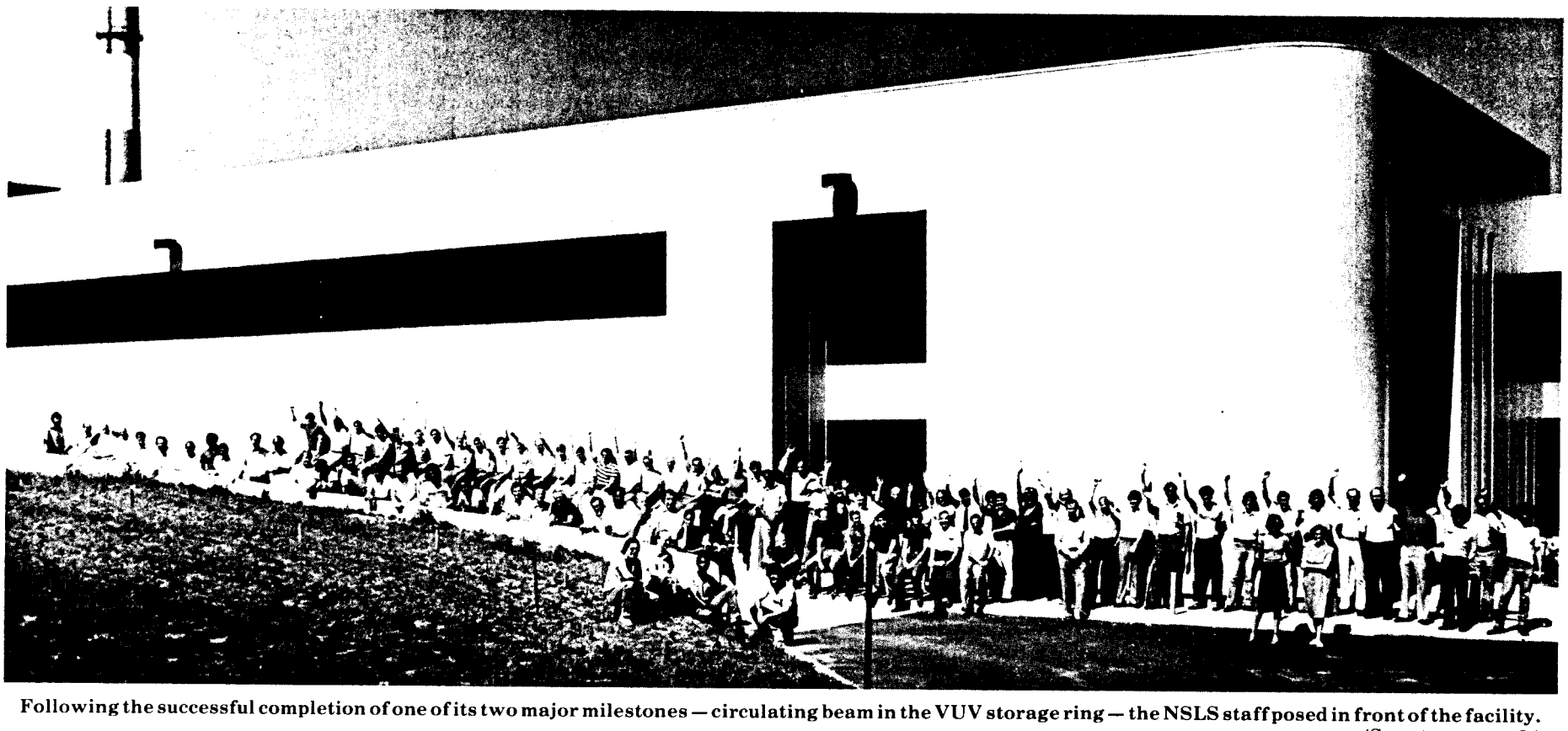
BROOKHAVEN BULLETIN

Vol. 35 - No. 32 August 21, 1981

BROOKHAVEN NATIONAL LABORATORY



Doug Humphrey

Following the successful completion of one of its two major milestones — circulating beam in the VUV storage ring — the NSLS staff posed in front of the facility. **(See story page 2.)**

Unifying Computer Resources

More than voices are being transmitted over the GTE telephone lines at BNL these days. Some lines are dedicated to voiceless communication between computers and people.

The middleman in this latter effort is located in the computer room of the Applied Math Department (AMD). Called Gandalf (no relation to Tolkien's wizard) after its manufacturer, Gandalf Data, Inc., it is also known as PACX, for Private Automatic Computer Exchange.

Engineer Ralph Trondle, of AMD's Technical Development Division, was one of those who recognized that this equipment could provide the Lab with a desirable capability — resource sharing. As Trondle explained, "We had a resource — many computers. And we had a number of users who wanted to share them. This type of computer switch can cut costs considerably while allowing users to access many different computers, providing, of course, that they also have the correct passwords."

Computers belonging to Applied Math, Physics, ISABELLE, Accelerator and Meteorology are among those now connected to the Gandalf switch. Trondle predicts that with this "unified approach to computing," even more Lab computers will be tied into the system as the various departments team up to make the Lab's computer resources available to all who wish to share them.

Although connections are made through the GTE cable system, plans for the new telephones and the computer exchange were initiated separately. "We knew the GTE system was in the offing, but our plans didn't hinge on that," Trondle said, "We would have acquired this equipment in any case because it suits our needs. Eventually, though, we'd have had to rewire the site to use the system to its full capability since the New York Telephone cable facilities were exhausted. So the advent of GTE was fortunate and timely, because our cable could simply be included with that being laid for the regular telephone system."

Eight months before GTE began laying cable, Trondle was overseeing the PACX installation. With assistance from technical supervisor Ted Daniels and technical specialist John Lemmon, the system was connected to AMD computer ports, then to terminals in AMD and Physics. But limited telephone cable capacity precluded further expansion.

