee's bill, the Energy and Water Development Appropriations Bill, includes money for the U.S. Department of Energy (DOE) — and, as a result, BNL.

"When you have scientific breakthroughs and success stories to brag about, go out to brag to the local Kwanis Club, Lions Club and Rotary Club," urged Myers. "The American people have to prioritize what we are going to fund, but you can help them set their priorities straight — convince them of the importance of science research and development. You can't rely on politicians telling their constituents what's important because it works the other way around."

Two Views of the Future

As was reported to the users, the future of the AGS program in high

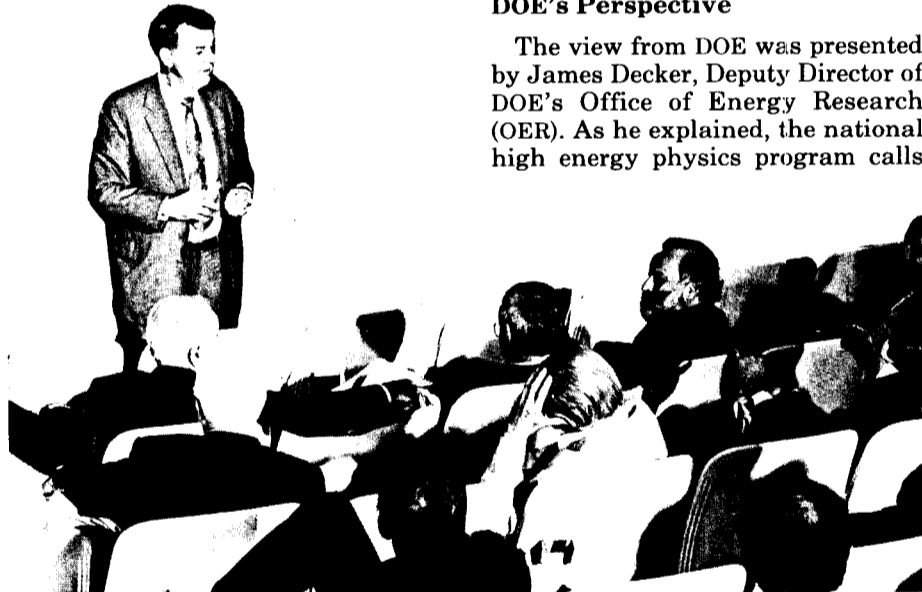
energy physics was outlined for DOE in the written recommendations of a subpanel of the High Energy Physics Advisory Panel (HEPAP). Known as the Witherell report for the subpanel's chairman, the document calls for the AGS to run "flat out," that is 25 weeks per year of proton beam for rare-kaon decay and other experiments, from 1994 through 1997. After that time, however, the report's authors recommend that AGS experiments cease when research at RHIC commences.

But, as Mel Schwartz, BNL's Associate Director for High Energy & Nuclear Physics, retorted, "While the report is right about the present in giving us high marks for the existing high energy physics program at the AGS, it is wrong about the future because you can't predict discoveries in this field within the next five years."

As Schwartz pointed out, if certain rare processes are discovered, for instance, by the one of the rare-kaon decay experiments, "I guarantee that the AGS will continue to operate for experiments well beyond 1997."

In addition, Schwartz commented, while the national high-energy physics community awaits the Superconducting Super Collider (SSC), "By looking at rare processes using a high intensity machine like the AGS, you can predict a lot about what will go on at multi-TeV energies long before the SSC comes on line."

Photos in this issue by Roger Stoutenburgh.



Congressman John Myers of Indiana addresses the Annual AGS-RHIC Users' Meeting.

for SSC construction in Texas to "move forward unless slowed by budget problems." In the meantime, the main injector for the Tevatron at Fermi National Accelerator Laboratory in Illinois will be upgraded, making "the Tevatron the highest energy machine in the U.S. until the SSC comes on line."

