

## USSR Visitors

4-430-78



A delegation from the Soviet Union, involved with the administration of the Joint US-USSR Working Group on Water Resources, visited the Process Sciences Division last week. The five-member delegation was headed by I.I. Borodavchenko, Deputy Minister, Ministry of Reclamation and Water Management, (third from right). At Brookhaven they were particularly interested in the application of concrete polymer materials to large scale waterworks. Others accompanying the delegation were L.O. Timblin, Bureau of Reclamation, Denver (first left) and W.S. Butcher, U.S. Co-Chairman for the Working Group (fifth from right). BNL staff, at rear, are (from left) Ronald Webster (seated), Michael Sansone (standing), Meyer Steinberg and Jack Fontana. Larry Kukacka is in the foreground (first right).  
—photo by Reben

## Sun Day Heats Up

Brookhaven's Sun Day open house will officially get under way at 10 a.m. on Sunday, April 30, with a special ribbon-cutting ceremony at Berkner Hall. But no scissors will be in sight. Instead, the ribbon will be "cut" by focusing sunlight on it through a lens until the rays burn the ribbon.

The unique ceremony will symbolize Sun Day's focus - the power of solar energy. Sun Day, which evolved from Earth Day celebrations several years ago, will be nationally observed on Wednesday, May 3.

The Lab's gates will open at 9 a.m. for the April 30 open house, and employees, their families and friends, and the public are invited to take part in the day's events, which will run until 4:30 p.m. Throughout the open house, shuttle busses will be in operation between Berkner Hall and the exhibit center, where speakers and special exhibits will cover the use of solar energy, wind power, and alternative fuels, and the conservation of energy.

Among the many items on display will be a solar hen house built by Edward A. MacDougall of BNL's Department of Nuclear Energy. Two-by-fours and double glass were employed in the construction of the hen house (which will be occupied by MacDougall's month-old Rhode Island

Reds), and MacDougall says he has "pretty good data" showing that egg production increased as the hens' environment warmed up - even though the outside temperature was dropping and no artificial heat was used to supplement the solar system.

Events at Berkner Hall will include the premier public showing of LILCO's new film on solar energy, "Tapping the Source;" Brookhaven's slide show, "The Quest;" and the Department of Energy's traveling science show on energy.

Busses will also shuttle BNL employees and Sun Day visitors between the Lab and Wading River, where several solar homes are being built by Clarendon Construction Corporation as part of an Electric Power Research Institute project in which LILCO is involved.

In addition, the Department of Energy has invited the public to "SUN DIAL" special telephone numbers for information on solar energy and energy conservation, between Wednesday, May 3 and Saturday, May 6. The SUN DIAL information center will provide knowledgeable answers on solar energy from 10 a.m. to 6 p.m. on all four days, and the toll-free SUN DIAL number for New York State (outside New York City) is 800-522-9000.

## Record Set By 7-Foot Chamber

A new world's record for big bubble chambers has just been set by the 7-foot Bubble Chamber in a run involving only one cooldown in which it took 1,181,225 pictures. The previous record of 870,000 pictures was held by the 12-foot chamber at Argonne.

In the run completed on April 19, the chamber far surpassed its own December 1976 record of 204,000 pictures taken in one cooldown while filled with deuterium.

The record breaking run was not achieved without difficulty. The cooldown was scheduled to begin right after New Year's Day, and the chamber was cooled and filled with a neon-hydrogen mixture, the most difficult to use of all possible chamber fillings. While expanding at a slow repetition rate of once every five seconds, awaiting the arrival of a beam of neutrinos generated by protons from the AGS, the chamber developed a leak to one of its cooling loops and the run had to be aborted. Ironically, the offending loop had never been necessary, and when the chamber was warmed up it was removed.

On February 11, after substantial delays

caused by the big snowstorms, the next cooldown began. Ten days later the chamber was full of the neon-hydrogen mix. Setting optimum operating conditions and bleeding off small quantities of helium dissolved in the neon took until February 27. The next day picture-taking began with the chamber running at one pulse every three seconds. One day's worth of fine-tuning brought the rate to once every 1.6 seconds. Running continued at that rate until March 16, with time out to fix minor problems with the chamber, beam or AGS, when a scheduled change in the beam set-up caused an interruption of two weeks. The chamber waited patiently without complaint, and on March 30, took up where it had left off. On April 10, the 12-foot chamber's previous record was passed, and on April 19, at 0400 the run came to its scheduled end.

The chamber will now rest while a number of repairs and modifications are made, and hopefully will have another great run when it is next scheduled.

— Robert Louttit

Some jubilant members of the Bubble Chamber crew after the record breaking run. From left to right (front) Jim Davis, Frank Mottl, Chris Harbach, (middle) Bob Dagradi, Dan Staron, Paul Napier, Howard Olson, (rear) George Hutson, Bill Stars, Austin Gwilt, Roger Baker.

## Studier Wins Lawrence Award

4-878-78

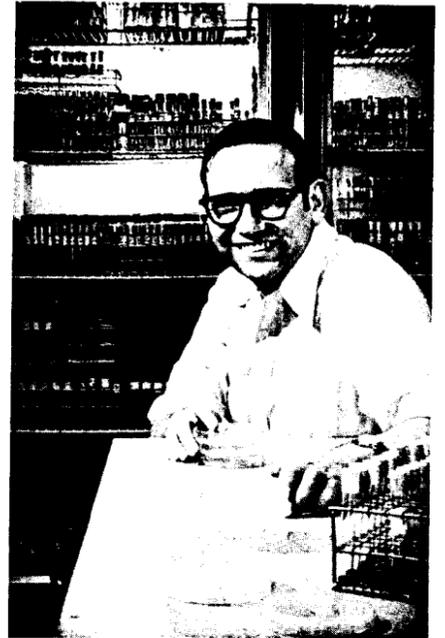
"For fundamental contributions to DNA and gene structure and function essential to understanding radiation and chemical induced genetic damage and repair," F. William Studier, Senior Biophysicist, has been awarded an E.O. Lawrence Memorial Award for 1977.

