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Busloads of students were already at the gates at 10 a.m. when the Energy Fair was officially opened on Wednesday. Ribbon cutting ceremonies were held at the entrance to Berkner Hall with (from left) Floyd Linton, Presiding Officer of the Suffolk County Legislature; Laboratory Director George Vineyard; and Brookhaven Town Supervisor John Randolph, doing the honors. Two of the Brookhaven people who have been working round the clock, added the final touches and exhibitors readied their displays, before the doors opened to admit the first wave of the thousands of people expected to visit the Lab this week. Below the Proclamation issued by Suffolk County Executive John Klein in recognition of Brookhaven's Energy Fair.

Designing Systems Within Systems

What does a neutron spectrometer at the High Flux Beam Reactor have in common with an environmental data collection system which is located in 110 feet of water off Fire Island? They are both automatically controlled by the same computer network. But - they are not connected with each other.

The architecture of such a network was developed by the Systems Group, headed by Gerd Dimmler, in the Instrumentation Division. Dimmler puts it this way: "If one develops hardware and software equipment according to a well defined systems architecture, then all the components fit, like in a kit. One develops a device or a piece of software for one application and the design can be used later somewhere else without modification. After a while, one is able to implement extremely complex systems in a reasonably short time."

This type of architecture, in which specific functions are assigned to various computers which, in turn, communicate with each other, is called "distributed function architecture." It was developed, starting in 1972, by the Systems Group and was first used in the development of the Reactor Experiment Control Facility, a network of 12 computers controlling nine neutron spectrometers and an x-ray diffractometer at the experimental floor of the High Flux Beam Reactor. Initially, the group gambled on the assumption that computer processors and memory, the two necessary resources comprising a computer, would drastically decrease in price. Time proved them right. Thus, dozens and eventually hundreds of computers may be used in a system.

In principle, every major function an experimenter might want to implement could have its own computer processor and memory. As peripheral and large storage discs were expected to remain expensive, they would be shared between experiments, where possible. Self-contained functional nodes, each with its own processor/memory combination, were developed. (A node is a complete computer performing a specific function within a network.) Also a defined means of communication was developed



Gerd Dimmler, Head of the Systems Group, (left) and Sy Rankowitz, electrical engineer, inspect cables between a sensor assembly and the special computer on the spar buoy for the COBOLT project.

between these nodes both using standard formats either via cables, telemetry links, or by carrying the reels of computer tape by hand.

"At least three types of nodes are necessary for a complete control computer system," says Dimmler. "One type is used for program development, a second acts as an electronic file cabinet for data and program storage, and manages the use of shared peripherals. A third type of node is used for the execution of programs."

As program development nodes require expensive peripherals, there are only three such nodes at present: one at the HFBR, one at the Instrumentation Division and one at the Physics Department. A "file cabinet," in technical terms called a common

(Continued on page 2)



Proclamation

Whereas: Brookhaven National Laboratory is host to an Energy Fair on May 12 through 16, 1976.

WHEREAS: Exhibits stressing ways of conserving the nation's energy resources will be on display.

WHEREAS: New technologies in transportation and energy production and distribution will be shown.

WHEREAS: Alternate energy sources will be demonstrated.

WHEREAS: Brookhaven's varied energy research and development programs will be on display as part of its Open House on May 15 through 16, 1976.

NOW, THEREFORE, I, John V. N. Klein, as County Executive of Suffolk County, hereby proclaim the week of May 16 through 22, 1976 as "ENERGY CONSERVATION WEEK"

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the County of Suffolk to be affixed this 7th day of May, 1976.

John V. N. Klein, County Executive
County of Suffolk, New York

Open House '76

On Saturday and Sunday, only the main gate will be open. Employees on duty should arrive by 9 a.m. and use the left-hand lane. Bring your own lunch.

Inside Info

Veljko Radeka, Head of the Instrumentation Division, has been elected a Fellow of the Institute of Electrical and Electronic Engineers, Inc. This honor, the Institute's highest membership grade, was conferred on Dr. Radeka for contributions to the theory and practice of nuclear detector signal processing.

William S. Hillman, Senior Plant Physiologist, Biology Department, has been elected a Fellow of the American Association for the Advancement of Science. Dr. Hillman was cited for his research on photoperiodism, circadian rhythmicity and related effects of light on development, and for exploiting the unique experimental advantages of the Lemnaceae.



Designing Systems (Continued)

shared service node, is interconnected with the network at the HFBR. The execution nodes are the "workers" and, because they are inexpensive, many with specialized assignments are used in the network.

The distributed function architecture grew out of the group's experience with computers over the past two decades. In the late '50s, everyone rushed to use computers, in a helter-skelter fashion, without worrying too much about any kind of structure. In the early '60s, when computers were still very expensive, structures were developed where many experimenters could share one processor/memory resource. As experimenters required more and more functions, the operating system software grew very complex in scheduling time and in keeping unrelated functions from interfering with each other.

A key question, at that time, was how many and what type of functions should be implemented without making the system too cumbersome to use?

An early example of a "restricted function" shared resource control system is the Multiple Spectrometer Control System, de-

DAS, was responsible for the concept and mechanical design of the spar buoys. Jim Klein of DAS is presently responsible for the deployment of the buoys. Often Systems Group projects are closely related to other work in the Instrumentation Division, such as the development of new radiation detectors.

Besides Dimmler, the System Group includes Norwood Greenlaw, a systems engineer; Bill Hardy, a physicist; Mary Ann Kelley, a mathematician; Sy Rankowitz, an electrical engineer; and Frank Stubblefield, a physicist. Stubblefield developed the operating system software for the common shared service node.

