BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

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."

Gathered during a break at the Annual AGS-RHIC Users' Meeting: (from left) James Decker, Deputy Director of the Office of Energy Research, U.S. Department of Energy; BNL Director Nicholas Samios; Mel Schwartz, BNL Associate Director for High Energy & Nuclear Physics; and David Berley, Acting Director of the Physics Division, National Science Foundation.

Photos in this issue by Roger Stoutenburgh.

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."

DOE's Perspective

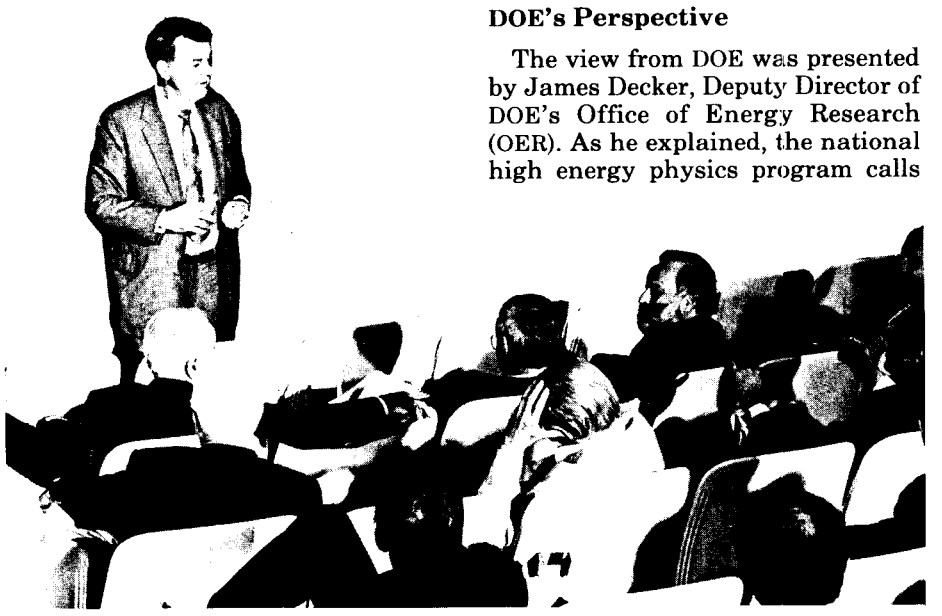
The view from DOE was presented by James Decker, Deputy Director of DOE's Office of Energy Research (OER). As he explained, the national high energy physics program calls for SSC construction in Texas to "move forward unless slowed by budget problems." In the meantime, the main injector for the Tevatron 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)



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

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.

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.

Scoop of the Week

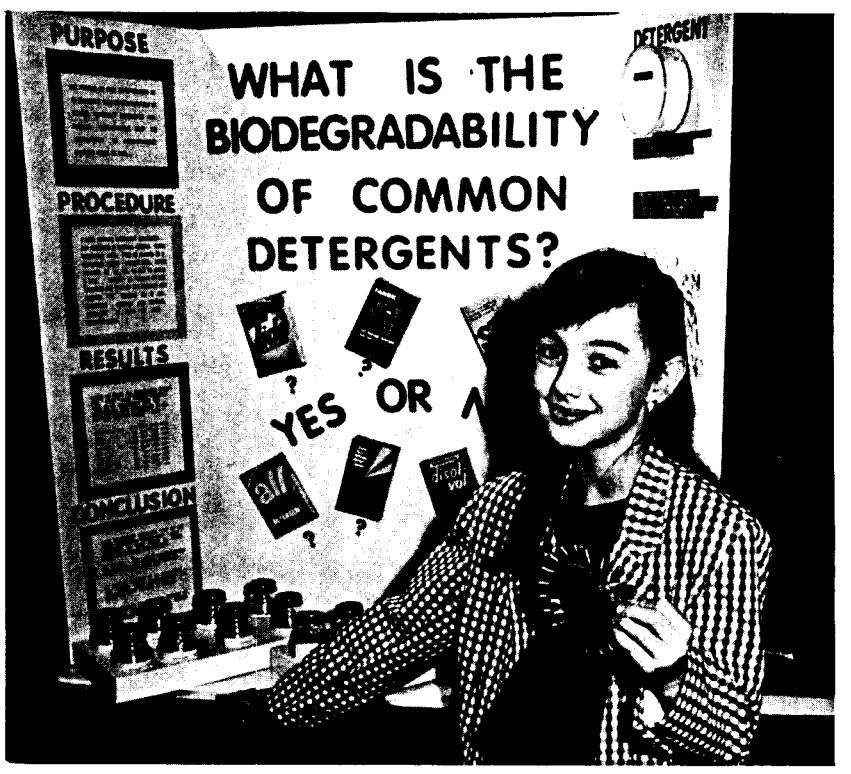
So, starting with the summer solstice at 11:14 p.m. tomorrow, Saturday, June 20, and continuing throughout the summer season, the Bulletin will be trading ice cream and frozen yogurt for hot tips in the fifth annual Scoop of the Week contest.