Announcement of the five award winners, each of whom will receive a citation and \$5,000, was made last week by James R. Schlesinger, Secretary of Energy. Named, with Studier, were James D. Bjorken, Stanford Linear Accelerator Center, John L. Emmett, Lawrence Livermore Laboratory, Gareth Thomas, Lawrence Berkeley Laboratory, and Dean A. Waters, Oak Ridge Gaseous Diffusion Plant. The awards will be presented in a special ceremony on April 27 in the Roosevelt Room at the White House.

Studier has been on the scientific staff of the Biology Department since 1964. During the last ten years he has succeeded in characterizing almost completely the total genetic structure of one of the bacterial viruses (bacteriophage T7). His research has provided an understanding of the control mechanisms that lead to the appearance of new proteins and how cells use various parts of their genetic machinery. This work is helping to provide the conceptual basis for extrapolating from model studies on animal systems to risk estimates for humans.

Studier was also commended for pioneering the development of the analysis, by sedimentation techniques, of the molecular weights of single and double stranded DNAs. His work in molecular biology is expected to provide new insights into the fundamental processes of life.

The Lawrence Award was established by the Atomic Energy Commission in 1959 to honor the memory of the late Ernest O. Lawrence, inventor of the cyclotron and former director of the Berkeley and Lawrence Laboratories which now bear his name. It is given for a recent, especially meritorious contributions to the develop-



F. William Studier

ment, use or control of atomic energy in areas of all sciences related to atomic energy, including medicine and engineering. Other staff members who won the award while at Brookhaven are Herbert J.C. Kouts (1963), Jacob Bigeleisen (1964), and Joseph M. Hendrie (1970).

Born in Waverley, Iowa, Studier received a B.S. degree from Yale University and his Ph.D. in Biophysics from the California Institute of Technology. Before he joined the Brookhaven staff, he held a two year postdoctoral appointment at the Stanford University School of Medicine.

He is a member of the American Association for the Advancement of Science, the American Society of Biological Chemists and the Biophysical Society.

Studier, his wife, Susan, and their two children, Frederick and Carol, live in Stony Brook. His family plans to accompany him to Washington for the award ceremony.



**Color Video Tape Now Available**



A portable video camera permits professional photographers Doug Humphrey (background) and Bob Walton to record virtually any event, apparatus or experiment on location. The editor console control, under Humphrey's hand, edits the recorded tape into any desirable sequence. Narration, titles or schematics can be added. The edited tape, in a 3/4 inch U-Matic Cassette (foreground), provides an hour of playback on any standard DOE videotape equipment. Further information is available from Bob Walton on extension 2388.

**The Unflappables**

Brookhaven's two new major projects, ISABELLE and the National Synchrotron Light Source, have been much in the news. These multi-million dollar proposals not only generate debate and deliberation, but a great deal of paperwork.

Aiding in the administration and looking forward to the construction of the projects are the two principal secretaries, Paula Hughes for ISABELLE and Carolyn Albert for the Light Source.

Both secretaries share a number of things in common. They are experienced and not likely to be overcome by the pressures which are their daily lot. Neither has worked before on a project from the initial stage to the actuality, and both find this particularly exciting and challenging. They are looking forward to the time when the projects go into high gear and what is now just on paper, takes form.

Paula Hughes started out ten years ago in the Accelerator Division, and when the A<sup>2</sup>D<sup>2</sup> section for which she worked became the ISABELLE Division in July 1975, she went with them to the new headquarters in the Cosmotron. After her years in this field, the formidable high energy physics terminology is now a familiar language to her. Paula is secretary to Project ISABELLE Head, James Sanford, and must, with the aid of two assistants, handle the entire workload of the project. ISABELLE currently employs about 100 persons. As construction proceeds, this number will increase rapidly and so will the office workload. That's all right with Paula. She will organize accordingly. When a day's work at ISABELLE is done, Paula returns to her home in Coram. She is married and has two children 15 and 14.

Carolyn Albert has been working for the Light Source staff since December 1976



Paula Hughes (top) and Carolyn Albert

and is secretary to Arie van Steenberg, head of the four-year construction project. Ground breaking for the Light Source is expected in late summer.

After working eight years as secretary to a vice-president of the Ford Foundation, Carolyn came to Brookhaven in 1958 and has been here off and on ever since. At one point she left to have two children and later returned to work part-time. In 1965 she became secretary to the Tandem Research Group in the Physics Department where she remained until she transferred to the Light Source.

Fifty people are now associated with the project and Carolyn handled all the work, until recently, when an assistant was hired. Although every day is a busy one, she loves it, and says, "I have learned more on this job than on all the others." In a fast-moving project such as this, there is no dilly-dallying, and it is up to Carolyn to see that whatever needs to be done, is done, pronto. She, her husband and their two children, now 18 and 15, live in Riverhead.

National Secretaries Week begins April 24; Secretaries Day is April 26.

**IBEW Meeting**

Local 2230, I.B.E.W. will hold its regular monthly meeting on April 27, 1978, 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 St., Patchogue. On the agenda will be regular business, committee reports and the President's report.

**Cooking Exchange**

Join the Cooking Exchange at an "Italian feast" on Wednesday, April 26, at 12:30 in the Recreation Building. Discover new ways of serving pasta and other Italian gourmet delicacies. If you have an unusual recipe you would like to share, call Linda Humphrey at 286-0925 after 6:00 p.m.

Admission, as usual, is 75¢ and 25¢ per child for babysitting.

On May 10, the theme of the meeting will be "gourmet picnics." If you wish to contribute a recipe, please call Sandra Edwards at 286-9256.