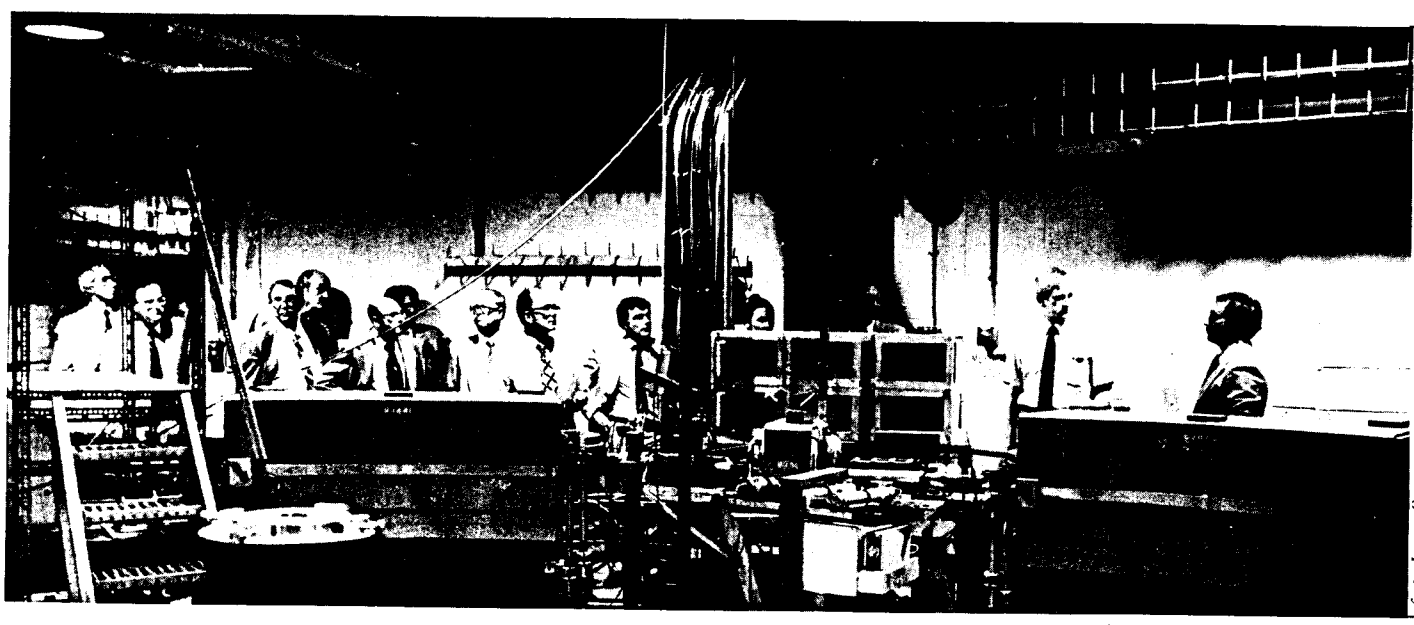
To remedy this, Trondle, acting as technical liaison for the Lab's data requirements, worked closely with Staff Services during the installation of the GTE system. Based on AMD estimates of the future needs of the Lab's computer users, a 1200 pair cable, solely for data, was laid between AMD and the GTE central office, and part of the Lab's cable plant was set aside for system connections.

Doug Humphrey

Having removed a piece of flooring in the computer facility to reach the GTE cable plant underneath, technical specialist John Lemmon installs a connection between the Gandalf exchange and those cables. Similar connections made to terminals throughout the Lab bring the switch's capabilities to computer users in many departments.

Once a user is connected to the exchange, resource sharing can begin. A typical user can select from any one of ten computers presently tied into the system. For example, a person at the AGS may access a file in a CDC 6600 computer at AMD, and, later, select a VAX computer at ISABELLE. More importantly, computer-to-computer interconnections have become routine. Engineers at the On-Line Data Facility (OLDF) have worked closely with Trondle to provide multiple terminal and port connections for ISABELLE and the AGS. As a result, aided by a remote controller at the OLDF, some users can transfer files between any two computers connected to the PACX.

(Continued on page 2)



Doug Humphrey

BNL Reviewed

Tours of the NSLS and the ISABELLE site were part of the agenda when Alvin W. Trivelpiece, new Director of DOE's Office of Energy Research, came to BNL on August 13 for an institutional planning review. Other visitors included DOE personnel from Washington, D.C. headquarters and the Chicago Field Office, and a DOE representative for the Nuclear Regulatory Commission. Pausing by the booster synchrotron in the NSLS, Trivelpiece (second from right) discusses the facility's progress with Martin Blume (right), BNL Assoc. Director for Low Energy Physics and Chemistry.

Behind Every Successful Mann. . .

For Jayne Mann, summertime is blackberry picking, beaches, farm stands and old friends at Brookhaven. Since the early 60's, she has come to the Lab nearly every summer, keeping company with Alfred Mann, noted high energy physicist who is also an

Doug Humphrey

Jayne Mann and granddaughter Jennifer.

AUI Trustee. Like birds following time-honored migratory patterns, high energy experimental physicists routinely travel each summer to the fancy machines where they can plunge full-time into their experiments. Because of her husband's work, Mrs. Mann has also been to Fermilab in Chicago, Illinois; CERN in Geneva, Switzerland; and the Australian National University in Canberra, Australia. But she knows Brookhaven best.

"Al and I first came in 1949," says Mrs. Mann. "He was at Columbia University then, and we were here for just a quick look around." That time, they stayed at the Wading River Motel, a few miles northeast of the Lab. But from the 60's, when her husband began a regular association with BNL, Mrs. Mann and a succession of little Manns have summered on-site in the apartment area.

She has good feelings about raising her four children through all the summers at the Lab. And now the next generation of Manns is on site with her. Granddaughter Jennifer, 10, has spent the last five summers here. Besides having the resources of Long Island available to explore, the Lab itself is a great place for kids, says Mrs. Mann. The woods are still wild enough for building forts, the summer recreation program is well planned, and children from all over the world can make instant playmates even if they don't speak the same language. An added treat for the Mann children, of course, is that they were shown Al Mann's experiments — not that they had science lessons all summer long.

On the contrary, reports Mrs. Mann, "Al never talks about his work at home. And I admit to not understanding any of it."