About the AGS, the highest intensity machine in the U.S., Decker said, "It is one of the oldest accelerators and has been one of the most productive. This facility continues to be vital for 700 physicists and 150 graduate students each year. The AGS's capabilities have been increased through the Booster, and Brookhaven has done a good job with that project. The AGS program is expected to end in FY97, but Brookhaven will experience new life with RHIC, also in FY97."

According to Decker, the Colliding Electron Beam Accelerator Facility in Virginia and RHIC are two ongoing projects that will provide new research opportunities for nuclear physicists once they come on line in 1995 and 1997, respectively. He warned, however, that while OER is now making significant investments in both high energy and nuclear physics, there are concerns about the future due to the federal budget problem.

"While the lack of funding for one project or another may not be new, what is new is that budgets are limited, growth is not expected, but (continued on page 2)

Ongoing Workshop Focuses on Advanced Accelerators



Tomorrow is the last day of the Workshop on Advanced Accelerator Concepts, which has been held at Danfords Inn in scenic Port Jefferson, where the above photo was taken earlier this week. The workshop is sponsored by BNL, the U.S. Department of Energy's Advanced Technology R&D Branch, the Office of Naval Research and the American Physical Society.

Since Sunday, June 14, nearly 150 accelerator physicists from Brookhaven and labs across the nation and around the world have been participating in this third workshop in a six-year-old series on this topic.

The current workshop is chaired by John Nation, a professor at Cornell University. BNL Physicist Ilan Ben-Zvi, who heads the Lab's Accelerator Test Facility (ATF), chaired the local organizing committee while Kathleen Tuohy and Pat Tuttle, Director's Office, coordinated the meeting.

The workshop coincided with the start of user experiments using low-energy electron beams and laser beams at the ATF, which the workshop participants toured on Wednesday.

The centerpiece of the Lab's Center for Accelerator Physics and Brookhaven's latest user facility, the ATF will permit accelerator physicists to research the physics of particle acceleration and to develop advanced accelerator technology. After five years of construction, the ATF stands ready to accelerate its electron beam to its full design energy of 50 million electron volts, pending final approvals.

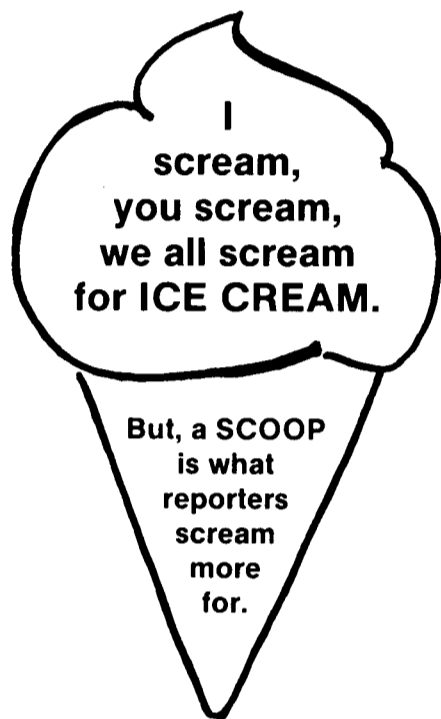
Workshop topics included talks about the concepts behind ultrahigh gradient accelerators, high brightness radiation sources and microwave sources, as well as discussions of the opportunities to test these techniques at the ATF. Specifically, the physicists considered the design of plasma accelerators; far-field devices such as inverse free-electron lasers and inverse Cerenkov accelerators; near-field devices such as wake-field and microstructure accelerators; and photocathode radio-frequency electron guns. — M.B.

Korean Nuclear Specialists at BNL

On a recent visit to BNL, Chang Rim, President of the Korea Atomic Energy Research Institute (KAERI), met with Lab Director Nicholas Samios. Later, Rim and KAERI Director for International Nuclear Cooperation, Han Kwon Choi (not shown), discussed programs of mutual interest with members of BNL's Department of Nuclear Energy.