**Cafeteria Menu**

**Week Ending April 28, 1978**

<b>Monday, April 24</b>	
Rosy onion soup	(cup) .30
	(bowl) .40
Chicken à la king on rice	1.20
Western omelet and 1 veg.	1.25
Hot Deli - Pastrami	(on bread) 1.15
	(on roll) 1.25
<b>Tuesday, April 25</b>	
Chicken mushroom supreme	(cup) .30
	(bowl) .40
Chinese pepper steak on rice	1.30
Barbequed spare ribs and black eyed peas	1.40
Hot Deli - Roast beef	(on bread) 1.25
	(on roll) 1.35
<b>Wednesday, April 26</b>	
Split pea soup	(cup) .30
	(bowl) .40
Breaded flounder filet and fr. fr.	1.25
Spaghetti w/Italian sausage and garlic bread	1.30
Hot Deli - Baked Virginia ham	(on bread) 1.25
	(on roll) 1.35
<b>Thursday, April 27</b>	
Cream of chicken soup	(cup) .30
	(bowl) .40
Grilled Reuben sandwich w/cole slaw and chips	1.25
Beef hash and 1 veg.	1.20
Veal parmigiana and 1 veg.	1.20
Hot Deli - Meatball hero	1.25
<b>Friday, April 28</b>	
Manhattan clam chowder	(cup) .40
	(bowl) .50
Fish 'n chips	1.25
Beef liver and onions w/1 veg.	1.15
Hot Deli - Roasted turkey	(on bread) 1.25
	(on roll) 1.35

**Towards A Polished MS**

For many scientists, doing the research is a lot easier than preparing the formal written report. All staff members should be aware that the Laboratory recognizes this problem and that editorial services are readily at hand.

In the Technical Information Division, experienced editors, Margaret Dienes and Mary Rustad, assist authors in the final preparation of papers in all disciplines. For many years, they have helped scientists, who are aware of their services, to polish prose, check terminology and abbreviations, and see that equations, tables and figures are correct and in standard form.

They work closely with authors in proof-reading reports set in type. For camera ready reports typed in the departments, they will edit before the final typing. The editors are glad to assist those scientists for whom English is a second language, not only in the editing of BNL reports, but of articles for publication in other journals. Dienes and Rustad are available to help out at conferences and to edit conference

proceedings. And for those who are faced with transcripts of tape recordings, the editors will be glad to put the tapes in readable form.

To ensure uniformity of excellence, it is noted in the new Technical Publications Manual, which has just been published, that all formal reports will be edited before publication. As a matter of procedure until the Daonics system goes into effect, staff members are asked to send two copies of each report to Technical Information. One will be used to obtain the usual technical clearances, and the other will be automatically routed to the editors. The authors will be consulted about any changes before the report is printed. It should be noted that editorial services are not available for informal reports.

As a further help to authors, the Manual contains a new section on hints for effective writing, in addition to the standard information that must be included in any report.

**New York City Trip**

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, May 3. Departure will be at 8:32 a.m. from the Patchogue LIRR station. Round-trip fare for adults is \$2.45, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than **Thursday, April 27**. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you at the train station. Refunds will be made only if cancellations are received by the **Friday** preceding the scheduled trip.

**CREF Values**

	1978	
January	\$35.72	February \$34.96
March	\$36.15	

**Nuclear Proliferation**

Dr. Richard K. Betts, Research Associate at the Brookings Institution, Washington, D.C., will give a talk on "Power Politics, Third-World Strategy, and Nuclear Proliferation," in the Walter Hamilton Seminar Room of the Chemistry Department Building, Tuesday, April 25, at 3:00 p.m. This is the fifth in the continuing series of seminars on Nuclear Safeguards and Proliferation, sponsored by the Department of Nuclear Engineering.

Dr. Betts, who is a past Lecturer in Government at Harvard University and staff member of the National Security Council of the U.S. Government, has written a number of books and articles in the areas of his specialities of American foreign policy, defense strategy, and arms control.

**Radio Club**

There will be a meeting of the Radio Club at 7:30 p.m. on Tuesday, April 25 in the club room at the recreation building in the lab apartment area. The purpose of the meeting is to operate, to plan and if possible start cleanup and reorganization of the shack, and to go through, inspect, and collect the equipment which will be used on Field Day. All members are urged to attend. For more information, contact the club secretary, Alan Bieber, Jr. at Ext. 2924 or 2928.

**Arrivals & Departures**

<b>Arrivals</b>	
Anne S. Baittinger	Director's Office
Daryl E. Bohning	Medical
Glenn L. Booman	Nuclear Energy
Aleksandar T. Hrisoho	Instrumentation
Eugene R. Kelly	Physics
Patricia A. Knisely	Accelerator
Carol L. McFadden	Director's Office
Helen Puschin-Todosow	Nuclear Energy
Larry Turf	Accelerator
K. William Velia	Accelerator
<b>Departures</b>	
Toshihiko Hara	Chemistry
Liv H. Knudsen	Medical
Edward A. McGilly	Plant Engrg.
Denis B. Rhodes	Plant Engrg.
Flemming B. Pedersen	Accelerator
Carol S. Petraitis	Director's Office
Joel A. Storch	Energy & Env.

# BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

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## 245 Years Of Service



Nine members of the Reactor Division, who have been with the Laboratory a good many years, were presented with service awards last week. From left to right are Jack Phillips (30 years), Mike McKenna (25), Paul Colsmann (30), Ernie Guettinger (30), Mike Zukas (30), Dick Adams (30),

Robert Powell (Head of the Division who presented the awards), Gil Pitcher (30). Missing from this picture are Fred Griswold (20 years) and Don Stonebridge (20 years).

## BERA Sales Office

BERA is happy to announce that the Sales & Services Office in the cafeteria is now stocked with personal items such as toothpaste, mouth wash, shampoo, disposable razors and shaving cream. It is hoped that having these products available on site will prove to be a welcome convenience to employees and visitors.

For those who are not aware of the other sales and services at the store, here is a list:

Excellent 2-3 days film processing service is provided. Sales items include film, flash bulbs, batteries, cameras, assorted photographic equipment and supplies, Norelco smoke detectors, large size fire extinguishers (suitable for boats), greeting cards, and greater New York area road maps.

Magic Kingdom discount membership cards are being distributed to employees at no cost.

Combination tickets for entrance into the Great Adventure Amusement Park and Safari Land, regularly selling for \$11.50, are now on sale at a discount price of \$9.00. Tickets are valid for any day during the 1978 open season.

Store hours are from 10:00 a.m. to 1:00 p.m., Monday through Friday. The phone extension is 3347.

**Please note:** The store will be closed on Monday, April 24.

## Rock Climbing

The BNL Mountain Club will be climbing at the Gunks (New Paltz, N.Y.) on Saturday, April 29. Several of the more experienced climbers will be on hand to teach beginners the basics. The club has the rope and other necessary equipment. Climbers should wear sneakers or hard edged shoes and meet at the cliffs at 10 a.m. There is a camping area for those who wish to stay over. For further info contact Don David, Ext. 3942 or Chuck Calef, Ext. 2009.