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.

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.

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 CO_2 Emissions," March 20.

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.

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 reseach 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

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.

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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 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.

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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.

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 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.

Charles Staal

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, Stall said, "I will miss the people . . . they were most enjoyable." — Lorraine Madigan

Madigan is a summer student in the Public Affairs Office.

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.

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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.

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.

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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
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: ¼-lb. burger w/mushrooms	2.95
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
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
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.

Let's Dance

The Dance Club class scheduled for Wednesday, June 24, has been moved to the ballroom in Bldg. 318, which is across the street from the Credit Union. For more information, call Walter Loss, Ext. 3086, or Marsha Belford, Ext. 5053.

Atlantic City Trip

Seats are still available for the one-day BERA-sponsored trip to Trump Plaza Hotel & Casino on the Boardwalk in Atlantic City, on Saturday, June 27. The cost is $20, but the Plaza will give a $5 coin return and a $5 deferred-return voucher. Buy tickets at the BERA Sales Office weekdays from 9 a.m. to 2 p.m. For more information, call Carolann Zebrowski, Ext. 3347; Rosalie Piccione, Ext. 3160; or Kay Dellimore, Ext. 2873.

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.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

MK 108. TOOL AND INSTRUMENT MAKER - Central Shops Division.

NS 0162. ROADS & MASONRY SUPERVISOR - Will direct employees on jobs, including assigning, training, scheduling, grievance handling and giving technical direction. Coordinates all work of unit; maintains records and reports; and supplies technical assistance and information as requested. (reposting) Plant Engineering Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

LF 8141. ENGINEERING POSITION - Requires BSEE or equivalent, excellent communication skills and a strong background in electrical safety. Knowledge of NEC and OSHA also required; CSP desirable. Responsibilities include design review for electrical compliance, development of electrical-safety policy and procedures, and assisting with electrical training. Will also provide other staff support, which includes audit/assessment functions, review of safety-analysis documentation, engineering drawings and hazard assessments. Safety and Environmental Protection Division.

DD 0164. RESEARCH SERVICES POSITION - Will perform various manual laboratory and service-support tasks, including washing, sterilizing and maintaining glassware for biochemistry, bacteriology and mammalian cell culture, as well as general laboratory maintenance. Previous work experience and the ability to lift large pieces of glassware are required. Biology Department.

Motor Vehicles & Supplies

91 DIRT BIKE - Suzuki RM250, excel. cond., extras, expertly maintained, asking $2,200. Lois, Ext. 4904 or 929-4753 eves.

91 ACURA INTEGRA - 3-dr., 5-spd., black, ac, factory alarm, am/fm cass., equalizer, p/w, sunroof, $13,900. Sharon, Ext. 5919 or 722-3010.

86 JEEP CHEROKEE - excel., $3,650; 86 Subaru GL-10 turbo wagon, 4wd, mint cond., $3,350; both high mi. Henry, Ext. 4662 or 727-7227.