This small innovative group is primarily concerned with process control systems, as distinct from data processing systems. Their future plans include some fairly elaborate execution nodes, one of which includes three computer processors and will be interconnected with the network at the HFBR. It will control a new type of neutron spectrometer which is being developed in collaboration with Benno Schoenborn, Biology, and the Instrumentation Division.



At the Instrumentation laboratory, Van Pfeiffer (foreground) and Joe Yelk, technicians, work on electronic sensors and on the special computer.

veloped by the Instrumentation Division. This system controlled experiments at the HFBR from 1965 to 1975, when it was replaced by the Reactor Experiment Control Facility. Several "elaborate function" control systems were developed in the late '60s at the Laboratory.

These systems had limitations, the most severe of which was that new and different functions, required by advancements in scientific experiment technology, were difficult to introduce because they often conflicted with existing functions.

Within the distributed function architecture, the Systems Group is increasingly able to expand and to build new complex systems in a relatively short time. They do not have to start from scratch. Take, for instance, the oceanography project, more formally called the Environmental Data Acquisition and Telemetry System (EDATS). The system was developed and set into operation for the COBOLT (Coastal Boundary Layer Transect) experiment conducted by the Oceanographic Division of DAS and the Woods Hole Oceanographic Institution. Because a program development node and the execution node operating systems software were already operational, it was possible to have this complete part of the network in operation within one year.

In brief, the oceanography system works this way. In a trailer next to Meteorology sits a computer, connected with telemetry equipment and an antenna. Inside each buoy, submerged in the Atlantic Ocean, is a special, low power computer, connected to an antenna, a transmitter and a receiver. On command, the ocean computer transmits to the trailer computer, through a response channel, information on temperature, salinity in the water and the speed of onshore and offshore current, which it has been accumulating and analyzing.

The Systems Group is responsible for the overall design plan of a project, as far as computer, control, electronics and measurement technology are concerned. These projects are typically performed in collaboration with other Laboratory departments. On the COBOLT project, for instance, Don Huszagh, a mechanical engineer in

BNL Lecture

"Neutrinos, Charm and Sex" will be the subject of the BNL Lecture by Robert Palmer, Physics Department, Wednesday, May 19, at 8 p.m., Berkner Hall.

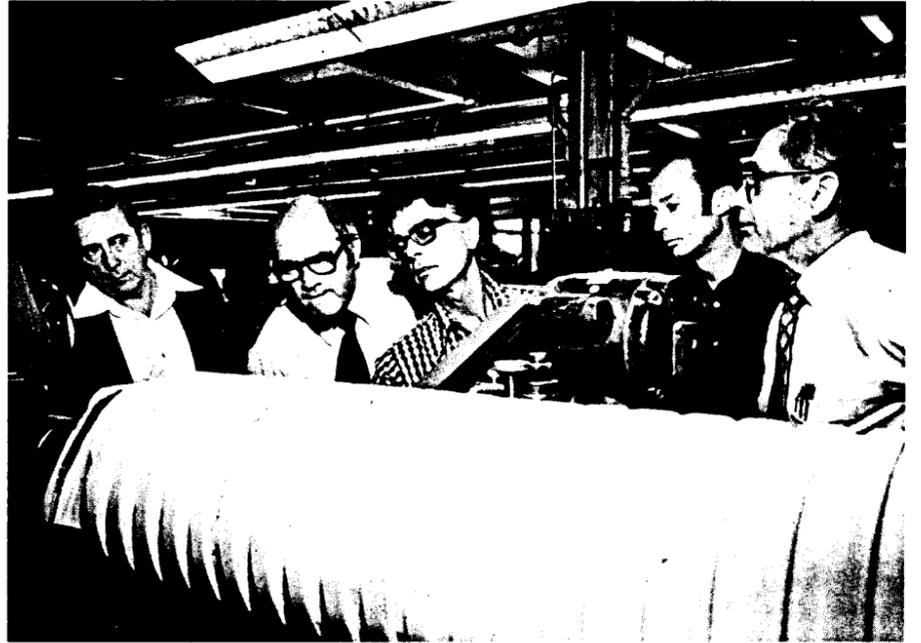
BNL French Group

A reading of contemporary French poetry will be the highlight of the next meeting of the BNL French Group on Thursday, May 20, at 8 p.m. in Room C of Berkner Hall. Dr. Pierre Chanover will discuss "La Poésie Contemporaine Française," and his readings will include some of his own poetry.

Dr. Chanover, born in Paris, came to the United States at the age of 18, and received his Ph.D. from New York University. He writes in English and French, and has had a number of poems published in both languages.

All members of the BNL community are cordially invited to attend this program. Those who are not members of *Le Cercle Français du BNL* will be asked for a contribution of \$1 to help pay for refreshments, which will be served after the lecture.

ERDA Review Committee



(From left) members of the ERDA High Energy Review Committee Robert P. McGee and William Wallenmeyer, are briefed on the ISABELLE project by Brookhaven staff members, R. Ronald Rau, Harald Hahn and David Kassner, during a two-day visit of the Committee.

In Rehearsal

"The Devil's Disciple," Bernard Shaw's witty and tense drama is now in full rehearsal at Stage II under the direction of Bill Love.

Mr. Dudgeon's will has been read and received with chagrin and surprise, Richard and Mrs. Anderson have shared a cup of tea by firelight in the minister's house, the trial for treason has been held by Major Swindon in the presence of General Burgoyne and the noose has been set over the wagon in readiness for the hanging.