Dates to remember:

- May 6: a canoe trip on a local river
- May 13, 14: overnight hike to Slide Mt.
- May 27, 29: canoe trip to Pine Creek, Pa.
- June 10, 11: canoe trip on Delaware Riv.

## Volleyball

### Mixed League

On April 17, the snow day games of January 9th were played to determine the final standings of the second quarter.

### Division A

The Nads sank the Assorted DO-E-Nuts: 15-9, 15-4, 14-16. Lookin' Good miffed the Le Mufs: 15-4, 15-3, 15-3. No Names beat the Popovers: 15-9, 15-3, 15-11.

### Final Standings - Second Quarter

No Names	13	2
Lookin' Good	12	3
Nads	7	8
Popovers	7	8
Assorted DO-E-Nuts	3	12
Le Mufs	3	12

### Division B

The Nuts & Bolts bolted Oceanography: 7-15, 15-7, 15-10. The Diamonds shone over Riffraff: 15-3, 15-5, 15-10. The Leftovers covered Cowturkey: 15-6, 15-13, 5-7.

### Final Standings - Second Quarter

Diamonds	12	3
Nuts & Bolts	12	3
Oceanography	10	5
Leftovers	7	8
Cowturkey	5	10
Riffraff	5	10

## Speakers Meeting

At a lunch meeting on Thursday, April 27, Peter Colombo (DNE) will give an informal talk on the current status of the disposal of radioactive wastes to Speakers Bureau participants who are interested in nuclear power topics. The meeting is scheduled to begin at noon, and attendees are asked to bring their lunch to room D, Berkner Hall.

## Sing Out

The first meeting of the new chorus group will be held at 12 noon, April 27, Room A in Berkner Hall. All those interested in joining are invited to attend. Bring your ideas for songs, performances and a name for the fledgling group.

## Bicycling Events

The TOES (2-day tour of Eastern Suffolk) is filling up rapidly. As of 4/17, the 75 spaces available at the Chequit Inn were taken, with ten riders through BNL. Some additional space is available, perhaps by farming out to nearby hotels.

Owing to uncertainty in getting a truck to return bicycles to the Lab, the tour of historic houses in the Jamesport area this Sunday starting at BNL is by advance registration only. Call Gerry Morgan before Sunday. Others may meet the tour at Aldrich Land and Sound Avenue at 2 p.m.

The ride previously termed the "5-Boro Challenge" is actually the "5-Boro Bike Tour." It is a unique, leisurely 30-mile tour through all five NYC Boroughs sponsored by AYH with thousands of cyclists of all ages expected. It starts at 7 a.m. at City Hall Sunday, April 30, rain or shine. Send \$1 registration fee to American Youth Hostels, 132 Spring Street, New York, New York 10012, with name and address. For special subways and other starting points contact Gerry Morgan, Ext. 4841 or 289-5433, or call AYH at 212-431-7100.

## Soccer

Energy-Med, with the fine frontline of Toby Levine and Reckard (where have they been most of the year?) putting together some good scoring combinations, beat AGS-Chem, 4-1. Port Jeff reduced the magic number to one point with a victory over Shoreham while Stony Brook kept alive their hopes by beating Physics. There are only two more games left for the completion of the indoor season.

The Brookhaven Laboratory team has elected not to participate in the Brookhaven Town League this summer. Instead, intra-Lab pickup games will be played on Monday evenings at 5:10. The season will begin on May 8. Sides will be chosen informally and interested players need only show up.

## Bowling

### Green League

With four weeks of bowling left, the Sparks keep gaining ground on their opponents as they battled the Old Timers II for seven points. For the Sparks, J. Cockrane had a 213, J. Carroll a 220 and for the Old Timers II, B. Galen a 213. The Pinball Wizards battled the 76'ers for seven with G. Meinken rolling a 204. The Blue Jays managed to take eight from the Freon Loaders, taking total wood by one pin. The Dyno-Mites got dumped for eleven by the Cosmos. The Trouble Shooters took eight from the Pick-Ups and the Got-A-Hit-Ums with their match, could only come up with three points.

### Purple & White League

The Pen Mac's are in first with The Flounders in second by a point.

Joe Mayeski had high game for the men with a 235 and Jeanne Penoyer for the ladies with a 186. Ben Belligan had a 555 series. Other good games were Ken Aselta 203, Dick Murgatroyd 205, Ben Belligan 203, Mary Jane Gillette 173, Irene Sperry 169.

### Pink League

Cathy Van Noy might have won a triplicate patch but she blew it with a 205 game - too bad! Good games were bowled by Renie Rosati 181/160, Helen Keeley 179/169, Marge Stoeckel 177, Ellie Adams 174 and Sue Vander Kolk 161. Honorable mention this week goes to Marie Grahn who converted the 4-7-10 split. On the light side,

There should be some kind of award, Fran

For a lady who can  
Throw her ball in reverse

And watch the guys on alley 8 disperse.

### Red League

The Anachems knocked down 3041 pins and took the Bubble Boys 11-0. E. Gill had his best night of the year with a 212-557/665 series (92 over average). The Cosmos also won 11-0 over the Dynamites. They had 3037 gross pins and a 1091 game. W. Rambo was 84 over average with his 525/651 series. C. Neuls also bowled a nice 522/627 series.

The Sandbaggers out pointed the Old Timers in a good match 8-3. R. Meier bowled great with a 213-593/665 series. R. Adams wasn't far behind with a 223-570/639. W. Reams had a nice 211. The Designers took the Got-A-Hit-Um team 8-3. In one game they threw a 1085. M. Bull had his best night this season with a 545/653 series (80 over average). E. Sperry had a 204. The 76'ers lost to the Pinball Wizards 4-7. R. Larsen had a 200. J. Connelly bowled well with a 212-557/617 series. The Freon Loaders could only manage 3 in their match with the Blue Jays.

### Coram Lanes

A reminder that any women interested in a BNL league in Coram should submit a list of their team members (5) to Carol Beckner, Bldg. 477A.