85 FORD F150 PICKUP - 4x4, V8, a/t, new tires, trans. & muffler, looks good & runs excel., $4,500. Bob, 929-3098.

85 SUBARU XT COUPE - sunroof, am/fm cass., 95k mi., light blue. 757-1973.

85 LEBARON - convertible, a/c, low mi., full power, excel. cond., $3,800 neg. 281-7935 eves.

85 JEEP CHEROKEE CHIEF - 86 eng., new battery, muffler, tires, rebuilt carb., 4-dr., a/t, a/c, high mi., good, $3,600. Ext. 5919 or 722-3010.

85 PONTIAC GRAND AM - 2-dr., gray, high mi., all highway, a/t, a/c, p/s, orig. owner, good cond., $2,100. Gary, Ext. 3473.

84 DODGE ARIES - 4-dr., 70k mi., $500. Dennis, 878-9592.

84 COUPE DEVILLE - low mi., fully loaded, runs well. 399-7907 after 6 p.m.

83 HONDA PRELUDE - sunroof, new tires & exhaust, best offer. 744-7265.

83 CHRYSLER LEBARON - 75k mi., asking $1,500. Arne, Ext. 3422 or 341-1044 after 6 p.m.

81 PLYMOUTH HORIZON - runs well, new brakes & timing belt, $600. Nick, Ext. 4670.

79 OLDS CUTLASS - 20k mi. on new eng., rustproofed, many new parts, dependable transportation, $1,500. Harry, Ext. 4790.

79 TOYOTA COROLLA - h/b, 148k mi., runs well, looks good, best offer. John, Ext. 7706 or 7623.

78 CORVETTE - T-top, silver w/red int., good cond., 48k mi., $7,500 neg. 654-8601 after 5 p.m.

77 MERCURY MONARCH - a/t, p/s, ac, am/fm, 6-cyl., 88k mi., good cond., $800. 286-0001.

76 CHEVY NOVA - V8, rebuilt trans., Edelbrook manifold, Holley carb., headers, alum. wheels, good tires, $650. 751-2117.

71 GMC VAN - 35 series, heavy-duty, 1976 350-V8 eng., 3-spd. on column, runs well, body poor, $500. Bill, Ext. 7230.

69 FORD MUSTANG - runs well, looks terrible, $400; side-view mirrors, used for towing trailers or boats, fit most cars, $5/ea. John, Ext. 4028.

WHEELS - 2, GM, 14", 5-lug, excel. cond., $15/both. Paul, 727-4859.

RIMS - 2, Centerlines, 8", for Ford pickup; 4 Laredo 31"x10.50 tires; FE heads, flywheels, 69 Mustang parts. Wayne, Ext. 3084.

STEREOS - 2, am/fm, fit GM late model cars, $45. Walt, Ext. 7154.

TIRES - 3, Pirrelli P6, 195/60R-14, $50/all. Steve, Ext. 4211.

BUMPER - for 1980-86 Ford Bronco/pickup, good cond., chrome, $25. Clarke, 281-4871 after 6 p.m.

92 HARLEY DAVIDSON - 883 Hugger, black, belt drive, 2k mi., many extras, $6,200. 878-6007.

91 TOYOTA TERCEL - blue, 4-dr., 5-spd., a/c, p/s, p/b am/fm cass., 40k mi., spotless, $8,200. Walt, Ext. 3086.

89 GEO METRO - 5-spd., 4-dr., ac, am/fm, $2,995. Joe, Ext. 2898 or pager 0925.

89 MUSTANG GT - black, 5.0, 5-spd., 16k adult mi., ac, cruise, CD, flowmasters, custom rims, Calif. cover, $10,550. Roy, 286-5962.

88 TOYOTA TRUCK - 4/4, ac, stereo, alarm system, cocoa brown, black cap, mint cond., $7,500. Charles, 728-1931.

88 IROC 350 - T-tops, alarm, full power, low miles, excel. cond., must sell. Al, Ext. 2350 or 736-7306.

87 RENAULT ALLIANCE - sky blue, a/t, 80k mi., ac, new stereo, must sell, leaving for school, $1,400. Crystal, Ext. 2883.

87 GRAND MARQUIS LS - 4-dr., 5.0-liter engine, all extras, leather interior, excel. cond., orig. owner $4,400. Ext. 2146.