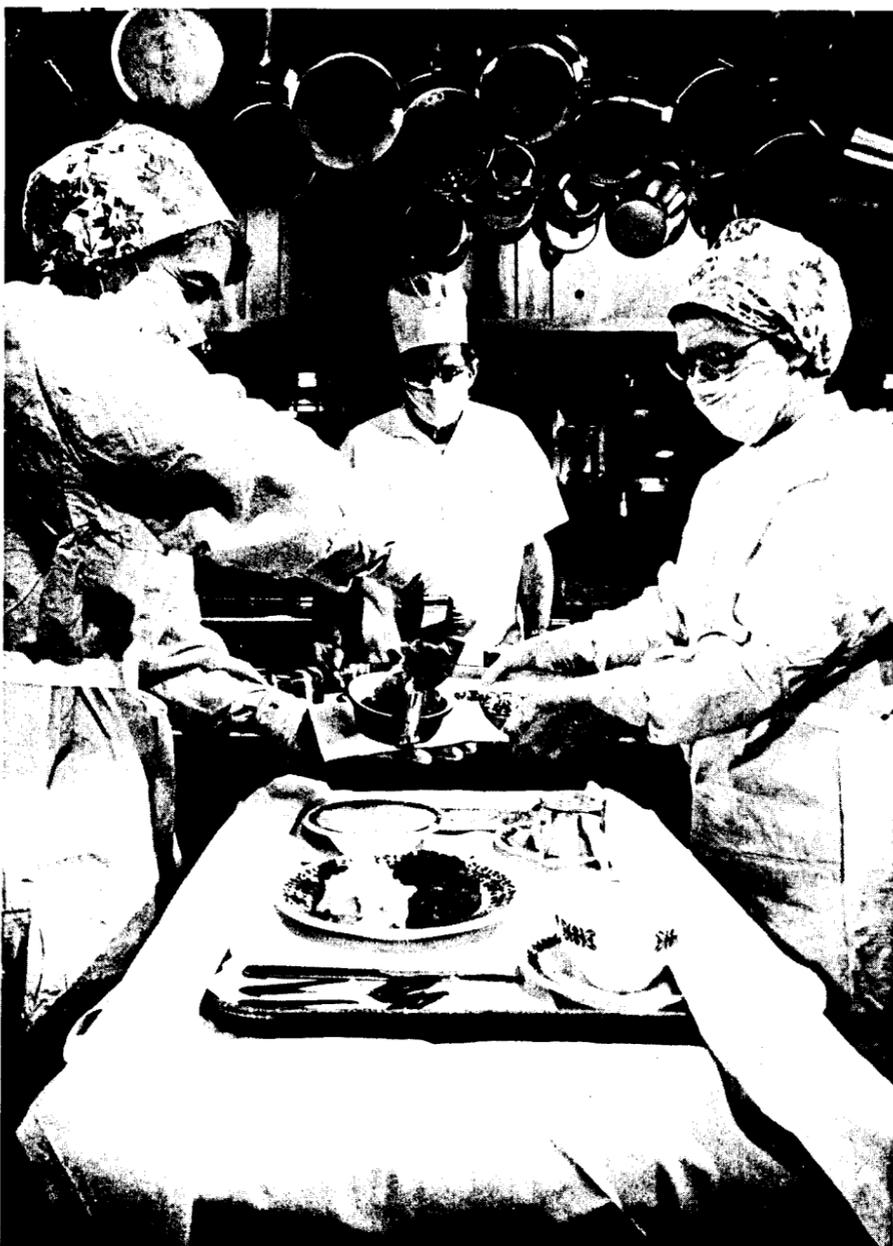
These scenes and more portray a British view of dramatic events that began at the most wretched hour between a black night and a wintry morning in the year 1777 on the outskirts of the town of Westerbridge, New Hampshire.

Shaw's ever present wit throughout the play provides a relief to what could easily be overdramatic scenes. This is one of the most rewarding productions to be offered for a Bicentennial presentation.

Tickets at \$3.00 and \$2.00 will be available soon. Curtain is at 8:30 p.m. at Stage II on May 28-29 and June 4-5.



James Sanford (center) who arrived Monday to take up his post as Associate Director with responsibility for the ISABELLE project, meets with Al McInturff (left) head of the dipole magnet group and James Stekert, a member of the ERDA High Energy Review Committee.



Dietician Norma Gillespie (left) uses forceps to transfer food cooked by chef Walter Bernatzky, with Assistant Dietician Mary Cox acting as intermediary, in sterile procedures followed for special patients.



Mary Cox (left) and Norma Gillespie without their masks.

A Germ Free Menu

When a special patient is admitted to Brookhaven's Hospital suffering from a condition such as leukemia, his resistance to germs is marginal and he is placed in sterile isolation for his own protection. His food, of course, is of prime importance and rigorous sterile procedures are followed in the kitchen.

At such times, the kitchen resembles an operating theatre. Three times a day, all but the dieticians and the chef are banished and the doors and windows are closed. The dieticians are clad in caps, masks, gowns and gloves, and the chef is masked when he delivers the cooked food.

Dishes and a tray which have been sterilized and double wrapped are placed on a cart and the team goes to work transferring the food wrapped in sterile foil to the dishes on the tray. "At this point, we work as rapidly as possible," says Dietician Norma Gillespie, "to keep the food sterile and hot. What is time consuming is the prior preparation of the food and getting everything lined up ready to go."

When the operation is complete, the cart is rushed to the pavillion and two nurses, also in sterile garb, receive the tray and serve the food to the patient.

This procedure was started here in late 1974 and has been adapted from other hospital procedures to suit the needs of the patients at Brookhaven.

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Rambling Around

These are bits and pieces picked up from here and there with occasional observations by the Editor:

• Why should anyone care to know how far flies fly? This is a problem of the kind that makes politicians mistrust scientists, who sometimes seem to be wasting taxpayers' dollars on frivolous inquiries. Perhaps scientists are partly at fault when their aims are misunderstood. A research problem may seem trivial if only its immediate but not its final goal and significance is explained.