## Basketball

In the first round of the BERA Basketball Tournament, the Dribbles defeated the Spuds 114-97, and the Unicorns surprised the Road Runners 125-116. In the first game, the Spuds, playing with 5 men, staged a fourth quarter rally to cut the Dribbles' lead to 6 points, but the pace of the game and Jerry Hobson's baskets took their toll as the Dribbles pulled away in the closing minutes. Hobson continued to amaze the fans as he tossed in 58 points. Jeff Gaffney returned to action and celebrated the birth of his second daughter by scoring 30 points, and Dennis Nordstrom added another dozen. The Dribbles' scoring was completed by Les Lawrence (9), Ron Webster (3) and Bernie Jasper (2). Stan Gilbert led the Spuds with 33 points while Bob Doty found the range for 28 points. The Spuds' scoring was rounded out with Jim Rowehl (15), Jerry Shepherd (12), Larry Smith (6), Oak Noell (3).

In the second game the Unicorns were led by the threesome of Gary Mosley (29), Bob Rowley (24) and Leroy James (23). The Unicorns' offense was supported by John Mosley (14), Dan Costa (14), Rich Sapienza (13) and Brant Johnson (8). For the Road Runners, the high scorer was Wayne Smith with 33 points, while Clarence Campbell and Eric Frak each scored 27 points. Fletcher Johnson tossed in 21 points, and Rich Kayte scored 8 points. The games were also highlighted with fine defensive plays by Bob Schuman and Lou Snead (Dribbles), Mitch Williams (Road Runners), and Gordon Smith (Unicorns).

## Runners Corner

Congratulations are in order for our outstanding Boston Marathon runners. Ted Landry knocked almost six minutes off his best previous time for the 26.2 mile distance, running an excellent 2:36:15. Gus Prince ran in the fine time of 2:59:00, especially fast in view of his 2 1/2 minute delay at the starting line (4700 runners started on a narrow 2 lane highway), and in spite of a chronic knee problem which has limited his training this winter. Both runners automatically qualify for next year's Boston race and will join Dick Fuller who qualified last week in Nassau County. Ted's and Gus' times would have been even better had it not been for a computer failure at the finish line which necessitated assignment of finish times in 15 second increments.

All BNL runners are reminded that we will run our 3rd annual challenge cross country race against the Rocky Point Joggers on Saturday, April 29. The unique scoring system, which they have designed to perpetuate their victories, awards points to every finisher regardless of time, so we welcome every runner, fast or slow, serious runner or fun-runner.

Our apologies to Lew Commerford (Medical) for omitting his name from the L.I. Marathon results last week. He finished in 371 place with a time of 3:43:10.

4-1028-78

## 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.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific 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.

**LABORATORY RECRUITMENT:** Opportunity for present Laboratory employees.

579. LAUNDRY OPERATOR A (2 positions) - Temporary (May 15 - September 15). Correction of posting for "Laundry Operator B" in last week's *Bulletin*. Plant Engineering Division.

589. SECRETARY (5 positions) - AAS degree or equivalent with ability to take shorthand and knowledge of general office procedures. Division of Contracts and Procurement.

590. OFFICE SERVICES ASSISTANT (2 positions) - Requires good typing and other office skills. Library experience helpful in one position. Technical Information Division.

591. OFFICE SERVICES ASSISTANT - Requires experience in Accounts Payable. Fiscal Division.

592. WORD PROCESSING ASSISTANT - Experience in shared logic system preferred. Must be willing to work days or nights. Photography and Graphic Arts Division.

593. CHAUFFEUR (2 positions) - Staff Services Division.

594. MATERIAL HANDLER (2 positions) - Supply and Materiel Division.

595. CLERK TYPIST (2 positions) - Supply and Materiel Division.

596. RESIDENCE CUSTODIAN (4 positions) - Temporary (May 15 - October 13). Staff Services Division.

**OPEN RECRUITMENT:** Opportunity for present Laboratory employees and outside applicants.

597. ART DIRECTOR - MA in art or equivalent. Abilities must include all areas of design, conceptual as well as typographic, as well as managerial skills. Photography and Graphic Arts Division.

598. MECHANICAL ENGINEER - BS/MSME or equivalent with recent experience in general machine design and manufacturing processes. Accelerator Department.

599. FACILITIES ENGINEER - Requires BS in architecture or equivalent and broad experience in architectural analysis, design, and general prosecution of construction projects. Plant Engineering Division.

600. FACILITIES ENGINEER - BS in civil or architectural engineering or equivalent and broad experience in erection and modification of buildings and structures, including preparation of preliminary sketches, specifications, working drawings and estimates. Plant Engineering Division.

601. FACILITIES ENGINEER (2 positions) - Requires AAS degree in mechanical engineering and solid experience in design of HVAC, piping, plumbing, and their ancillary equipment. Plant Engineering Division.

602. SPECIAL HAZARDS ENGINEER - BS in safety engineering or equivalent experience in field, and familiarity with OSHA requirements at construction sites and in industrial work locations. Safety and Environmental Protection Division.

603. CONTRACTS SPECIALIST (3 positions) - BBA or equivalent. Must have substantial experience in all phases of procurement with emphasis on contract preparation and administration. Division of Contracts and Procurement.

604. BUYER - BS in business or engineering, substantial experience in subcontracting machine shop, mechanical and electromechanical fabrication. Technical mechanical knowledge and familiarity with Government procurement regulations required. Division of Contracts and Procurement.

605. ACCOUNTANT - BS in accounting with diversified accounting experience. Fiscal Division.

606. TECHNICIAN - AAS degree or equivalent in electrical technology with strong background in heavy electronics and rf systems. Accelerator Department.

607. TECHNICIAN - AAS degree and/or related experience in computer maintenance. Applied Mathematics Department.

608. PHOTOGRAPHIC TECHNICIAN - AAS in photographic technology or equivalent, with experience in all phases of darkroom procedures. Photography and Graphic Arts Division.