87 HIPOINT TRAILER - 21', totally enclosed f/g, rear ramp, side door, extras, ask. $3,500. Lois, Ext. 4904 or 929-4743 eves.

86 HONDA CRX - 5-spd., sunroof, am/fm cass., remote alarm, custom wheels, extras, 85k mi. $3,200/best offer. Rich, Ext. 2434.

86 CHEVY CAMARO - blue, V6, a/t, p/s, ac, new tires, immaculate in/out, ask. $3,750, neg. Melanie, Ext. 5141 or 874-2001.

86 MERCURY TOPAZ - 4-dr., p/s, p/b, ac, am/fm cass., 68k mi. Mardor, Ext. 4830/1059.

85 FORD ESCORT - white, a/t, p/s, p/b, 4-dr., hb, 80k mi., new parts, $1,000 or best offer. Vishwas, Ext. 3087.

85 PLYMOUTH VOYAGER - 5-spd., runs well, seats 7, 105k mi., cass., orig. owner, garaged, no rust, ask. $800. Ext. 4945 or 821-1953.

84 COUGAR - loaded, V-6, needs some engine work, make offer. Ken, Ext. 5927.

82 CHEVY MONTE CARLO - good cond., runs well, good transp., asking $800. Brett, 929-4753.

82 PONTIAC FIREBIRD - runs well, brakes & tires good, ac, 6 cyl., p/s, p/b, a/t, rebuilt engine & trans., $1,000 neg. Jim C., Ext. 4150.

81 PONTIAC T1000 - 4-dr., h/b, a/t, good local transp., may need windshield, $250. Skalyo, Ext. 2509.

81 TOYOTA TERCEL - 2-dr., 5-spd., ac, new brakes, good cond., runs well, 95k mi., $650. Rick, Ext. 3069 or 821-4188.

81 CITATION - handy-man special, good tires, new starter, $100. Lou, Ext. 3499.

80 HONDA CM200T MOTORCYCLE - low miles, excel. cond., w/helmet, $300. 744-6423.

75 CHEVY WAGON - full size, 400 engine w/turbo, 400 transmission, starts every time, some rust, 140k mi., $400/best offer. Ron, Ext. 4553.

74 CHRYSLER TOWN & COUNTRY - station wagon, $350. Tony, 698-9274.

65 FORD PICKUP - F-100, 6-cyl., 3-spd., tranny, runs well, chrome wheels, $850. Steve, Ext. 4627 or 928-6469.

METAL TOP - for Jeep CJ-5, 1955-65, $200; other parts. Ext. 4030.

RIMS - 2 Centerlines, 8" for Ford pickup; 4 Laredo tires, 31x1050; car alerts; FE parts; 69 Mustang seats. Wayne, Ext. 3084.

TRAILER TIRE - Goodyear, w/rim, new, 20.5x8.0-10, $15. 265-6542.

REAR SPOILER - for Nissan, new, $175 neg; tires, 4 13" fairly new, ask. $150; 4 five-star rims, $550 neg. Devonne, 924-2075 after 4 p.m.

BUCKET SEATS - high back, dark blue, mint cond., must sell, Joe, 698-7347 after 4 p.m. or leave message.

TIRES - 3, P195/75R14 on Maverick wheels, one almost new, $15. Ext. 7418 or 751-2117.

Boats & Marine Supplies

29' THOMPSON - 1987, two Mercs, FWC, radar, loran, loaded, mint cond., $39,900. 878-6007.

26' SEAWAY CABIN CRUISER - down-east hull, 200 h.p., Mariner Electronics stereo, enclosure sleeps 4. E. Lanning, Ext. 5993.

25' MORGAN SAILBOAT - in water, free use of mooring, recent OB & sails, $4,500; 18' Catamaran Sol-Cat, trailer, beach wheels, $1,375. 821-0686.