Indeed, how far flies fly is by itself at most a mildly curious puzzle, but the problem is part of a much wider inquiry - a quest for understanding the causes of biological evolution. Of course, one may ask why we want to know the causes of evolution. The answer is that the world of life, including man, is a product of the evolutionary process. Mankind strives to comprehend where it came from, what its place is in the order of nature, and where it may be going. If understanding humankind is uninteresting, then our explanations will have reached a dead end.

—reprinted from an article "How Far Do Flies Fly?" by J.R. Powell and T. Dobzhansky in American Scientist.

• Referring to the woman who changed her name from Zimbleman to Zimblewoman, Bruce Martin of Applied Math, writes: "to be entirely consistent, it should have been, 'Zimblewoperdaughter.'" He maintains that "the 'issue' behind this is one of the most puerile non-issues of recent times. One look at any good dictionary would show that the word 'man' may be properly used in reference to a species (*Homo sapiens*) without any connotation of gender. Hence, terms such as 'chairman' are in no way 'sexist.' Besides, 'Chairer' would be preferable to Chairperson."

• Upon receiving the Harvard Lampoon's award for being "Harvard's funniest professor in 100 years," John Kenneth Galbraith tried to explain to the assembled throng why professors affect a serious air: "Gaiety, in contrast, could be thought to imply idleness. This is important because Harvard may be the only considerable community in the world, the Pentagon possibly excepted, where the effort to stimulate effort can exceed the effort. After three months' vacation in the summer, a professor takes a sabbatical leave in the autumn so that he will be rested and ready for a winter's leave of absence to work up a course on the work ethic."

— The Ragan Report

Cafeteria Menu

Week Ending May 21, 1976

Monday, May 17	
Tomato Vegetable Soup	
Keilbasy w/Sauerkraut	1.10
Grilled Ham Steak & 1 veg.	1.25
Tuesday, May 18	
Cream of Potato Soup	
Southern Fried Chicken & 1 veg.	1.10
Macaroni & Cheese & 1 veg.	1.00
Wednesday, May 19	
Beef Barley Soup	
Tuna Noodle Casserole	1.10
Special	
Cup of Soup	
Tacos & Refried Beans	
Pie or Ice Cream	
Small Beverage	\$1.68 plus tax
Thursday, May 20	
Chicken Noodle Soup	
Chili Dogs & Rice	1.00
Salisbury Steak & 1 veg.	1.05
Friday, May 21	
New England Clam Chowder	
Broiled Filet & 1 veg.	1.15
Roast Sirloin of Beef & 1 veg.	1.30

Happy Birthday America!



Ruth Dimmler, chairperson of the Hospitality Committee (second from left) was presented with a pewter bowl in recognition of her dedicated work for the Hospitality Committee over the past two years. Succeeding her are Pat McKenzie-Wilson (second from right) and Ginny Thien (far right). At left is Polly Van Horn, a former chairperson of the Committee, who presented the bowl to Mrs. Dimmler. The presentation was made during the Tea and Sherry Party held at the Center on May 6, which highlighted colonial crafts and exhibits.

— photos by Rosen

Ruth Dimmler wishes to thank all the members of the Committee who worked so hard to ensure the success of the Tea and Sherry party, and every member of the Committee wishes to extend her most sincere thanks to those who brought in their treasures for display, baked all the delicious breads, demonstrated crafts, or helped in any other way.



I.B.E.W. Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on May 27, 1976, at 8 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

Official & Special Events

- Saturday, May 15**
Open House & Energy Fair - 10 a.m. - 4 p.m.
- Sunday, May 16**
Open House & Energy Fair - 10 a.m. - 4 p.m.
- Monday, May 17**
Safety Environmental Protection Workshop (17-21)
- Tuesday, May 18**
CSWEG Meeting - Berkner Hall (18-20)
- Wednesday, May 19**
BNL Lecture - Berkner Hall - 8 p.m.
- Monday, May 24**
Chemistry Visiting Committee (24-26)
- Tuesday, May 25**
International Energy Agency Steering Committee Systems Analysis - Berkner Hall (25-26)

Arrivals & Departures

Arrivals	
John J. Barry	Applied Science
Robert C. Felton	Plant Engrg.
Roberta Phillips	Ph. & Gr. Arts
James R. Sanford	Director's Office
Albert H. Walenta	Instrumentation

Departures
NONE

Trip To New York City

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, June 2. Departure will be at 8:29 a.m. from the LIRR station in Patchogue. Note the new departure time. The round trip fare for adults is \$2.45, children under 6 years ride free. Reserve a ticket by sending your fare through the U.S. Mail to Post Office Box 322, Upton, New York, no later than May 27. Make checks payable to Cash.

A Chinese "Deem Fum" luncheon is planned for the same day in Chinatown. If you are interested in participating in this event, send your reservation and check in the same manner as above. The cost of the luncheon is \$4.50 per person.

17.76 Mile Bicentennial Run

The BNL Bicentennial Run was held Sunday, May 9, under sunny skies with a record number of runners (70) participating. There were six "relay" teams which were composed of BERA members only and their families. Each team was assigned a handicap factor based on past performances of each member. Two runners from a team were assigned to each leg (i.e., 10, 5 and 2.76 mile).

The winner of the relay was Team A captained by Bob Tucker.

The overall winner in the 2.76 mile run was John Millener (Phys.) who also was the first BNL male finisher. The first BNL female at this distance was Jean Burt (DAS).

In the 5 mile run, David Levine, son of Mel Levine (DAS) led the way with an outstanding performance, with Jim Guppy (DAS) being the first male BNL'er to cross the finish line. In the female division for this distance, congratulations are in order for Frances Caruso (AMD) and Karen Popp both of whom after competing in the New York mini-marathon on Saturday returned on Sunday to participate in the BNL run.

In the 10 mile race, repeat performances for the first three places were turned in by Larry Farrell, son of Harry Farrell (AGS) followed closely by Martin Brekeller (open) and Gus Prince (DAS) who was the first BNL'er to finish.