She says she has heard him lecture only once, in Trieste, Italy. On that occasion, they had gone to dinner with friends, her only ride back to the hotel was with the same group, which was going to the lecture, and since it was pouring rain, she couldn't pass the time sitting outside. As she puts it, "I was nailed to the wall."

Although she doesn't choose to be actively involved with her husband's career, beyond low-keyed socializing with his colleagues and their families, Mrs. Mann's life is wound around her husband's. They met in college and she was married at 20, never completing her business degree. "The mold for women then was to get married and have a family. I think it's marvelous that today you have the opportunity to do so many things," says Mrs. Mann. "But I'm a nurturing soul," she adds. "I like playing the role I do. I'm content."

In Philadelphia, where they're headquartered during the school year while her husband teaches physics at the University of Pennsylvania, Mrs. Mann keeps a busy schedule. She does volunteer work with the "Meals on Wheels" program and at the Children's Heart Hospital. She also takes university courses and attends theater and concert performances. Around the house, favorite activities are cooking and gardening.

She admits to being the primary caretaker of their four children, mainly because she's home the most, and she is very pleased with the good relationship she has with them. The younger Manns now range in age from 17 to 32, with the youngest about to leave the nest in the fall. They have various jobs — furniture repairman, actress, stockbroker and maybe-veterinarian. None of them is a scientist, and the only daughter, says Mrs. Mann, is definitely a career woman married to the stage. "Give them enough freedom, and they certainly don't pattern themselves after you," she says.

Al Mann takes a sabbatical next year, and their current plans do not include a summer at Brookhaven. Mrs. Mann certainly expects to come again, however.

In the twenty-odd times they have summered at Brookhaven, they've never stayed in the same dwelling twice. "I never know if I'm going to have to be a lefty or a righty," she says, referring to apartment floor plans. "But I always look forward to coming here. I just move right in with my mixer and my mint."- M.S. Rowe

Computer Resources

(Cont'd)

The switch has 128 computer ports, each of which is assigned a class code based on its characteristics, such as speed, computer and protocols. Sitting at one of the 256 terminals that can connect to the switch, the user makes a selection simply by entering the class code that represents the service desired. Up to 64 class codes may be assigned, with as many ports per class as necessary. It is this flexibility that allows port contention.

"Contention is simply a means of getting the most out of a limited facility," Trondle explained. "With contention you can hook up more terminals than the available ports. If the terminal to port ratio is properly chosen, users aren't even aware that they're contending."

The data people at AMD take this idea even one step further, with contention on contention. Some buildings are being equipped with jack-like connections into the system. But, where there are 12 jacks, there may be 24 part-time users. After contending for, and then temporarily hooking into one of those jacks, the user must still vie with 255 other terminals for one of the 128 computer ports.

If contention results in too many users wishing to access too few ports, AMD personnel are alerted by another feature — statistics output. On a hard copy printer, the Gandalf provides valuable statistical information about system activity, including service denials. Based on these data, port resources can be redistributed if they're not being utilized effectively.

Working rapidly, at speeds as high as 9600 bits of information per second (bps), the system is very cost-effective. As Trondle pointed out, "Modems on a dial-up connection can't work that quickly. A 1200 bps dial-up modem typically costs $950 and ties up the user's phone when it's working. A PACX connection only costs $500 to install and can operate at all standard bit rates, up to 9600 bps."

AMD is planning to upgrade this service later in the year with a PACX IV, which will be totally microprocessor controlled and twice as big as the present model, a PACX III. This new Gandalf will team up with the GTE system to provide enough capability to satisfy BNL computer users for some time to come.

— Anita Cohen

How Your Voice Is Lost — And Found

If computer equipment like the Gandalf exchange awes you, you may be surprised to learn that you are using a similar instrument every time you pick up your GTE telephone. You may also be surprised at the fact that the voices you hear on the phone are not the real voices of the people with whom you're conversing. They're only very reasonable facsimiles.

As someone speaks into the phone, a device at the central office samples the amplitude of the voice. In a conversion process, each amplitude sample is assigned a binary value. To assure an adequate representation of sounds, samples are taken at a rate at least twice that of the transmission.

The numbers that represent the voice enter a data highway. At intervals so small that they're not perceptible to telephone users, the digital data go down the highway one by one, as the time slots for that particular connection come up. Before leaving the central office, a digital-to-analog converter reconstructs the original amplitudes so closely that they sound like the person's real voice.

AMD's computer exchange works in basically the same fashion, except that the data starts out in digital form and needs no conversion. — A.C.

CREF Values

July	47.84	August	48.04
September	48.75	October	49.13
November	53.19	December	51.77
January	50.20	February	51.21
March	52.85	April	52.39
May	52.56	June	51.94

July $51.19

Major Milestone For NSLS

When, on August 12, circulating beam was obtained in the Vacuum Ultra Violet (VUV) Storage Ring of the National Sychrotoron Light Source, one of two major milestones for the project was reached.

Although he called this initial beam "modest," in terms of intensity and the amount of turns it made in the VUV ring, project head Arie van Steenbergen explained that this constituted a major step because it tested an anormous variety of components in the chain of Linear Accelerator-Booster Synchrotron-VUV Storage Ring. "A combination of accelerators-storage ring like this has as many or more design demands as one ten times its size," he said. "Now we know that its basic elements are in good shape. The project staff deserves great credit for having done so much, with so few, in such a short time."

Efforts at the VUV ring are now directed towards increasing the stored beam intensity by multiple charging from the Booster Synchrotron and by increasing its lifetime. Photon beam lines are under construction and it is expected that, by the middle of September, early experimental data taking will take place. "Interest in using the NSLS storage rings has been somewhat overwhelming," van Steenbergen stated. "Approximately 65 per cent of the potential photon lines have been committed. Within one year, we will see the experimental floors covered with a great variety of instruments."

The second major milestone for the project - the commissioning of the 2.5 GeV X-ray Storage Ring -is expected to commence late September. As of two weks ago, all its magnetic elements were in place, and its beam chamber had been evacuated. The transfer line between this ring and the Booster Synchrotron is now being completed, with its testing to begin shortly.