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

Irregular Ads Unacceptable

Classified advertisements for the Brookhaven Bulletin must be submitted on either a Sales & Notices, Real Estate or Services form, whichever is appropriate.

Forms are available in the lobby of the Public Affairs Office in Bldg. 134. Completed ads should be mailed or hand-delivered to the Bulletin, Bldg. 134.

Forms may be copied, but they should not be enlarged and excess paper must be trimmed. Ads submitted on oversized forms, without a form or via fax machine will be returned for resubmission on the appropriate form.

23' DORSET - full cabin, 165 Mer-cruiser, repowered 1988, 80 hrs. on eng. & drive, $4,000. Mike, Ext. 3558.

21' AUBNGER - 1982, 450 Ford Berkley Jet Drive, float on double-axle trailer, 55 mph., mint, $4,950. Ext. 4026.

16' DORRY - f/g, galv. trailer w/25 h.p. motor, extras, sacrifice at $650, ready for water. Mike, Ext. 7861.

AQUACAT SAILBOAT - 2-hull w/trailer, tramp, sail perfect, $10 part needed, $800 complete. Ron, Ext. 4553.

DEPTH FINDER - complete & working, $75. Paul, 727-4859.

DEPTH RECORDER/FISH FINDER - paper printout, Sitex HE 357 series, cost $340, ask. $100. Ext. 2769.

SAILS - for windsurfer, North Delta 6.2m², $130, 5.7 Hifly by Gaastra, 5 batten, 2 camber, $110. Joe, Ext. 4139.

Furnishings & Appliances

BEDROOM SET - 5-piece, trad., armoire, dresser, 2 night tables, bed, 2 mirrors, $350. Bob, Ext. 3457.

CABINET - Col., maple, w/record player, radio, storage 72"x35"x23", $150. Saxon, 929-4701.

DINING ROOM - table, 6 chairs, solid oak, 1930s vintage; 2 sets of bone china; credenza. 286-0466.

REFRIGERATOR - Whirlpool, self-defrost, white, 2 yrs. old, $500. Irving, Ext. 2827.

MICROWAVE - Maytag, full size, digital, $40. Frank D., Ext. 2022.

AIR CONDITIONER - Carrier, 13,500 Btu, energy efficient, auto. timer, used 1 season, warranty, $400. Melanie, Ext. 5141 or 874-2001.

BED - twin, four-post, canopy, white, $40; elec. stove, self-clean, gold, 5 yr. old, $100. Ronnie, Ext. 7958.

BEDROOM SET - queen, bed, end tables, dresser, mirror, armoire, like new, $690 neg. Ext. 4661.

BEDROOM SET - king-size headboard, triple dresser w/mirror, single dresser, $250; 2 dry sinks, $50/ea. Ext. 4519.

BEDROOM SET - triple dresser w/mirror, needs handles, chest of drawers, 2 night stands, bed, $95; elec. motors, $5/ea.; lawn mower. 878-6637.

BICYCLE - 10-spd. $70. Ext. 3922.

BOXSPRING - Stern & Foster, queen-size, mint, $50. Lily Liu, Ext. 2973 or 751-5667.

CABINET - Hoosier, early 1900s, good cond., for storage, $500. Wink, 286-4291.

COUCH & CHAIR - $100, swivel recliner, gold/green stripe, excel. cond., $25. Paul, 727-4859.

TABLE - dining room, teak, 53"x35½", w/extensions, v.g. cond., $200. Ext. 4932 or 928-8993.

DINING ROOM - table w/3 leaves, 2 arm & 4 side chairs, china cabinet, buffet; 30" elec. range; d/w; 22 cu. ft. refrig.; copper. Tony, 281-0350.

FUTON SOFA - queen size, $50; Formica dining table, $30; large white desk, $50; Oriental rug, $20. Paul, Ext. 3790.

COUCH - loveseat & chair, excel. cond., $350. John, 563-6596 or 563-9223.