In recognition of Mother's Day, prizes were given to the first mother to finish in each of the categories; Margaret Hubdell (open), Jean Burt (DAS), Ann Nauman (Bio.) and Eveline Serles (open). A special prize also went to Gail Waite (DAS) who ran in the 10 mile run after running the course the previous day just to see if she could finish. Her award was an exercise kit.

Awards will be given to the winners under the BERA rules and regulations, and certificates to all finishers.

Special thanks to Bob Powell, meet director, along with Mrs. Jerry Kinne and daughter Marsha (Jerry decided to "sit" this one out and run), Mr. & Mrs. Oldham, Ralph Fairchild, Walt Brooks, Mrs. Thomlinson and Charlie Bircham, who provided their services in the registration, time-keeping and all the other chores necessary for the success of this event.

The runners also extend their appreciation to Security for their concerted efforts in directing traffic, clearing the barriers for the courses and to Captain Eichler for "sweeping" the courses to make certain that all runners returned safely.

It goes without saying that the run was a successful one and since BNL provides one of the three major road races in Suffolk County, no energy crisis is expected here.

Detailed results of the races to follow in next week's Bulletin.

Volleyball

Joe Mead

Final Standings

Mixed League		
Trolls	Won 55	Lost 8
Terabits	53	10
Diamonds	36	27
Nuts & Bolts	34	29
Set Ups	31	32
Spikers	23	40
Medicine Ballers	11	52
High Balls	9	54
Men's League		
Spikers	26	4
Cool Tools	21	9
Atom Spikers	15	15
Easy Aces	11	19
Circuits	9	21
Busters	8	22

The Cool Tools are the league winners. First half winners played the Spikers, second half champs, and won the first two games 21-18 and 21-19.

The championship could have gone either way but tremendous effort by Lou Snead, Dave Miller and Ray Atkins was overpowering. Greg Donaldson and Jerry Levine deserve credit for a great effort in refereeing. Congratulations Cool Tools, watch out next year!

Trophies and participation cards will be awarded at the annual bash to be held on Friday, June 11, at the ball park - weather permitting. If weather is doubtful, the party will be at the Recreation Building.

Classified Advertisements

Placement Notices

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice, or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, extension 2874 or 2882.

96. NUCLEAR REACTOR OPERATOR - Seeking experienced reactor operator with sound knowledge of mechanical technology. AAS degree or equivalent with navy reactor experience desirable. Rotating shifts. Reactor Division.

97. MESSENGER - Temporary position. Application deadline: May 25, 1976. Staff Services Division.

98. EMPLOYMENT REPRESENTATIVES - One full-time and one part-time position. Seeking versatile and resourceful individuals with 4-6 years' diversified experience in personnel placement. Background should include a Bachelor's Degree or equivalent with emphasis in oral and written communications and human relations. A demonstrable record of achievement in the total recruitment process including responsibility for the evaluation and selection of professional engineering, scientific, administrative, and technical support personnel is required. Personnel Division.

99. BUILDINGS & GROUNDS UTILITY WORKER - Application deadline: May 19, 1976. Plant Engineering Division.

100. MASTER METAL WORKER, GROUP LEADER - Application deadline: May 19, 1976. Plant Engineering Division.

101. LABORATORY CUSTODIAN, GROUP LEADER - Application deadline: May 21, 1976. Plant Engineering Division.

Autos & Auto Supplies

72 DATSUN 1200 - Orange, radial tires. \$1200. Ext. 2345, 928-2437/928-8044.

73 GRAN TORINO - Ps/pb/ac, auto vinyl roof, beautiful cond, quick sale needed. \$2300. Ext. 4388, 345-3214 eves.

68 FORD TORINO - 46,000 mi, 2 dr, auto, ps. \$700. 472-3309.

70 TOYOTA PICK UP - 26,000 mi, very good cond. \$1500. 472-3309.

72 DATSUN - Sport coupe, dark blue, 4 cyl, auto, 23-30 mpg, new radials & brakes, radio, tinted glass, recl bucket seats, fold down rear seat. \$1400. 475-8139 after 5.

2 STUDED SNOW TIRES - For Duster, if you give \$10 to Amer Cancer Soc. Steve, Ext. 4065, 234-7419.

64 OLDS - 4 dr hdt, ps/pb, Dynamic 88, clean interior, hydromatic, good running cond. \$350. 543-4842.

73 VW BEETLE - Red, stick, 20,000 mi, orig owner. \$2100. Frank, 727-5527.

67 OLDS - Delta Custom, ac/pb/ps, p/windows, seats, antenna, vinyl top, radio, rear springs. \$700. 249-8382.

68 RAMBLER AMERICAN - 4 dr sedan, good cond. \$390. Bob, 744-7170.

74 HONDA - XL 70, street & dirt, top cond. \$350. Bob, 744-7170.

71 CHEVY MALIBU - 6 cyl, 2 dr hdt, auto, ps, new muffler & brakes. \$1600. Liz, Ext. 3940, 584-5216 after 6.

75 YAMAHA RD 350 - Crash bars, sissy bar w/storage, fear rack, excel cond, low mi, \$1200. Ext. 4702, 286-8586.

CARBURETOR CATALYST - 2 barrel. \$5. Frank, Ext. 4581.

68 PONTIAC FIREBIRD - 3 spd, floor shift, ps, good cond. \$550. Steve, Ext. 4679, 929-4787.

75 YAMAHA 100 - Rear rack, very low mi, excel cond. \$700. Ext. 4702, 286-8586.

74 CAMARO - 6 cyl, auto trans, excel cond. \$2900. 979-0237.

74 JAWA - 90 cc, road & trail, 3000 mi, clean. Asking \$230, must sell. John Guthy, 929-8287.

64 BEL AIR - 4 dr, 230 eng, 6 cyl, auto. \$175. 289-2266 after 5:30.

70 MERCURY MONTEGO - 302 V8, pb/ps, ac, auto, auto, rear air hsocks, 2000 class B hitch, elec hook up, tires. \$1200. 588-5688.