IBEW Notice

There will not be an August general meeting of Local Union 2230, IBEW.

A Record Of Doing Business With Small Businesses

Doug Humphrey

Each year, the Department of Energy grants acheivement awards to recognize exceptional performance in contracting with small disadvantaged and small businesses. For meeting and exceeding assigned goals, Brookhaven recently received its third such award. Here, Laboratory Director George Vineyard (foreground) accepts the latest Certificate of Achievement from David Schweller, Manager of DOE's Brookhaven Area Office. Also present were James Desmond, Business Manager (left), and Vincent O'Leary, Associate Director.

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Mountain Club

There will be a meeting of the Mountain Club at 7:30 p.m. on Tuesday, August 25 in the North Room of the Brookhaven Center. Plans will be discussed for upcoming fall trips. All interested parties are invited.

Cafeteria Menu

Week Ending, August 28, 1981

Monday, August 24

French onion soup	(cup)	.55
	(bowl)	.65
Turkey chow mein & rice		1.55
Beef & bean bake		1.55
Hot Deli: Sandwich steak w/pepper & onions	(on bread)	1.70
	(on roll)	1.80

Tuesday, August 25

Cream of mushroom soup	(cup)	.55
	(bowl)	.65
Spaghetti & meatballs w/garlic bread		1.55
Roasted fresh ham w/barbeque sauce		1.65
Hot Deli: French toasted grilled ham & cheese		1.60

Wednesday, August 26

Turkey rice soup	(cup)	.55
	(bowl)	.65
Beef stew over noodles		1.65
Southern fried chicken w/cranberry sauce & 1 veg.		1.55
Hot Deli: Baked Virginia ham	(on bread)	1.65
	(on roll)	1.75

Thursday, August 27

Minestrone soup	(cup)	.55
	(bowl)	.65
Corned beef & cabbage		1.60
Baked lasagna & 1 veg.		1.55
Hot Deli: Monte Cristo		1.70

Friday, August 28

Manhattan clam chowder	(cup)	.60
	(bowl)	.70
Stuffed flounder & 1 veg.		1.55
Baked ham w/pineapple sauce & 1 veg.		1.55
Hot Deli: Meatloaf hero w/barbeque sauce		1.70

Speakers Bureau

June — July

Neal Tempel (Bio.), Wagner College, Tradescantia Mobile Monitoring Vehicle, June 4.

Karen Schaich (Med.), Bellport Senior Citizens Club, Nutrition for the Elderly, June 10.

Ralph Jones (DEE), Nassau County Museum Nature Weekend, Building the Brookhaven House, June 28.

Marjorie Schnader (DEE), Suffolk Country Energy Conservation and Development Board, Overview of the National Center for Analysis of Energy Systems, July 6.

R.C. Anderson (DO), Education Advisory Council, Energy, Energy Resources and Uses, July 13 and 20.

Charles Baxter (DOE), Education Advisory Council, History of the National Energy Development, July 13 and 20.

Louis Harson (PE), BOCES Gifted and Talented Summer Institute, Camp Upton and BNL History, July 14.

Andrew Hull (S&EP), Education Advisory Council, Health Effects of Alternative Fuel Cycle, July 17 and 24.

Louis Harson (PE), Association of Suffolk County Historical Societies, Camp Upton and BNL History, July 25.

Vance Sailor (DEE), Westhampton Garden Club, BNL General, July 27.

Cast Call

"Exit The Body," a mystery farce, will be the fall production of the BERA Theater Group. This hilarious romp depicts the strange antics of a lady mystery writer on a summer vacation in New England who is suddenly confronted with several "real live" bodies. The cast requires five men and five women, and newcomers are especially welcome. Anyone with a yen to try backstage work is also encouraged to come around. Auditions will be held on September 1, 3, 9 and 11, from 7:30-9 p.m. in Berkner Hall, except for Sept. 9, which is in the North Room of the Center. For additional information, call Liz Russell, Ext. 3940.

Arrivals & Departures

Arrivals

James S. Donnelly ..... Accelerator
Robert G. Geib ..... Central Shops
Lewis Jiggetts ..... Accelerator
Walter H. Shaffer ..... Accelerator
Fred Vaslow ..... Nuclear Energy

Departures

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

Gary L. Krieger ... Safety & Env. Prot.
Gary P. Larson ..... Instrumentation
Owen W. Murphy ..... Plant Engrg.
David J. Schlyer ..... Chemistry
Srinual L. Schlyer ..... Energy & Env.
Carmen Wolmart ..... Applied Math.

Alvin Ailey Dancers At BNL

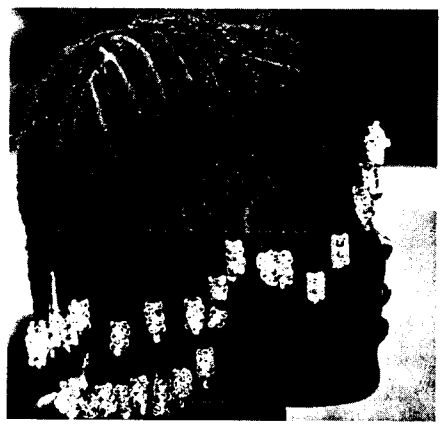
One of America's most exciting young dance companies, the Alvin Ailey Repertory Ensemble, will be at BNL for a one-time-only performance on Thursday, September 24 at 8 p.m.