Scoop of the Week



So, starting with the summer solstice at 11:14 p.m. tomorrow, Saturday, June 20, and continuing throughout the summer season, the Bulletin will be trading ice cream and frozen yogurt for hot tips in the fifth annual Scoop of the Week contest.

If you can scoop all of the Bulletin's informed sources with a hot tip — an idea for news or a feature — and if the Bulletin publishes a story based on your idea, the editor will award you a Scoop of the Week — a certificate for a free ice cream cone, sandwich or pop, or a cone of soft-serve, frozen yogurt with toppings.

The scoops are courtesy of the Service America Corporation, which operates the Cafeteria and the ice cream truck, where certificates may be redeemed.

So, rush your news and feature tips to the Brookhaven Bulletin, Bldg. 134, or call Ext. 5053. If your idea results in a Scoop of the Week, your name will be announced in the Bulletin and you will be sent an official certificate, suitable for framing or redeeming.

Speakers Bureau

The following speakers have given talks on behalf of the Laboratory:

Donald Gardner, Phys.: Career Day at Center Moriches High School, "Careers in Engineering," January 6.

R.C. Anderson, DO Ret.: Aspect International at C.W. Post College, "Man, Energy and the Environment," January 13.

Kathleen McIntyre, S&EP: Half Hollow Hills High School Science Club, "Radiation and Man," January 14.

James Brower, S&EP: Career Awareness Program at Harborfields High School, "Careers in Science," January 15.

Douglas Hill, DAS Ret.: Port Jefferson Lions Club, "After Shoreham: Long Island's Energy Future," January 20.

R.C. Anderson, DO Ret.: Patchogue Rotary Club, "Technology Transfer," March 11.

Louise Hanson, DAS: Greenport Elementary School Science Fair, Science Fair Judge, March 12.

Meyer Steinberg, DNE: Long Island Consortium of Physical Plant Administrators, "Effects of Energy Technology on Global CO₂ Emissions," March 20.

In Memoriam

Kenneth P. Thomson, who retired in November 1986 as Tool & Instrument Maker Group Leader in the Central Shops Division after 38 years of Lab service, died on April 4, at the age of 68. Thomson's long association with Brookhaven began on April 5, 1948, when he was hired as a machinist A. Having resided in Lake Ronkonkoma, Thomson is survived by his wife Arthura.

Retiree **George L. McGann** died on April 15 of a stroke, eight days before his 89th birthday. Hired by the Lab in its first year, McGann began

Eva Emmerich, AGS; Pamela Mansfield, CCD; Mary Wood, OMC: Academy of St. Joseph's in Brentwood, "Careers for Women in Science," April 2.

Brenda Laster, Med.: Long Island Physics Teachers Association Spring Conference, "Neutron Capture Therapy and Photon Activation Therapy: Binary Systems for Improving Cancer Radiotherapy," April 4.

Nicholas Samios, DO: Long Island Physics Teachers Association Spring Conference, "Big Science, Little Science: What Sets the Scale and Why Do It?," April 4.

Donald Gardner, Phys.: Bellport Middle School Career Day, "Careers in Engineering," May 1.

Denise Monteleone, Bio.: East Islip High School Career Day, "Careers for Women in Science," May 6.

Michelle Cummings, MIS: BOCES Islip Workshop, "Work Ethics: A Winning Attitude," May 19.

Michael Creutz, Phys.: Nassau County Science Explorations, "Quark Confinement," May 19.

Douglas Hill, DAS Ret.: IEEE Meeting, "After Shoreham: Long Island's Energy Future," May 21.

Meyer Steinberg, DNE: Exxon Research & Engineering Corporation, "Energy and the Environment," May 21.

work on March 31, 1947, as a firefighter. Twenty-one years later, he retired as a patrolman on June 28, 1968. A resident of Water Mill, he is survived by his wife of 54 years, Rita; their six children; and 12 grandchildren.