609. COMPUTER OPERATOR - Rotating shifts. Applied Mathematics Department.

610. REFRIGERATION & AIR CONDITIONING ENGINEER - Plant Engineering Division.

611. ELECTRICIAN A (2 positions) - Plant Engineering Division.

612. PATROL OFFICER TRAINEE - Rotating shifts. Safety and Environmental Protection Division.

### Autos & Auto Supplies

72 TOYOTA - Corona Mark II, 4 dr, auto, 2 new tires, 2 studded snow tires, good cond, \$1400. Vivian, Ext. 3429.

TIRES - (2) Fiberglass belted whitewall tires, E78x14, fair cond. \$5 ea. 732-5829.

NEW & USED TIRES - Rims, repairs, snow, reg, radial, Dunlop-Michelin, FREE installation, balance avail. Fred Usack, Ext. 4597 lunchtime or 475-4935 eves.

73 DATSUN - 1200 coupe, 81,000 miles, excel cond, \$1200. Sam, Ext. 2083 or 475-4963.

66 DODGE DART - 2 dr, 6 cyl, auto, p/s, p/b, mech excel. \$350. Steve, Ext. 3822 or 929-6527.

TIRES - Steel radials, (1) ea JR78-15 very good, \$25; (1) ea LR78-15 useable, \$10. Joe, Ext. 4254 or 281-7683.

70 CHEVY - C-10 4x4 pickup, 8 ft bed w/7 1/2 ft Fisher snow plow, 52,000 mi, \$3,000. Firm. 732-3118.

75 YAMAHA - Motorcycle, 650 cc, low mileage, excel cond, extras included. 286-9108 after 6.

73 CHEVY - Pickup, Cheyenne 20, 350 engine, a/m, 4 spd, H.D. shocks, 36" camper cap, very good cond, \$3,300. John, 924-6733 after 3:30.

72 CHEVY - Vega hatchback, 76 eng, 21 mpg. \$425. Or best offer. Ext. 4504 or 473-1523.

70 DODGE VAN - 3/4 ton, new motor and drive train. 654-1211 after 5:30.

TIRES - (2) ER78-14 Gillette steel belted radial snow tires, used half a season, \$70. Ext. 4010, Jeff.

C-4 AUTOMATIC TRANS - B&M built, low mileage and holedshot, \$125; 1965 Mustang front hood w/ tunnel ram scoop, \$20. Chris, Ext. 4612.

68 COUGAR - For details, 736-2511.

1977 CARBURETOR - Rochester, 4 brl, \$30. Ron, Ext. 4082 or 289-1003.

72 PONTIAC - Catalina, 4 dr, ps/pb, a/c, clean, call early morn or eve. \$750. 878-1204.

76 HARLEY DAVIDSON - 125 cc, on-off road, excel. \$500. 286-8758 after 5.

71 PONTIAC - GT37, 4 spd, new clutch, good running cond, \$850. 744-8894.

TIRES - (4) 9.50-16.5 Firestone highway tires, for 3/4 ton pickup, low mileage. 924-8264 eves.

65 HARLEY DAVIDSON - 900 cc sportster, custom seat and paint, very clean. 924-8264 eves.

76 HONDA - CB200T, new, (20 miles) \$750; 1972 HONDA 450, excel cond. \$700. Bob, Ext. 3313 or 981-3965.

RIMS - For Volkswagen, 1965 models and older, 2/\$5. Judy Ridgeway, Ext. 2452.

75 HONDA - CB360 motorcycle, blue, like new cond, low mileage, extras, \$800. Gene, Ext. 4605 or 744-3945.

73 SALON 442 - Silver gray and black, steel radials, 350, auto, swivel seats, mint cond, rare, must sell. \$3,100. Joe, Ext. 4031 or 968-9197.

RIMS - (2) 14", 5 hole, fits Plymouth Dodge. M. Kramer, Ext. 3941.

BENCH SEATS - (2) for van, that convert from dinette to bed, \$75 ea, 2/\$125. Chuck, Ext. 4481 or 567-1272 after 4.

MOTORCYCLE - Indian MX 74 cc, excel cond, \$300; helmet, \$15. Fred, Ext. 4407.

69 BUICK - LeSabre, 4 dr, auto trans, a/c, runs well, \$300, negotiable. Fred, Ext. 4311 or 473-1578.

66 INTERNATIONAL - Travelall 1100A, 6 cyl, 4 wd, 4 spd, plow, extra tires, body rusted, 97,000 mi. \$750. Ext. 4254 or 281-7683.

65 CHRYSLER - Newport, 4 dr, auto, p/s, p/b, running cond. \$175. Ext. 3788.

75 PONTIAC - Astre hatchback, excel cond. \$1400. 472-9619.

75 HONDA - 360 cc, good cond. \$700. 325-0809 after 7.

65 BUICK - La Sabre 400, V8, 4 dr, good rubber, nice running, needs new front seat. \$200. Bob, Ext. 4782.

21' TRAVEL TRAILER - Apollo, self cont, refrig, Ht, H.W., B.R., Tandem ext, excel cond. \$2,300. 281-8063 or 281-6929.

75 VEGA - Very good cond, steel radials, rear defogger, new coil and wires, tuned up, must sell. 286-9390.

70 FORD WAGON - P/s, p/b, 55,000 mi, body rusty, \$600. Don, Ext. 2026 or 286-1396 eves.

**Boats & Marine Supplies**

17' COBIA - 55 hp, Chrysler o.b., full elec, both '71, w/E-Z roller trailer 1977, many extras, little use. \$2,300. Ext. 4254 or 281-7683.

14' JOHN DORY - Swivel fishing chair, steering, trailer; Explorer 17' fiberglass daysailer, 4 hp Johnson. Ext. 4335 or 286-9458.

15' MFG - Fiberglass runabout, old but works fine, w/35 hp Chrysler 1974 elect start, excel, must sell. \$550. Ext. 2032 or 286-3455.

ELECTROLYSIS COLLARS - \$2.50; 3" rudder buttons, \$2.50; sea strainers, hull plates, etc. Russ King, Ext. 3460.

16' ALUMINUM - Canoe, double-ender, Delhi, like new, 2 paddles. \$150. 929-8105.

SAILBOAT - 22', sloop, fiberglass, inboard engine, sleeps 4. \$7,200. Harriet, Ext. 4853 after 1.