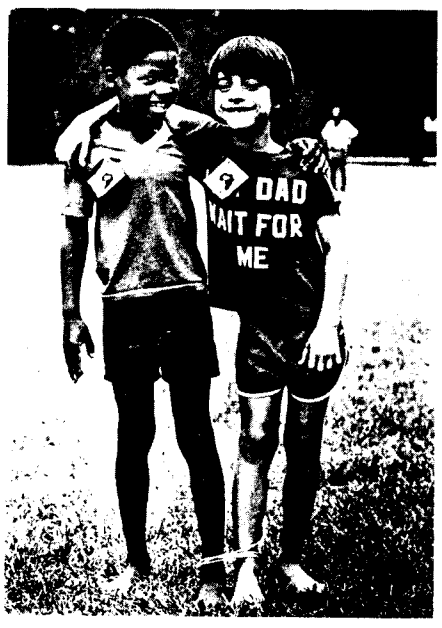
For this special show, tickets are priced at $9 each, and will be on sale through August 31 from Gerry Bunce, Ext. 4771; Julia Larsen, Ext. 7291; Blanche Laskee, Ext. 2873; Jean Logan, Ext. 4391; Pat Manzella, Ext. 3347 (BERA Sales Off.); and Gail Williams, Ext. 3338.

There are no reserved seats, so get your tickets early.

Diners Note

The Cafeteria will be closed on Saturday, August 22. On that day, Snack Bar service will be available from 9 a.m. to 2 p.m. at the Brookhaven Center.





A Fun Picnic

Last Saturday, a few hundred BNL employees, their families and guests enjoyed a soul food picnic sponsored by the Afro-American Culture Club. It was a great summer day for good food and lots of fun.

— photos by Alex Reben

Softball

Scores for week of August 10:

League I

All games were double headers.

First Game:

Blue Jays 24 — Source I 5

Ed Meier and J. Flannigan were 3 for 4 for Source I. For the Blue Jays, Larry Musso was 5 for 5, Nick Pisco 5 for 6.

Ravens 14 — Six Pax 8

Second Game:

Blue Jays 8 — Source I 4

Mike Iarocci was 3 for 3 for Source I. For the Blue Jays, Hank Arnesen was 3 for 3, Larry Musso was 2 for 2, having a perfect night of 7 for 7. Bob Jansson, Hank Strelicki and Tony Kossiokoff were 2 for 3.

Ravens 15 - Six Pax 12

League II

Moles 9 — Big Sticks 8
Roga 13 — DEEgenerates 8
AMD Bombers 4 — Cardinals 3

League III

Nuke Powers 17 — Binary Bombers 16
Dirty Sox 11 — Electric Company 9
Magnuts 14 — The Forties 12
Magnuts 18 — Binary Bombers 8
Nuke Powers 10 — Lights Out 7
Ice Pops 17 — The Forties 16

League IV

TNT (won) — Random Sample (lost)
Survivors 22 — E-Z Riders 6
Turkeys (won) — Balls & Strikes (forfeited)
Thrids 13 — Nads 12

League V

Mudville Sluggers 16 — Solar Power 9
Mole-Esters (won) — No Feedback (forfeited)
Source III vs. Who Cares
Game postponed
Source III 19 — Who's On First 7
Who Cares 12 — No Feedback 5
No Names 11 — Underalls 8

Motorcycle Club

Care to take a ride along Dune Road, amid rolling sand dunes and modern architecture? The plan is to take Dune Road from Westhampton to Shinnecock and dine at Norm's Lobster Wharf, where you can budget yourself at $2 or splurge at $16. Meet on Wednesday, August 26, at 5:15 p.m. in the Cafeteria parking lot. Come with a full tank of gas and a light jacket.

Bowling

Two teams are still needed for the Shirley league on Thursday evenings. Men and women are also needed for the leagues in Port Jeff that bowl on Tuesday. If you are interested in bowling, even as a substitute look for the recruitment booth at the Cafeteria or contact Helen Keeley, Ext. 4649, Betty Jellett, Ext. 3631, or Charlie Bohenblusch, Ext. 4758.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, as indicated below. Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1616. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent capabilities. Should have experience in the following: design of circuits using operational amplifiers and LSI digital devices; operating and trouble-shooting vacuum systems; and calibration of thermocouples, pyrometers, and pressure gauges. Will maintain, calibrate, and repair electronic, optic and mechanical instrumentation and will also construct and design small-scale instrumentation. Department of Nuclear Energy.

1617. KEYPUNCH OPERATOR (Temporary) - Requires working knowledge of keypunch operations and ability to work evening hours. Will punch and verify data cards using IBM 029 and IBM 129 equipment. Administrative Systems and Data Processing.

Autos & Auto Supplies

80 TRIUMPH - TR7, white conv., 17,000 mi, forced to sell. $7,500. J. Klein, Ext. 4018 or 298-8805.

TIRE - 6.00xS12, 4 ply polyester w/w/ tire used only as spare. $10. Fits Honda. Ken, Ext. 4421 or 744-0722.

73 VEGA GT ENGINE - parts, tires, rearend; 1966 Bronco drivetrain w/transfer case, both running. 744-3968.

78 OLDS CUTLASS SUPREME - a/c, p/b, p/s, am/fm stereo, excel cond., orig. owner. $5,500. David, Ext. 3145.

71 PONTIAC LEMANS - good cond. Call Yona, Ext. 3403 daytime or Ext. 3245 eves and wkends.

78 FORD VAN - 351 V8, 4 spd, overdrive, heavy duty susp. and electrics, am/fm stereo, carpeting. Daryl, Ext. 7696 or 878-4740.

75 JAWA CZ - 175cc, low miles, excel cond. $375 or will trade. Kevin, 281-8031.

72 MAVERICK - 4 dr, good cond. $700. J.P., Ext. 3403 or 929-8809.

70 CHEVY - sta. wgn, very good cond. $800. Ext. 3701 or 751-8128 after 6 p.m.

SERVICE MANUAL - for 1975 Olds, all series and 1975 Fisher body service manual. $10 both. Ext. 4769.

73 VW - sq. back, mechanically sound, very reliable transp., all new radial tires. $1,900. Ext. 3535.

TIRES - pair of FR78-15S for $25, located at Mobil Station.

64 CHEVY SS - white, p/s, p/b, p/w, a/c, beauty, $2,500; 1972-96 SAAB, dk. green, solid int. and ext., very good. $2,000. 281-7844.

VAN SEATS - 2 deluxe custom upholstered, like new. $150 ea. Ext. 4622 or 473-5568 after 7 p.m.