Walter F. Wilm, who had retired from Central Shops after 15 years of service, died in his sleep on April 23. He was 90 years old. Wilm was hired on September 5, 1950, as a machinist, and he retired on June 30, 1966, as a tool & instrument maker. He is survived by his daughter Carol Wilm Rohrer of Holtsville, and two sons: Walter Wilm Jr. of Huntington, and Arthur Wilm of Governor, New York.

DOE Offers Fellowships For Distinguished Postdocs

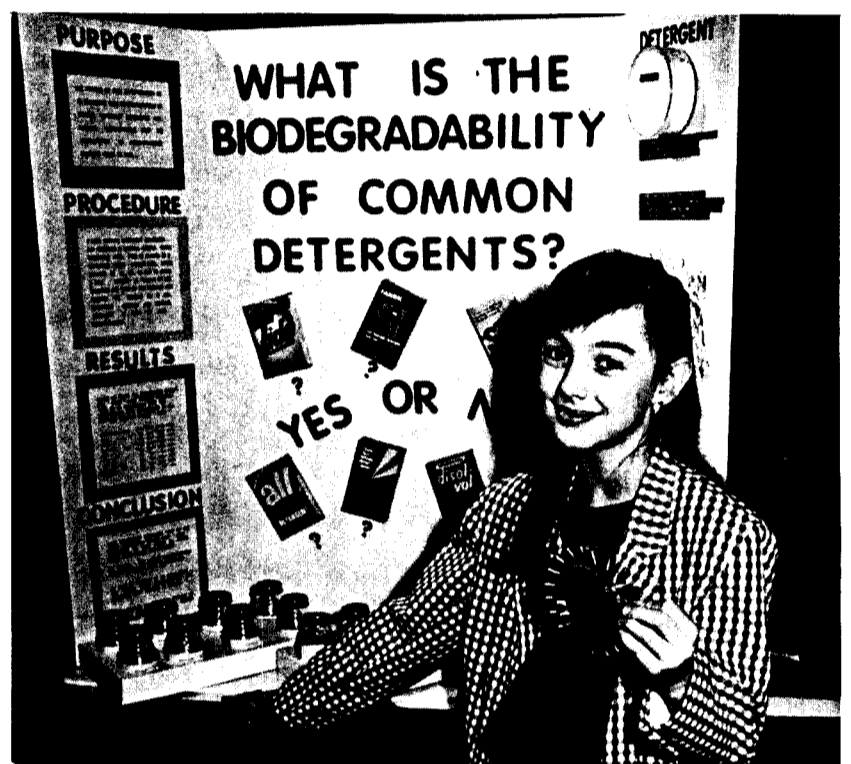
Secretary of Energy James Watkins has announced a new U.S. Department of Energy (DOE) program to attract some of America's best postdoctoral researchers to the national laboratories. The Distinguished Postdoctoral Research Program will provide outstanding postdoctoral scientists and engineers with opportunities to participate in full-time advanced research in critical areas of national need. As a result, the DOE initiative will broaden the pool of top scientists from which government, the academic community and industry can draw talent.

Fellowships, which include a \$52,800 stipend, will be awarded to scientists who have already earned their doctorates in the physical,

engineering or computational sciences, areas most critical to DOE. Up to ten fellowships will be awarded each year, and each award may be extended for up to two additional years. Selection of award winners will be made by panels of experts within the various disciplines.

Brookhaven is one of 16 DOE facilities participating in the program, which will be administered for DOE by the Oak Ridge Institute for Science & Education (ORISE). Citizens and permanent U.S. residents may submit applications, which must be received by August 1, 1992. For application forms and further information, contact ORISE or BNL's Office of Scientific Personnel, Bldg. 185A, Ext. 7813.

It's Elementary and Fair



Kristen Ryan, a fourth grader at Charles Walters School in Middle Island, won first place in her grade level at the Elementary School Science Fair held at BNL in May. Open to Suffolk County schools, for children from kindergarten through grade six, the fair drew over 340 projects involving 600 students. Projects were judged by BNL scientists teamed with local elementary school teachers, who based their choices on scientific thought, creativity, thoroughness and clarity. The fair is coordinated each year by the Public Affairs Office, with funding from the Office of Educational Programs.