KITCHEN CABINET - upper glass doors, excel. cond., $30; assorted lamps, 3-way, $10-$20; 20" fan, $14; wood bar stools, $5/ea. 744-7172.

REFRIGERATOR - GE, w/freezer, KitchenAid dishwasher, $75/ea. or $125/both. Walt, Ext. 2241.

REFRIGERATOR - Whirlpool, self-defrost, 20 cu. ft., 2 yrs. old, $500; GE clothes dryer, gas, $75; $525/both. Ext. 2827.

SOFA - 8½' long, shrimp-colored linen, $500; credenza; bone china, 2 sets. 286-0466.

WASHER - $150; dryer, $150; refrigerator, free. J. Howard, Ext. 3590 or 878-3119.

WATER BED - queen, motionless, wood finish headboard w/bookcase, 3 yrs. old, orig. $550, make offer. Victor, 737-6517.

Tools, House & Garden

LAWN MOWERS - Jacobsen, 21", rear bag, 3½-h.p., $75; 3½-h.p. hor. shaft, $65, both Briggs & Stratton eng., more. Dan, Ext. 4987 or 698-7322.

LATHE - Rivet Toolroom on steel cabinet stand, 9"x24", excel. cond., $500. 475-8971 after 6 p.m.

PARKING LOT LINE STRIPER - model 3-10, walk-behind, $650. Richie, Ext. 4030.

LAWN MOWER - Snapper, 26", riding, w/grass catcher, needs work, no reverse, otherwise good, $175 neg. Walt, Ext. 7154.

JAPANESE RED MAPLE TREES - $10-$45+. 265-6542 after 6 p.m.

SKYLIGHT - Insuladome, brand-new, 30"x45", $250. Jim, 928-0397.

STORM DOOR - brown, 30", cross-buck, new, heavy-duty, half price, $65. Janet, Ext. 4049.

SHALLOW WELL PUMPS - 2, well water systems, one ¾ h.p., one ½ h.p., Micromet filters, 50 gallon, glass-lined tank, $75/all. Bill, Ext. 2171.

Sports, Hobbies & Pets

GO CART - 5-h.p. tech eng., seat belt, roll bar, diamond plate floor, knobby tires, asking $325. Dan, Ext. 4987 or 698-7322.

BIKES - 2, men's, 3-spd. & 10-spd.; rowing machine, best offer. Sue, Ext. 7235.

GAME TABLE - octagonal, converts to poker/bumper pool, no chairs, $125; library steps, glass, lighted, $100; both $200. Irving, Ext. 2827.

FISH TANKS - one 30 gal., one 20 gal., one 10 gal., w/pumps, filters, stands, $100. 265-6542.

BIKE - Cilo Sport-SE, SIS gear, used twice, 30 mi., $250; Cilo helmet, $50. Larry, Ext. 4295.

FISHING EQUIPMENT - 12', 2-piece surf rod w/Penn 700 reel, extra spool, $40; 10', 2-piece surf rod w/reel, $20. John, Ext. 3422 or 929-4101.

GOLF SHOES - Mizunu, 10½W, like new, high tech lifetime carbide spikes, orig. $100, $30. Culwick, Ext. 4930.

LABRADOR RETREIVER PUPPY - black, female, AKC registered, great family dog. 929-4993.

PAINT BALL EQUIPMENT - accessories, top of the line, must sell. Joe, 698-7347 leave message.

PET CARRIER - $20; wicker storage hamper, $20; wicker chair, $50; rocking chair, $20; gas barbeque, $35; b&w TV, $20. Kathy, 744-2203.

POOL FILTER - Hayward, w/new ¾-h.p. pump motor, $100. Ext. 7250.

UNDERWATER CAMERA - Nikonos II, w/access., refurbished by Nikon, $1,300. Carl, Ext. 4420.

Audio, Video & Computer

CAMCORDER - Sony, 8mm w/case & accessories, $500 neg. Mike, Ext. 4199.

COMPUTER - Commodore 64, 2 disk drives, printer, software, $150. Bob, Ext. 2314.