70 CHEVY - sta. wgn, a/c, p/b, p/s, radio, very good cond. $800. Ext. 3701 or 751-8128 eves.

72 PLYMOUTH SCAMP - slant 6, good cond. 589-6151 after 6 p.m.

68 FORD MANUALS - and misc. items for Fairlane. Pete, 475-0831.

74 MUSTANG GHIA - V6, a/c, stereo, 25 mpg, 70,000 mi, new radials, no rust. $2,200. Debi, Ext. 2210 or 3002.

CUSTOM PARTS - and accessories for your auto, truck, van, huge savings, quality items. Hans, 281-5563.

70 PLYMOUTH - conv., new radials, runs good, clean, $1,000; 73 Jeep Wagoneer 4x4, chrome wheels, Dune Digger tires and air shocks, low mileage, clean. $2,500. 924-3588 after 5 p.m.

78 RENAULT S - (Le Car) 4 spd, reg. gas, 40,000 mi, minor work, otherwise excel. cond. $2,300. Ext. 7927 or 878-2891.

14" FORD HUBCAPS - 14" Dodge or Plymouth rims. Morris, Ext. 4192.

71 CHEVY IMPALA PARTS - 2 dr. h.t. Ext. 3084.

75 FORD F-250 CAMPER - Special Pick-up Truck w/10½' Hornet Camper Slide-on. Self-contained, many extras. Will sell camper separately. 929-4840.

78 DODGE DART - Sport V8, high mileage, good mpg, reasonable cond. $500 offer. Ext. 3417.

TIRES - (3) G78-14, good tread, $5 ea; (2) G78-14 snow tires, excel cond. $10 ea. John, Ext. 3277.

78 MOTORCYCLE - GL1000 Gold Wing Honda, 4,000 mi, like new. $2,600. 473-8783.

80 HONDA - Twinstar Motorcycle, brand new, many extras, including helmets. $1,250. Ext. 2482.

77 HONDA - 750K, mint cond, many accessories, must sell. $1,500. 475-0867 eves.

71 VW BUS - 10,000 on engine, sunroof, steel radials, new brakes. $1,400. Rich, Ext. 2965 or 744-0960.

71 PLYMOUTH SATELLITE - hi mileage, mechanically sound. 727-0305.

SPARK PLUG WIRE SETS - 4, 6, 8 cyl., $5/set; 6' electric plow w/frame. $300. Bill S., Ext. 4434.

71 DATSUN 510 - sedan, needs work. Best offer. M. McGrath, Ext. 5371 or 472-4087 after 6 p.m.

Boats & Marine Supplies

1977 40 HP MERCURY - outboard, low hrs., runs excel, needs lower unit work. $300 or best offer. 286-0795.

16' LARSON - 65 hp, trailer, new top, steering, fuel tank, prop. mainly lake used. Asking $1,900. 475-3648.

1980 SHORELINE - galvanized E-Z Roller trailer, 2,600 lbs. gross weight Bearing Buddies. $850. Brian, Ext. 4121.

Free

KITTEN - tiger striped, litter-trained, male. Chris, Ext. 2907.

GERBILS - male pair, comical, gentle. Aquarium w/cover, food, etc., incl. Maria, 924-3756.

DOG - 10 month old German Shepherd, affectionate, loves children. Charlie, Ext. 7646.

Yard Sales

BIG YARD SALE - Aug. 21, 22 & 23rd. Contents of home, furniture, kitchenware, tools. End of Coment Rd., Rocky Pt. 744-3792.

MOVING SALE - Sat. Aug. 22nd. B&W TV, sofa, snow tires, clothes. Apt. 43/B at BNL. Yona, Ext. 3403/3245.

THREE FAMILY YARD SALE - Aug. 22 & 23rd. 9 a.m. to 4 p.m., 109 William St., Pt. Jeff Village.

YARD SALE - Aug. 22nd, corner Kale & University Rds. Rocky Point.

GROUP YARD SALE - Aug. 22nd, 8 a.m. to 4 p.m., 127 North Country Rd., Pt. Jeff.

Miscellaneous

SCREENHOUSE - 12 ft. diam. $150; folding ping pong table, $25. 265-0501.

1930's BEDROOM SET - rounded corner style, double bed, 4 dr. chest, 3 dr. chest w/blue glass & beveled mirror. 928-8224.

SOFA - Traditional tufted back (2) matching chairs, v.g. cond. $160. 744-3792.

RANGE - GE electric 30", excel. $150; 5' white steel tub, $35; double hung windows w/storm screens, misc. sizes. David, Ext. 3576 or 286-8229.

GOLF CLUBS - lefty Jack Nicklaus Dorado woods 1, 3, 4. $60. Mike, Ext. 4728.

DINING ROOM - china closet, buffet table w/3 leafs and pads, 6 chairs. $400. 981-4419.

CONSOLE PIANO - and bench, beautiful pecan wood, excel cond. Orig. $1600. Asking $950. 286-2221.

BARBEQUE GRILL - new $25; picnic table, $10; garden rake, $5. Ext. 2022.

CAMERAS - Petri 35mm rangefinder, polaroid Model 210, Bell & Howell 8mm movie camera, Kodak MZ movie. Ext. 4769.

FREEZER - 23 cu. ft. mint cond, used 1 season. $400. G. Ince, Ext. 3786 or 286-2889.

GLASS FIREPLACE DOORS - w/mesh screen, brass, excel cond. Fits 28-31"Hx40-43"W fireplace openings. $30. Bob, Ext. 4551.

RECEIVER - Bang and Olufsen 3000-2. $200. Ext. 4318 or 369-2272.

LADIES BOOTS - genuine leather, size 8, stacked 2" heel, excel cond. $30. Lisa, 289-0413.

PUMP - 3/4 HP Hayward pool or other use. Like new. $50. Ron, Ext. 7101 or 289-1003.

CASTRO CONV. - hassock. $40. 744-9822 after 6 p.m.

POTTERS KICK WHEEL - oak frame, accessories incl. $150. takes it. Carol, 698-5555 or 289-3917 eves.