Users Meeting (cont'd)

demand for OER funding has exploded," explained Decker. Some of the new demands on OER include: new Presidential initiatives; increasing environment, safety & health needs; and long-delayed repair of the national laboratories' infrastructure.

Facing no relief from tight budgets in the foreseeable future, Decker informed the audience that OER will adhere to the opinions of HEPAP and the Nuclear Science Advisory Committee (NSAC) in setting and sticking to a list of priorities within the respective physics communities.

"This will result in shutting down older facilities, some prematurely, but will enable us to have new facilities ready to carry the fields forward into the next century," Decker concluded.

Into the 21st Century

As Thomas Ludlam, RHIC Associate Project Head, reported, RHIC will be able to carry nuclear physics into the 21st century because NSAC has declared that it "is unanimous in its commitment to RHIC as a central element of the intellectual activity in nuclear physics," and it "is looking forward with great anticipation to the beginning of research at RHIC in 1997."

Ludlam then informed the audience of progress with RHIC, including the imminent signing of contracts with industry to build RHIC magnets and the May selection of the contractor for the conventional construction of RHIC.

Ludlam also mentioned that the collaborations to produce the two major experiments at RHIC, dubbed PHENIX and STAR, are preparing preconceptual and conceptual design reports, respectively, for their \$30-million devices; and the letters of intent to build two small, \$5-million RHIC detectors, one called PHOBOS and the other so far nameless, were approved.

"The machine construction is well under way," concluded Ludlam, "and, by this time next year, we expect that detector construction will be under way as well."

— Marsha Belford

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, June 22, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the president's report.

Leaving the Lab — After 35 Years or More

Charles Staal, a Senior Technical Specialist in the Alternating Gradient Synchrotron (AGS) Department, will retire on Tuesday, June 30, after serving BNL for 36 years.

In 1956, Staal needed a job and heard by word of mouth that there



Charles Staal

was an opening at the Lab. On April 16 of that year, Staal was hired as an electronics technician for the Cosmotron, BNL's first proton synchrotron. There, he built and serviced electronic equipment necessary for running the 3.3-billion-electron-volt (GeV) accelerator. By July of 1961, he was a Cosmotron senior operator.

Supplanted by the AGS, which came on line in 1960, the Cosmotron shut down in December 1966. So Staal moved to the power room of the AGS as a senior technician, maintaining and operating the power for this 33-GeV accelerator. He was promoted to a technician IV in 1967, to principal technician in 1979 and to his current position in 1980.

Staal has no definite plans for his retirement, but he jokes that he will probably be doing the wiring for his son's new house in Calverton. For now, he will stay in his Lake Ronkonkoma home, and, as far as missing the Lab, Staal said, "I will miss the people . . . they were most enjoyable." — Lorraine Madigan

Madigan is a summer student in the Public Affairs Office.

Water Aerobics

Water aerobics classes will continue through the summer.

Taught at the Lab pool and offered by the Health Promotion Program of the Occupational Medicine Clinic, the eight-week session of water aerobics will be held on Tuesdays and Thursdays, 5:15-6 p.m., starting July 7.

Participants may sign up for one or two classes per week, at a cost of \$2 per class. To register, call Health Promotion Specialist Mary Wood, Ext. 5923, as soon as possible, since each class is limited to 25 people.

Amateur Radio Club

The Amateur Radio Club will meet on Thursday, June 25, at noon in Berkner Hall to discuss the Field Day Activity on the weekend of June 27-28, the current status of recent equipment changes to the FM voice repeater system, the digital packet switch and the radio station in the Recreation Building.

All employees, guests and licensed amateur radio operators are invited to both functions. For more information, call John McNeil, Ext. 4572, or Gary Utz, Ext. 5903.