COMPUTER - word processing, spreadsheets, amber mon., 20mb hard disk, 1.5mb mem., mouse, 101 keyboard, $500 or best offer. Ron, Ext. 4553.

COMPUTER - Commodore 64, 1541 disk drive, monitor, joysticks, many programs, like new, $250. Steve, Ext. 4627 or 928-6469.

PLOTTER - Ioline LP3500, D-size, w/vinyl sign cutting knife & hot tip attachments, many extras, $1,750 or best offer. Rich, Ext. 2434.

SPEAKERS - Polk Audio 2.3 TL, $1,000. Marie, Ext. 2950 or 399-3401.

Miscellaneous

WEDDING GOWN - size 10, sweetheart neckline, lace bodice. Steele, Ext. 3496 or 929-8912.

ENCYCLOPEDIA - Colliers, full set, $120; 2 pr. fashion boots, woman's, leather, size 6, 1 brown, 1 black, $30/ea. Gene, Ext. 7113 or 751-2621.

FUR COAT - rabbit, boot length, size medium, $150. Ext. 4519.

FUEL TANK - gasoline, for boat, 18 gallon, $10; battery charger, $15. 475-1254 or 475-3366.

HATCH COVER TABLE - $85; professional dart board, $25; Radio Shack FM intercoms, 2 sets, never used, $30/ea. Carl, Ext. 4420.

LUGGAGE CARRIER - for top of car, excel. cond., $40. Ronnie, Ext. 7958 or 281-1862.

TICKETS - 2, Doo Wopp Reunion, Nassau Col., 6/27, 8 p.m., section 218, $27. Doris, Ext. 7610.

Free

COAL - pea size, approx. 1-2 tons, you pick up. Bob, Ext. 5211.

KITTEN - male, sable, about 9 wk., orphan, needs good home. Vicki, Ext. 5205 or 744-8765 after 6.

Yard & Garage Sales

RIVERHEAD - N. of Sound Ave., W. of Roanoke, 4 families, block full, Sat.-Sun. June 20-21.

Lost & Found

LOST - 7-wk., wild, calico kitten, 6/10 a.m., 197C, if you cannot keep, I will pick up and return to mother. Ext. 7610.

Wanted

APARTMENT - 1 or 2 bdrm., between Exit 49-55. Ext. 2396 or 744-4617.

BABY-SITTER - for 6 yr. old in my Cen. Moriches home, 3-5 days a wk., nonsmoker, refs. 744-0554.

BEGINNER WATER SKIS - and 7-8 ft. oars. MaryLynn, Ext. 7796.

BIRD CAGE - large enough for cockatiel, reasonable. Lois, Ext. 4904 or 929-4753 eves.

CANOE - 15'-17', alum. or fiberglass. John, Ext. 7671 or 765-1299.

FRIENDS OF JUNIOR SANTIAGO - to have birthday/lambada party. Izzy, Ext. 2311.

GOLF CLUBS - for adult beginner, right-handed female. Eloise, Ext. 4495.

HESS TRUCKS - clean out your closets, top $ paid by private collector. Jim, Ext. 4026.

HOUSE - to sit/rent, by former Physics Dept. employee, wife and child, July 22-29, Ext. 2752 or 751-6571.

HOUSE/APT. - Swedish family of five wants to rent during July or part of July. Strand, Ext. 7660.

HOUSING - for visitor's family, July & August, Three Village area preferred. T. Chu, Ext. 2389.

HOUSE-SITTER - July 18-Aug. 2, Aug 7-Aug. 23. J. Howard, Ext. 3590 or 878-3119.

LAWN MOWERS & LAWN TRACTORS - riders, old, complete. Dan, Ext. 4987 or 698-7322.

PATIO UMBRELLA - would like to buy in excel. cond. John Bennett Sr., 281-5792.

RAMBLERS - Tired of being accused of rambling on during speeches? Visit Toastmaster to see how we cure it. Darryl, Ext. 7892.

TRAILER WHEELS - 11", 5 lug. Sharon, Ext. 5919 or 722-3010.

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