16' GARVEY - Clam boat. \$120. Ext. 4309 or Paul, 475-4394.

SEARS 7 1/2 HP OUTBOARD - Used 10 hrs, \$240; (warranty good to 7/78) 3 1/2 gal gas tank, \$15. Lou, Ext. 4758.

20' LARSEN - Cuddy cabin, navy top, 120 hp Mercruiser, 1975 Shoreline tilt-trailer, extras. \$2,800. Scott, 283-0888, 727-5168 after 6.

FLYING JR. FIBERGLASS - Sloop, aluminum spars, spinnaker, trailer, many extras. \$650. Walt, Ext. 4597.

12' GRUMMAN ALUMINUM - Boat w/shoreline galvanized trailer, both excel cond. \$250. Firm. Ext. 4504 or 286-0246.

16' HOBIE CAT - Used only one season, excel cond. George, 475-7481.

### Miscellaneous

FREE WINE BOTTLES - Several cases, clean and sorted. Ext. 2032 or 286-3455.

CRIB - Simmons, and Kantwit mattress, good cond, \$30. Y. Park, Ext. 4410 or 924-0581 eves.

ALUM STORM - And screen door, 36"x80" w/2 glass inserts, 2 screen inserts, grillwork (removeable) lock and 2 keys, \$20. 744-3792.

GUARDIAN COOKWARE - Club alum w/glass covers, 10 qt dutch oven, \$20; 3 qt casserole, \$15; 3 pc sauce pots, \$10 ea, never used. 744-3574.

LOUNGE - Foam pad and 2 bolsters, \$15; butcher knives, all sizes, \$3 ea; keg of nails, 20#/lb. 744-3792.

BAR - W/back bar, 5' wide, brown & beige, 3 stools. \$50. Ext. 2529.

ELECTRIC SLICER - Maple rocker w/o arms, swivel rocker, Sears vacuum cleaner. 325-1961.

SPRING JUMPSUITS - (2) both size 5, one peach, one yellow, \$5 ea; new pink German tablecloth and napkins, \$5. Sharon, Ext. 3312 or 878-2591 eves.

STEURY - 1969 hardtop camper, sleeps 8, sink, stove, ice box, new spare tire, good cond. \$600. 924-4993.

HYDRAULIC - Door closers, \$4; door-knobs and locks, \$4; door-wind chains, \$2. All new. 744-3574.

CHESTNUT GELDING - 8 yrs, 15.3 hands, sound, English-Western, good trail horse. Jeanne, 878-9534.

GARDEN SHREDDER - 3 1/2 hp, excel cond, \$75. Ext. 4171.

PENNIES, NICKLES, DIMES - 1900 to 1939, to trade for some dates needed in my collection; ladies hair dryer, hardly used, \$15. R. Horwitz, Ext. 4134.

27' HOLIDAY RAMBLER - A/c, full rear bath, like new, must see, used 6 times. 399-0273.

LENS - Vivitar 100 mm fixed mount for Canon. Rich, Ext. 2495, 928-4527.

LAWNMOWER - JC Penney, \$35; surfboard, \$20; record player, \$15; 12V converter power unit, new, \$30. Jim, 289-1186.

DINING RM SET - French provincial set (formal) 3 leaf table, 4 side chairs, 2 arm chairs, lighted china, all excel cond, \$400; bedroom set (child's), box spring, mattress, nite table, desk. double dresser, \$100. 281-3213.

SOFA - 3 pc Fr Prov, fruitwood sectional, green; 2 lamp tables, \$250; bedroom set, Fr Prov, fruitwood, triple dresser, chest-on-chest, full size bed, 2 nite stands, mirror, excel cond. \$350. 589-0208.

DESKS - (2) formica top school desks, \$5 ea; twin bedspread, canopy and sham, white nylon w/ lavender, \$15. 475-2998 after 3.

SEVERAL BOXES - Of good stuff for a yard sale, come and make an offer. Ext. 2032 or 286-3455.

COX CAMPER - Commander 515, sleeps 6, w/ice box, sink, dinette, portable toilet, 7000 BTU propane heater. \$600. Ron Manning, Ext. 4752 or 286-0353 after 5.

HAMMOND ORGAN - Built in tempo, step-by-step lessons books included. 585-8336 after 6.

BOY'S BIKE - (2) 20", one green, one blue, \$25 and \$20. Ernie, Ext. 4291 or 727-2861.

COX CADET CAMPER - Spare tire, leveling jack. \$525. 289-0399.

ALBERTA SPRUCES - Two feet, \$7 ea; American holly, up to 4 ft, \$1.50/ft, you dig; white pines up to 5 ft, \$1.00/ft. John, 744-5867.

POWER CASTER - Park your trailer with a power caster, at a touch of switch, forward or reverse electric, excel cond. \$195. Bob Johnson, Ext. 3354.

SKI BOOTS - Women's Reiker, size 7, fur lined, excel cond, blue, only used 1 1/2 seasons. 286-1076.

ROTOTILLER - \$75. 722-4865.

COUCH - 4 pc sectional, \$25; refrigerator, 10 cu ft, good cond. \$100; single bed and frame, \$40; dresser, \$25. 331-3469 after 6.

24' TRAILER - 1975, a/c, awning, deluxe model. \$4,000. Ext. 2543.

CAMPING TRAILER - 9'x17' tent, folds on to ground, sleeps 6, needs metal work on trailer, cheap. Best offer. 878-2827 after 5:30.

DINETTE SET - 4 chairs, wrought iron, \$100; microwave oven, 15KV, \$300. 281-6130 eves.

RIDING MOWER - Bohlens 24", old but works well. \$75. Willen, 744-6423.

LIVING ROOM SET - 8 piece Italian Prov; 21" color TV; antique dresser w/marble top. Matt, 399-2769 or Ext. 2063.

HO TRAIN SET - 4x8' permanent set up, landscaped, 3 locs, 4 pass, 7 freight, new cond. 924-4063 or 281-3299.

GRINDER - Norwalk, extra heavy duty, top of the line, meat-fruit-nut-seed and grain grinder combo, orig \$335 + shipping. Asking \$275. 286-1510.

CROWN ROYAL - Stoneware, service for 8, silverware service of 8. \$175 or best offer. 281-8497 after 5.