68 CHEVY CAPRICE - 327 V8, 2 dr sedan, ps/pb, ac, 8 track stereo, excel cond. Agrawal, 928-6032.

68 VOLVO - 142S, 2 dr sedan, am/fm stereo, new exhaust system, brakes, good cond. Agrawal, 928-6032.

65 PLYMOUTH SATELLITE - New brakes, 6 new tires, excel cond. \$650. 928-7591.

66 CHECKER - Marathon, tuned, new tires. Ext. 3688.

69 FORD GALAXIE - 302 V8, ps/pb, 88,000 mi. Hans, Ext. 3583, 744-4305 eves.

75 HONDA XL 125 - Road & trail bike, 562 mi, very clean. \$500. Bob, Ext. 4764.

73 HONDA - 350 road bike, helmet, bookrack & bike carrier incl. \$600. Richie, 924-6133 after 4.

74 DATSUN - 260Z, red, new tires, excel cond. Adam, Ext. 3241 eves.

69 DATSUN - 4 dr sedan, auto, clean, good cond, econ trans, belted tires, extras. \$1200. 281-5532, after 6.

68 VW - Tan, very good cond, 53,000 mi, new battery, front bearings, aligned recently, new carb. Asking \$800. Joe Mead, Ext. 4255.

66 CHEVY CONVERTIBLE - 283 V8, stick shift, 2 new tires, good running cond. \$295. 924-3082.

73 KAWASAKI - 100 cc, mint cond, new tires. \$375. 924-3082.

75 EL CAMINO - SS, am/fm, posi rear, 350 auto, w/radials, vinyl top, vinyl bed cover, excel cond. \$4200. 399-0828.

75 FORD PICK UP - 3/4 ton, 4x4, automatic, V8, am/fm stereo, tape, many extras, low mi, must sell. Ext. 4068, 298-5092.

74 DATSUN 610 - 4 dr sedan, ac, am/fm, reclining bucket seats, 110 hp, new steel radials, excel cond, must sell. \$3250. 744-2404.

66 PLYMOUTH - Wagon, high mi, many new parts, ps/pb, auto trans, new tires. \$200. Steve, Ext. 4308.

RIMS - (2) 15" VW, \$5; (2) 14" Ford, \$4; (2) 13", \$3. O. Booker, Ext. 4719.

69 AUSTIN AMERICAN - 25,000 mi, new tires, new transmission, dark green, black leather interior. Asking \$600. 758-9633 after 5.

Boats & Marine Supplies

19' LIGHTNING - 6616, new sails, spinnaker, extras. \$800. 727-7387 after 6.

68 LUHRS - Sports fisherman, 26', many extras. 727-2403.

MOORING - 2, 100 lb mushrooms, 40' of 3/4" chain, Ext. 2604, 473-2473.

72 MFG FISHERMAN - & 18 hp Evinrude. \$500. 281-6325 after 5.

8' PRAM - Fiberglass over plywood, oarlocks, rub rail, towing eye. Ext. 4121.

16' WINDMILL SLOOP - Fully equipped, sails, perfect cond w/trailer. John MacEvoy, 924-8283/4 days, 929-4377 eves.

34' BALTZER - 1953, twin Chrysler crown eng, camper back, excel family or fishing boat. \$3700. 331-1718.

BOAT & TRAILER - Wheels, fenders, pair \$6. Ext. 2485.

Miscellaneous

STEREO - Sears Silvertone am/fm stereo radio, phonograph, contemporary cabinet. \$65. Ext. 2456.

ST BERNARD PUPPIES - AKC reg, ready for good homes. 283-8510.

SLEEPING BAG - Girl Scout type, excel cond. Bob, 732-9517.

BABY ITEMS - Play pen, car seat, swing set, good cond. Bob, 732-9517.

DINING RM SET - 9 pcs, contemporary style, light birch, all wood, Heywood Wakefield. \$290. 744-2821.

PHOTO EQUIPMENT - Photo floodlamp, 650 watts, sealed beam, \$5; Kodak Hawkeye camera w/flash, \$5. 732-5829.

FREE - Combination sink & dishwasher. M. Greene, Ext. 4484.

MOTHER'S DAY PLANTS - Azaleas, hanging baskets, mums, etc. 281-1364.

DINING ROOM SET - French provincial, excel cond. 744-0217.

FURNITURE - (3) dressers, (2) 3 drawer & (1) 4 drawer w/mirrors; rocking chair, tables, chairs, beds in all sizes w/regular bed springs & mattresses, very reasonable. Charley, 281-5385.

SENCORE COLOR BAR GEN - Battery operated, \$50; regaussing coil, \$10; telematic tuner sub, \$48, extension cables for b/w & color TV all \$15. Jack Dunn, Ext. 4581.

COMMUNICATIONS RECEIVER - Helecraft S120, to 30 MHz, BFO, \$35; Zenith 21" b/w TV portable w/stand, \$50. Jack Dunn, Ext. 4581.

DOG HOUSE - Large, 52x52x56", chain link gate for driveway, come & get it. Ext. 3369.

BABY CRIB - Good cond. 399-0307.

YOUTH BED - Like new, excel cond w/rails. 399-0307.

TRANSMITTER - DX-60 w/HG 10 VFO, mike, code key, dummy load, ant relay & manuals. \$100. Don, Ext. 4551, 281-3093.