Cocktail Party Open to All

The 13th annual Cocktail Party sponsored by Brookhaven Women in Science will be held on the patio of the Brookhaven Center, on Tuesday, June 23, from 5:15 to 7 p.m.

Hot and cold hors d'oeuvres will be served. The cost is \$4 per person, \$3 for summer students with identification. There will also be a cash bar.

R.S.V.P. to Stephanie LaMontagne, Ext. 7141; Millie Laster, Ext. 3775; or Harriet Martin, Ext. 7761, by June 19.

Tennis Tournament

The 1992 annual tennis tournament will begin on Saturday, July 18.

All Lab employees and their spouses, as well as summer visitors and others with guest appointments, are eligible to play. In addition, because so few BNL women have signed up for the last several tournaments, the Tennis Committee is opening the women's entry to employees' daughters.

The tournament entry fee is \$3 per person per event. Sign up before noon on Monday, July 13, at the BERA Sales Office in Berkner Hall, where tournament rules are available. The draw will be posted by Tuesday, July 14, both at the Sales Office and at the tennis courts.

For information, call Om Singh, Ext. 5332, or Ken Perkins, Ext. 2147.

Equipment Demo

The products and services of the Schroff company will be on display in their Infomobile, which will visit the Berkner Hall parking lot on Tuesday, June 23, from 9:30 to 4 p.m. Equipment shown will include cabinets, cases, subracks, power supplies, backplanes, turn-key and assembled systems, and accessories such as front panels and connectors.

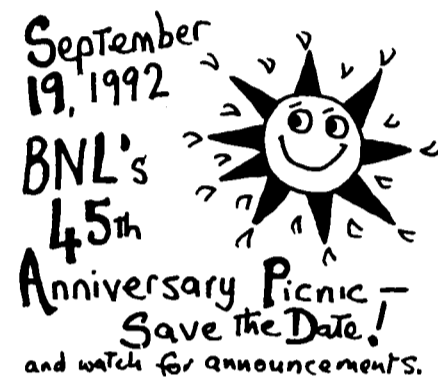
Software Demos

ARC/INFO, a geographic information system (GIS) developed and distributed by Environmental Systems Research Institute (ESRI), will be demonstrated on a Data General workstation in the lobby of Berkner Hall, from 11 a.m. to 1:30 p.m., on Wednesday, June 24.

The presentation will include environmental applications developed especially for Brookhaven by ESRI using BNL site maps and monitoring data. For more information, call Sharon Baxtor, Ext. 5919.

Scott Lamond of Synergis Technologies, Inc. will give a presentation on File Manager at 1 p.m., on Wednesday, June 24, in the CCD seminar room, Bldg. 515. File Manager runs on PCs with DOS and on SUNs with Unix in the network environment, and it helps to manage, track, view and maintain drawings, reports, ECOs, spreadsheets, databases, notes, memos, bills of materials, and volumes of drawing and documents.

Call Chris Neuberger, Ext. 4160, for more information.



A Change of Exchange In Apartment, Housing Areas

In 1981, when BNL first began using the 282 exchange, the 5,000 numbers available in the 2000, 3000, 4000, 5000 and 7000 series seemed like plenty. Since then, however, the 282 exchange has been filled. To allow for future growth, a new 341 exchange is now being used in the housing and apartment areas.

According to Nick Pisco, Telephone Services Supervisor in the Computing and Communications Division, "We decided to apply the new exchange only to the housing and apartment areas to minimize the impact on the scientific and other working areas of the Lab. Everyone in the areas affected by the new exchange was notified in advance of the change."

To call the apartment area, people on site do not have to dial the 341 exchange; as with 282 numbers, they only have to dial the last four digits of the phone number.

Although the new numbers are not listed in the current phone directory, a listing is available through each department or division secretary and from the Housing Office, Bldg. 179B, Ext. 2541. Lab operators also have the new phone numbers.

"It is not cost effective to put out a new phone directory now. The new numbers will be in the 1993 directory, which we will be preparing shortly," says Pisco.