SEWING MACHINE - Universal portable. \$90. 286-1510.

FREE - (2) very old console color TV's, intact but need work. Chris, Ext. 4278.

CAMERA - Spiraflex SLR w/case, 55 mm lens, tripod, electric strobe, remote switch. \$165. Ext. 2916 or 325-0363.

### 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

ST. JAMES - 5 rm house, 2 car garage w/ workshop area, walking distance to stores, rr, school, landscaped, fenced 1/4 acre. \$35,000. Seen by appt, 473-2038 after 6.

BELLPORT VILLAGE - 7 rm, an older very special extended cape, up to 4 bd rms, fp, garage, full bsmt, well planted 1/4 acre w/privacy, cedar shakes, appl, high 30's or rent reasonable. Ext. 2032 or 286-3455.

CATSKILLS - Summer home, new, on 10 acres in Catskill-Ellenville area, Swiss Chalet, balcony front and back porch, double dormers, well, 1000 gal. ceptic tank, a budding state land, very priv. \$39,000, firm. Ext. 4586 or 681-7868.

EAST PATCHOGUE - Ranch, custom, brick veneer, 3 bdrm, oversized l/r, porch, fin bsmt, 2 full baths, 2 fp, 2 car garage, 130x150. \$53,000. For appointment, 286-9054.

SHIRLEY - Hi ranch, 3 bd rms, 1 1/2 baths, w/w carpeting, sun deck, fenced, shed, dog pen, all appliances, extras, move right in. \$29,000. 281-7849.

COPIAGUE - 2 bdrm Condominium, central a/c, re-frig, stove, w/w carpeting, balcony terrace, tennis, pool, marina, clubhouse. 887-1811.

BROOKHAVEN HAMLET - 3 bedrm custom ranch on approx 1 1/2 acres, 20'x20' new barn, exotic landscaping, prestigious area, other features too numerous to list. 286-0246.

SETAUKET - 2 1/2 yr old Mother/Daughter Hi-ranch, 3 Village Schl, 1/2 acre, 4 bd rms, 2 baths, furnished downstairs apts, many extras, 3 mi to SUNY, 16 mi to BNL. \$46,990. Martha, Ext. 3307 or 751-8649.

ROCKY POINT - "Tides North" beautiful custom decorated colonial, 4 bd rms, den, fp, w/w appl, fenced, gorgeous 18 ft Florida rm, walk to priv beach club. \$45,500. 744-1927.

N SHIRLEY - Mother/Daughter, 5 min from Lab, oil heat and hot water, garage, \$3,000 cash over, \$28,000 mortgage at 8%. 585-1575 eves.

MILLER PLACE - 4 bd rms, Colonial, d/r, fam rm, fp, 1/2 wooded acre, lw taxes. \$56,500. 331-1798.

S SETAUKET - 3 bdrm ranch, fin bsmt, greenhouse, 5 appl, 1/2 acre, 3 Village Schl Dist, \$1,100 taxes. \$32,500. 331-1798.

E MORICHES - 3 bdrm ranch, dinette, heated sun-porch, bsmt, w/w, s/s, 2 car garage, appl incl elec range w/self cleaning oven, 12x14 stor bldg, entire backyard fenced, 1/2 acre, low taxes. \$43,500. 878-1471 after 5:30 and weekends.

W ISLIP - Hi ranch, S Montauk Hwy, docking rights, 3 bd rms, l/r, d/r, eik, fam rm, den, 2 1/2 baths, 2 fp, deck, patio, low 60's. 661-3732.

MASTIC BEACH - 4 yr old house, 6 rms, full bsmt, 80x125. \$28,500. 281-5328.

N PATCHOGUE - Mod ranch, l/r, d/r, kit, 3 bd rms, 1 1/2 baths, huge fam rm, garage, landscaped lot, prime area, walk to schools, 6% mortgage, low taxes, immac. \$39,000. 654-4394.

ROCKY POINT - 4 bdrm Colonial, eik, 2 1/2 baths, fp, w/w carpeting, garage, wood deck, 1/2 acre, priv beach. 744-1156.

N SHIRLEY - Custom ranch, large l/r, new country kit, full bsmt, hot water heat, 2 car garage, appl, 2 mi from Lab. \$26,500 Price negotiable. 281-3605 after 6.

CENTRAL ISLIP - 3 bdrm townhouse, on corner near pool, all appl, incl central a/c, exit 57 LIE. \$31,000, firm. 234-5951 after 6.

SHOREHAM - Custom built Colonial, white cedar shake, w/w carpeting, 1 acre fenced, 4 bdrm, 2 1/2 baths, eik, patio. \$56,900. 744-2821.

MIDDLE ISLAND - Close to Lab, attractive 3 bdrm ranch, wooded 1/2 acre, carpet, a/c, appl and more, plus low taxes. \$33,750. 744-6772.

MIDDLE ISLAND - 3 bdrm, 2 baths, full bsmt, fam rm, w/w carpeting, fp, deck wooded, all appl, 1 1/2 acres, many extras. \$65,000. Ext. 3929 or 924-3761.

BAITING HOLLOW - 4 rm summer cottage, furnished for sale or rent, w/adjacent priv beach and golf course. 286-8356.

YAPHANK - 3 bdrm ranch on waterfront acre, den, fp, w/w rugs, bsmt, garage, mahogany deck and siding, insulated glass, redwood bldg. Low 60's. 862-6259 after 6.

ROCKY POINT - The Tides, 70' ranch on 1/2 acre, 3 bd rms, l/r, d/r, den w/fp, eik, full bsmt, patio, garage, 2 car pkg area, priv beach. \$45,000. Ext. 4605 or 744-6482.

BELLPORT/E PATCHOGUE - S of S Country, 2 bdrm, 1 1/2 baths, large l/r, large den/dining rm, full bsmt, attached 1 1/2 car garage, 150x150 well landscaped yard. Private beach rights. Needs work. \$37,500. 286-1768 eves.

#### For Rent

POCONOS - Chalet in priv community, near Lake Wallenpaupack, swimming, tennis, etc, week/week-end. 289-2159.

MILLER PLACE - 4 bdrm house, furnished, summer rental only, date and