STANDARD POODLE - 6 months old, white male, excel disposition. $75. Ext. 5152 or 281-2471.

HI-RISER - and studio couch w/slip covert, each sleeps 2, $100. ea; old butterpress table converted to coffee/cocktail height, stained dark. $100. Claire, Ext. 3356 or 286-8234.

TYPEWRITER - antique, Remington Model 10, manual, 1940's era, excel cond, works; French bks. & texts, 13 different. Dennis, Ext. 4259 pr 736-2534 eves.

MINIBIKE - new (1 month) Tecumpsa engine, v.g. running cond, great fun. $130. 472-0706.

CHAMPION JUICER - also grates and homogenizes. Like new. $95. Ext. 4240 or 286-0295.

BEDROOM SET - lightwood, double dresser, mirror, chest, (2) night tables, boxspring, headboard, footboard, mattress. Good cond. $160. Ext. 2050.

SECURITY SYSTEMS - Residential, fire, burglar, all types at discounts. 286-8330.

BEDROOM SET - triple dresser armoire, 2 night tables, 2 mirrors, beautiful headboard. $400. 473-0219.

VITERMASTER - exercise bike, mint cond. Sacrifice. $60. 588-1754 after 6 p.m.

WATER HEATER - Rheem propane energy miser. 30 gal. 6 months old. $90. 929-4840.

GENERATOR HOME STAND-BY - new 5000 watt Kohler 110/220, $995; new 3500 watt Kohler 110/220 Generator Home stand-by, elect. start. $795. 757-2760.

QUARTZ HEATER - excel. Thermo-Tech, new. Half price. Ext. 4881.

REFRIG - GE 18 cu. ft. side by side, avocado, 4 yrs. old, perfect cond. Ext. 4959.

BICYCLE - girl's Ross Trimatic, 3 spd, compact 26" w/Coaster brakes and hand brake. $85. Jack, Ext. 7942.

AM/FM - 8 track deck, like new, $40. 399-4213 between 6 and 7 p.m.

TV - GE B&W 19" portable, wood table on casters included. $75. 6 months old. 924-8298 after 6 p.m.

SLIDING GLASS DOORS - 6 ft. (patio). Best offer. Ext. 3460 or 924-5422.

SCHICK - Hot lather machines w/refill, new $7. ea. John, Ext. 4126 or 399-2434.

10" RADIAL ARM SAW - Sears #2310C, still in box, never used. Asking $300. 751-6784.

RUG - off white 9x11. Asking $50. or best offer. Anand, Ext. 2117 or 928-5529 eves.

KITCHEN SET - formica, 2 tabletops; electric winch 7000 lb. capacity, new. $200. Joe, 981-1692.

BICYCLE - boy's 20", good cond. $20. Ext. 4164.

CHANDELIERS - many; bath vanity; kitchen set; lawn sweep; 24' round pool; Buffet. Jake, Ext. 4532.

MOTOCROSS BOOTS - $30; helmet w/visor, $15; kidney belt, $5; scott mask, $10. Ask for Rich, 878-1580.

FENCE - vinyl coated chain link, three sides 14'4"x12'6"x14'4", 4' high, 32" gate. $50. Ed, Ext. 2526.

SCOTTS - Fertilizer & lime spreader, $9; hand push lawnmower, $9.. 727-1617.

GREENWARE - nativity set, reg. $27. Now $15; Bugs bunny bookends $3. 281-0843.

REFRIG - small, for college dorm, room or apt. Formica top, counter height. Very good. $65. 286-1832.

TYPEWRITER - Royal Mercury portable, like new, $50; antique Mason/Hamlin peddle organ. 929-8642.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

MEDFORD - 10 min. from Lab, 6 room house, basement, garage, 1½ baths, unfurn. 325-0681 after 5 or Ext. 2486.

ROCKY POINT - 2 bdrm. house, alum. siding, storm fence, 1 car garage, corner Kale & University Rds. Modestly priced. Ext. 2460.

MANORVILLE - 3 bdrm ranch, 1 acre, country kit, full bsmt, 1½ baths, garage, all appliances, s/s, w/w. $41,000. Pete, Ext. 3868/4574 or 878-1225.

SHOREHAM VILLAGE - custom ranch, 3 bdrms, 2 baths, fam rm w/fp, d/r, l/r, gourmet kitchen, 2 car o/s garage, 0.8 acre, w/w throughout, new oil burner, good financing. Walk to priv. beach, tennis, club. Ext. 3064 or 821-0890 after 5:30.

MIDDLE ISLAND - 3 bdrm ranch, 2 full baths, l/r, eik, den, bsmt, covered patio, excel, many extras. $55,000. 924-6354.

POQUOT - West side, ranch, ½ acre, mint cond, 3 bdrms, 2 baths, fp, patio, 200' to village beach, boating. $86,000 owner. Ext. 2959 or 751-0023 Lois.

YAPHANK - Townhouse 2 miles from BNL, l/r, dinette, kit, 2 bdrms, 1½ baths, bsmt, all appliances. Swiming & tennis. 924-8842.

RIVERHEAD AREA - mobile home 10x50, 1 bdrm, stove, refrig, washer/dryer, tool shed, covered patio, air cond. Ext. 3138.

For Rent

WADING RIVER - 4 rm bungalow on lg. wooded lot, beautiful neighborhood, 1 yr. lease. $275/mo; also very private, furn. studio apt., in lovely section near Sound, kit., bath, lg. studio rm, outdoor terrace. $275/mo. util. inc. No lease required. 929-4201.

NORTH PATCHOGUE - air cond, 2½ rm. apt. priv. entr, 11 miles form Lab., furnished, cablevision TV. $290/mo. pays all. single only, no pets. Carol, 289-3917 after 5:30 p.m.

WATERFRONT WADING RIVER - Cliff house, Rustic, charming, sleeping loft, stone fp, 4 appliances, furn. or unfurn. Sept. 7th thru June. $325/mo. 929-8165.

BERKSHIRES CHALET - 3 hrs. from NYC: 3 bdrms, 2 baths, fully equipped kit, elect. heat, deck w/spectacular view, near lake, hiking trails, near ski areas. 929-6946 after 6 p.m.