BNL has 500 new numbers in a series of the 341 exchange. Out of that series, which ranges from 1000 to 1499, a total of 178 numbers have been assigned to the apartment area, thereby freeing an equal amount of 282 numbers for future use. — Lorraine Madigan

Swim Lessons For Children

Applications for the children's summer swim lessons are due Monday, June 22. Pick up applications at the pool, the BERA Sales Office in Berkner Hall, or Personnel, Bldg. 185.

For information, call the Recreation Office, Ext. 2873.

Arrivals & Departures

Arrivals

Teresa M. Baker Director's Office
Renu Doshi Medical

Departures

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

Stephen G. Laton Sfgds. & Sec.
Wei Xie Chemistry

Cafeteria Menu

Luncheons

| | |
|--------------------------------------|----------|
| Monday, June 22 | |
| Soup: Turkey noodle | .80/1.10 |
| Entree: Meat lasagna | 3.20 |
| Entree: Chef's choice | 3.25 |
| Fitness: Baked fish | 3.45 |
| Carvery: Hot pastrami sandwich | 2.95 |
| Grill: Cheese quartet w/French fries | 2.95 |

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|-----------------------------------|----------|
| Tuesday, June 23 | |
| Soup: Country vegetable | .80/1.10 |
| Entree: Prime rib w/veg. | 3.85 |
| Entree: Pueblo pork & chicken | 3.35 |
| Fitness: Chef's choice | 3.20 |
| Carvery: Hot roast beef sandwich | 2.95 |
| Grill: 1/4-lb. burger w/mushrooms | 2.95 |

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| Wednesday, June 24 | |
| Soup: Minestrone | .80/1.10 |
| Entree: Beef fajitas | 3.35 |
| Entree: Stuffed manicotti w/meatless sauce | 3.20 |
| Fitness: Chef's choice | 3.20 |
| Carvery: Hot baked ham sandwich | 2.95 |
| Grill: Hot ham & melted cheddar on bun | 2.95 |

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| Thursday, June 25 | |
| Soup: Cream of cauliflower | .80/1.10 |
| Entree: Boneless breast of chicken Dijon | 3.35 |
| Entree: Spinach fettucini Alfredo | 3.20 |
| Fitness: Chef's choice | 3.20 |
| Carvery: Hot corned beef sandwich | 2.95 |
| Grill: French dip w/fries | 2.95 |

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| Friday, June 26 | |
| Soup: Seafood bisque | .80/1.10 |
| Entree: Baked fish w/veg. | 3.45 |
| Entree: Pork Creole | 3.35 |
| Fitness: Chef's choice | 3.20 |
| Carvery: Hot roast turkey sandwich | 2.95 |
| Grill: Tuna melt w/French fries | 2.95 |

A Volunteer Circuit



Throughout the year, when college students tour BNL, they may be guided or otherwise helped by some of the volunteers pictured here. To fete their involvement in various aspects of the college tour program run by Public Affairs' Tour Program, a thank-you luncheon was held for: (back, from left) Gerry Van Derlaske, Lynette Finlay, Steve Hulbert, Peter Kohut, Evelyn Ritter, Richard Seebeck, Andy Feldman, Peter Mendolia, Al Campbell, Mark Walker, Gerhard Redelberger, Gary Barnett, Mark Culp, Victor Gutierrez; (center, from left) Donna Earley, George Taylor, Elizabeth Mogavero, Kathleen MacIntyre, Betty Pergan, Martha Simon, Barry Karlin, Pat Glynn, Ruth Fernow, Arlene Clay, Victor Gonzalez, Graham Smith, Thelma Dawson; (front, from left) Frances Scheffel, Violet Bezler, College Tour Coordinator Elaine Lowenstein, Sue Monteleone, Yousef Makdisi, Bonnie Sherwood, Ann Marie Luhrs, Linda Di Pierro, Tour Program Head Janet Tempel and Rosemary Cohen.

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