ORGAN - Wurliizer Centura model 805, walnut console w/leslie speakers, built-in cassette recorder/player, 3 keyboards w/electronic synthesizer, many extras, superb cond. \$3600 firm. Denise, Ext. 2926, 585-9816.

SWIMMING POOL - 15'x42", brand new, still in boxes, incl ladder, filter, skimmer, cover, liner. \$400. 281-1983 after 5.

DINING SET - Contemporary walnut, Keller, 60" table w/12" leaf, 4 chairs, 60" buffet, excel cond. \$300. Judy Ridgeway, Ext. 2452, 473-1154.

BICYCLES - Girls 26", AMF Roadmaster, \$30; Boys 26", 2-speed Schwinn, good cond, \$35. Chester R. Davis, Ext. 4089, 473-1816.

ROMEX - 10-3 - 45', \$10; Marine Corp bolo machete, \$5. Frank, Ext. 4581.

LIGHT FIXTURES - Pulldown, \$3 & \$4 each; brown & blue jeans, 34-32, \$5 each; spring coat, size 14, \$8. 744-5871.

ROCKER - Pine Colonial platform rocker, green, gold & red tweed cushions. \$75 or best offer. Ellen, Ext. 3747 after 4.

CLARINET - Bundy, w/Selmar case, good cond. \$50. Ext. 2957.

SPEAKERS - Pair of KLH-5 3-way hi-fi bookshelf speakers, 26x13 1/2x11 1/2, excel shape, oiled walnut. M. Perlman, 472-1174.

TRAVEL TRAILER - 19' Taurus, sleeps 6, self-contained, 6 cu ft refig, 4 burner stove, separate bathroom w/stall shower, brand new. Asking \$3800. Ellie, Ext. 2978, 369-2526 eves.

AMPLIFIER - Sony TA1130 int, 50w chnl & ST5130 tuner, \$450; Dual 1229 auto turntable, pickering XV15/750 cartridge, base, dustcover, \$125. 924-5018 eves.

HOSTA FUNKIA - Healthy clumps, reasonable. Irene, Ext. 3725, 589-6468 after 5.

CAMERA - Exakta VX1000, 35 mm w/35 mc, 50, 60-135 200m, 85-205 200m, 400 tele lens. \$360. Meyer, Ext. 3038, 929-4326.

FREE - 2 1/2-3 yr old Gordon setter, black w/red points, has papers, good watchdog, good w/family. Tony, Ext. 3254, 727-3351 after 6.

IRISH SETTER - 1 yr old, male. \$50. 281-7230.

TENT - Attaches to van or free stands, \$100; dog house, very large, suitable for great dane, shepherd, etc. \$75. 473-9180.

TV - 25" color, Heathkit. \$65. 475-7537 after 5.

3 PIECE SECTIONAL - Matching chair, turquoise scotchguard upholstery, 3 walnut tables, good cond. \$135 takes all. 588-7989.

BICYCLE - Girl's Raleigh chopper, seldom used, like new. \$80. Bob, Ext. 4637, 692-8659.

ALUMINUM SCREENS - For triple track storm windows, (3) 25 1/2"x29 1/2", (2) 25 1/2"x21 1/2", (1) 25 1/2"x37 1/2", (1) 17 1/2"x29 1/2", (5) 21 1/2"x29 1/2". Ext. 2113.

TICKETS - 2 seats for Lincoln Center production of Three Penny Opera, Sat matinee, May 22. \$16 for both. Mary, Ext. 2345, 744-6288.

PIONEER SX - 1010 receiver SR 810QX turntable. Dennis Turner, 924-3283/4, 744-4055.

REFRIGERATOR - Apt size, copper, like new. Cost \$170, will sell for \$85. 289-2420 after 5:30.

POOL CIRCULATOR - 1/4 hp motor. \$10. M. Tesla, Ext. 3284.

TRAVEL TRAILER - '70 Continental, 22', tandem axle, sleeps 6, full bath. Asking \$3500. 281-3149.

WASHING MACHINE - Westinghouse, 18 lb, white, 6 mos old, excel cond. \$150. 289-2420 after 5:30.

BICYCLE - Mans 27", 10-speed, luggage rack, mirror, excel cond. \$85. 289-2420 after 5:30.

MOTHER'S DAY GIFTS - Amer Indian jewelry, sterling & turquoise rings, bracelets, earrings, necklaces, all authentic Indian made. Marie, 588-5586.

ELECTRIC ROLLERS - Clairol, large set, excel cond, \$8; waffle iron, good cond, \$6; elec coffee pot, 10 cup, excel cond, \$5; deep fry, good cond, \$5; cranberry rake magazine rack, maple, \$3. Ann, Ext. 3143.

VINYL JACKET - Ladies w/belt, size 13-14, new, tan, cost \$39.95, sell \$20; mature womans all leather dress handbag, brown, used once, \$10. Ann, Ext. 3143.

LUGGAGE - Mens 26" suitcase, luggage tan, good cond, \$6; 26" ladies suitcase & matching cosmetic case, turquoise, good cond, \$12. Ann, Ext. 3143.

BUILDING BLOCKS - 14 at 15¢ each; used bricks, 150 at 7¢ each; (2) 2x6's, 22', 20¢/ft; 2x10's (1) 8' at 32¢/ft, (2) 13' at 32¢/ft; 2x8's (2) 6' at 23¢/ft, (1) 14' at 23¢/ft. Jim, 472-0136.

VENETIAN BLINDS - White, 26", 30", 52". \$1.50 ea; metal desk, formica top w/matching vinyl covered chair, excel cond, \$22. Jim, 472-0136.

RUG - Black & white shag, 35 sq yds, main piece 13'x20', 5 yrs old. \$50. Ext. 3510.