WADING RIVER - 3 bdrm house, l/r with fp, enclosed porch, vegetable garden, large lot. 929-4201.

MASTIC BEACH - 3 bdrm ranch, furn., lots of trees, heavily insulated, full basement. $450/mo. + utilities, 1yr. lease. George, Ext. 2275 or 3714, or 399-5275.

YAPHANK - Studio apt., priv. ent., all utilities, 15 min. from Lab., avail. Sept. 1. $300/mo., 2 mo. security. 924-6021.

Wanted

FENDER - left, front & (2) tires for VW Bug. Also rim (11x15) for jeep. Toni, Ext. 2907

APARTMENT - Selden/Terryville/Pt. Jeff areas for female Senior Citizen, 3 rooms from $250 to $275. range. Call 732-6137 anytime.

BOX SPRING - twin bed, reasonable. Paul, Ext. 4665 or 727-4859.

ROOMMATE - 3 bdrm. apt. 7 miles from Lab, Setp. 1st. $150/mo plus util. Call Bob, 924-3920.

HOME - for 3 affectionate, neutered cats, black-/white, gray/white and black. Kathy, Ext. 4615.

5-10 H.P. OUTBOARD ENGINE - repairable or running, reasonable please. Bill Sanchez, Ext. 3848.

1974 FORD - 4 cyl, 2300 cc engine or newer. Reasonable. Tony, Ext. 2023.

SKIS - & other ski equipment for intermediate skier: VHF Hi-Lo antenna, all reasonable priced. John, Ext. 3292 or 286-1348.

SINGLE AMBITIOUS PERSON - for business development, part time. Call 732-6647 for appointment.

OLD DOLLS - and related articles. GR5-4199.

WHEELS - (2) for Biltrite baby carriage, Dennis, Ext. 4259 or 736-2534.

SCUBA - tank, regulator, back-pack. Bob Wieser, Ext. 3080.

TABLE SAW - 10" or 12" commercial enclosed bottom side extensions, complete assemble. 878-8967 after 6 p.m.

CAMPING EQUIPMENT - Ext. 3636 or 369-2151.

GAS STOVE - 727-4109.

ELECTRIC TYPEWRITER - reasonable, in very good cond, newer model if possible, for student. Jan, Ext. 7589 or 698-2537 eves.

SMALL APT. - young woman seeking small apt. near Lab. Sherie, Ext. 4478.

GOLF CLUBS - men's/women's starter set. J. Adams, Ext. 4528 or 732-5641.

SCRABBLE PLAYER(S) - easy going, Bellport area. 286-1339.

EVINRUDE PROP - 13x19. Ext. 5221.

RIDERS TO BOSTON - leaving Friday Aug. 28 or Sept. 5. After work returning Sun/Mon. Anand, Ext. 2117.

BICYCLES - and bicycle parts, any kind, any cond. Free or cheap. Alan, Ext. 2928 or 821-0761.

CANNING PRESSURE COOKER - good working cond. 727-1617.

Car Pools

EAST ISLIP - need 1 driver for existing 3 man car pool. Pete, Ext. 7627 or 581-1773.

MILLER PLACE/SOUND BEACH AREA - existing car pool needs more members. Ext. 4959.

Lost & Found

LOST - sunglasses at Barclays Bank. Call Phil at Ext. 2331.

Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by the *Bulletin*.

HOUSE PAINTING - interior/exterior, professional, quality materials, insured. Call Bob, 289-7657 after 6 p.m.

SANDBLASTING - any kind equipment. Headers, chassis, car parts, boxes, trailers, tanks, etc. Reasonable rates. 744-3968.

ASPHALT PAVING - and sealing. Bob, 475-4382.

PATCH WORKS - mending, remodeling clothing, repairs. 924-3226.

RIDING LESSONS - beginners thru advanced, also dressage. Semi & private. $10/hr. Your home or in Yaphank. Renee, 924-6992.

FRENCH GOURMET COOKING CLASS - new start. Day & eves. $12/class at min. of 3. Julia, Ext. 4253 or 928-4926.

BABYSITTING - will babysit your child in my home. Lunch, references. 289-4338.

FRESH CLAMS - any size or order only. $1.75/doz. Ken, Ext. 5042.

ASSAMESE - speaking individual. Contact Dennis, Ext. 4259.

BABYSITTING - reliable mother w/playmate, wkdays, my home, any age, Coram area. Joan, 732-1610.

PAINTING - household work, repairs, painting & renovations, very reasonable, good references. 929-4180 before 10 p.m.

KAYAK LESSONS - equipment supplied, eves., wkends, also cruising, wildlife tours. $50.00 (5) 1½ hr. lessons. Ernie, 281-7873.

FIRESIDE CHIMNEY SWEEPS - fireplaces, wood coal & oil flues, only $30. through August 31. Insured. Bill, 584-6425.

CHILD CARE - any age, my home, reasonable rates, meals, playmate, fenced yard. 862-6650 eves.

HOUSESITTER - reliable, available after Aug. 24, any period, no charge. J. Allentuck, Ext. 2412.

EXTERMINATING - fleas, termites, etc. 399-0523.

Classified Ad Policy

Deadline is 4:30 p.m. Friday for publication Friday of the following week.

1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser's property.
3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
4. Ads for the sale or trade of firearms will not be accepted.
5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated. One ad per person per week.
7. **Property for sale or rent cannot be accepted on this form. Special Real Estate Ad Forms are available at the office of the Brookhaven Bulletin, Building 134.**

☐ For Sale: Autos & Auto Supplies ☐ For Sale: Boats & Marine Supplies ☐ For Sale: Miscellaneous ☐ Car Pools ☐ Lost & Found ☐ Services ☐ Wanted

Please print your ad below in 15 words or less using one word per block. Include name and phone number to call.

Note: The following must be completed for your ad to appear.

NAME (Please Print)

Employee's Signature Life No. Ext.

Send to: Brookhaven Bulletin, Building 134 (Ext. 2345)

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