Ads left out of this issue because of lack of space need not be re-submitted in order to run in next week's issue

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

SWAP - House for house in North Shore or East of Centereach, price range \$32,000 - \$34,000 ranch or cape. B. Sanchez, Ext. 3354, 732-5197, eves.

PORT JEFFERSON - 3 bedrm ranch, 1 1/2 bath, garage under, fireplace, 1/2 acre wooded. 473-7750 after 5.

RIDGE - Levitt Strathmore duplex townhouse, 2 bedrm, 1 1/2 baths, 5 appl. 924-4070, Ext. 3541.

160 ACRES - Cooperstown area, 1/2 tillable, secluded, all or part. Ext. 3688, 363-7032.

WADING RIVER - 3 bedrm ranch, completely paneled, all appl, finished basement. Helen, Ext. 3415.

WADING RIVER - Nr Sound, deeded beach rights, 2 bedrm ranch, fireplace, taxes \$988/yr. 929-6465.

CUTCHOGUE - 1 acre building lot, water view, beach rights. Must sell \$14,500. Ext. 4068, 298-5092.

PATCHOGUE VILLAGE - 3 bedrm ranch, expansion attic, finished basement, country kitchen, exterior maintenance free. \$34,000. 475-7694, Ext. 2290.

EAST MORICHES - 150 yr old renovated school house, 3 bedrm, 1 1/2 baths, huge double lined cabinet kitchen, 1 acre, garage w/loft, walk to water. \$45,000. 878-4184.

ROCKY POINT - 4 bedrm colonial, Pickwick section, deeded beach rights, north of 25A low 40's. 928-2954 after 6.

1 ACRE POCONOS - Water, elec, horseback riding, skiing, swimming, tennis, priv community, gate guard. 732-3003. Ext. 3870.

RIDGE/LAKE PANAMOKA - 3 bedrm ranch, basement, sun deck, wooded lot, lake rights. \$33,000. Ext. 4308, 727-9334.

SETAUKET - 4 bedrm, 2 bath ranch, fireplace, skylight, full basement, brick patio, heavily wooded. 751-7416.

HOLBROOK - 3 rm house on double plot, detached 2-car garage. 732-8241.

ROCKY POINT - Deeded beach rights, 4 bedrm, 2 1/2 baths, split colonial, ac, carpeted, landscaped, low 40's. 928-2954.

FARMINGVILLE - 3 bedrm, split level, excel cond, in-ground pool, finished basement, all appl, w/w carpeting. Asking \$45,000. 698-9564.

SHIRLEY - 4 yr old ranch, 4 bedrm, basement. \$33,000. 281-3721.

FLORIDA - Royal Palm Beach, 1 acre plot on corner of street & canal, water, curbing, etc, completed, taxes \$49/yr. \$4000 over balance \$2050 plus interest. S. Browell 727-6833.

HANDYMAN SPECIAL - 2 story mother/daughter, beautiful property, wooded, must be sold & will be sold, needs painting & little repairs. Charley, 281-5385.

SHIRLEY - 2 bedrm, full basement, secluded dead end, near bay on park. \$550 taxes. \$28,500. 281-1546.

For Rent

PUERTO RICO - Penthouse, 1 hr from San Juan, shore-front, sleeps 6, 2 bedrm, 2 baths, take advantage of off-season rates. Ext. 3482.

SHOREHAM - Month of August, 4 bedrm house, 1 acre, beach. Watts, 744-5926.

BELLPORT VILLAGE - 3 bedrm furnished, 200 yds from bay, 1 yr lease. Avail July 1. Ext. 4122, 4132.

SHOREHAM - End June - Labor Day, large hi ranch, private beach, see to appreciate. 744-2514.

PATCHOGUE - Furnished house for summer rental, starting June 27. Ext. 4339, 475-4005.

FURNISHED ROOM - Patchogue village, private home, congenial mature woman. 475-2627 after 6.

ROCKY POINT - 1 bedrm house. 744-9734

ROCKY POINT - 2 bedrm house. 744-9734.

HAUPPAUGE - 1 bedrm garden apt, unfurn, 25 min to Lab, 2 options, 1 yr lease, \$265/month or June-Nov \$240/month. Incl heat. S. Moore, Ext. 4065, 234-7419 after 6.

WADING RIVER - 3 bedrm house, garage, \$225 plus util. 929-6976 eves.

VACATION IN VERMONT - House w/deck, garage, all conveniences, \$120/week. 281-9411.

VERMONT - Furn chalet, sleeps 14, Londonderry. 757-5599.

Wanted

ROOMMATE - New male employee interested in finding roommate. Lee Linton, Ext. 4162.

SOFTBALL GLOVE - Ext. 2032.

SUMMER RENTAL - For batchelor of quiet habits, 20 yrs at BNL, June, July & August. Small house preferred. Josh Kopp, Ext. 3778.

AKC SCOTCH TERRIER FOR STUD - Black male. Marty, Ext. 3284.

USED LIGHT METER - Ext. 3688.

TRAILER - For 15' boat, 500-750 lb capacity. Ext. 4122, 286-8512.

CAMPER TRAILER - Sleep 7-8, reasonable. Rich, Ext. 3948.

HOUSE/APT - Furnished 2 bedrm for month of June. 744-2594 after 6 or weekends.

HOME FOR CUTE PAIR - Moving to Australia & must leave behind playful cat & obedient small dog, would like to keep together if possible. Please call, Ext. 2345, 928-8044.

GAS TANK - Mercury 6 gallon. Marty, Ext. 3753.

BABYSITTER - Your home or mine, reliable, for 7-9 yr old in Bellport, weekday afternoons, 3-5:30. Ext. 2016, 286-0716 after 6.

PING PONG TABLE - Foldable, good cond, reasonable. 286-3742 eves.

FOR ADOPTION - In desperate need of good homes for 8 cats, 6 males, 2 females. 589