

# the Bulletin Board

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## RUSSIAN SCIENTISTS VISIT BNL

Five scientists from the Soviet Union visited BNL on July 5 and 6 on the first stop of a tour of ten U.S. high energy physics facilities. While at the Laboratory the visitors talked with members of the staffs of the Cosmotron and AGS.

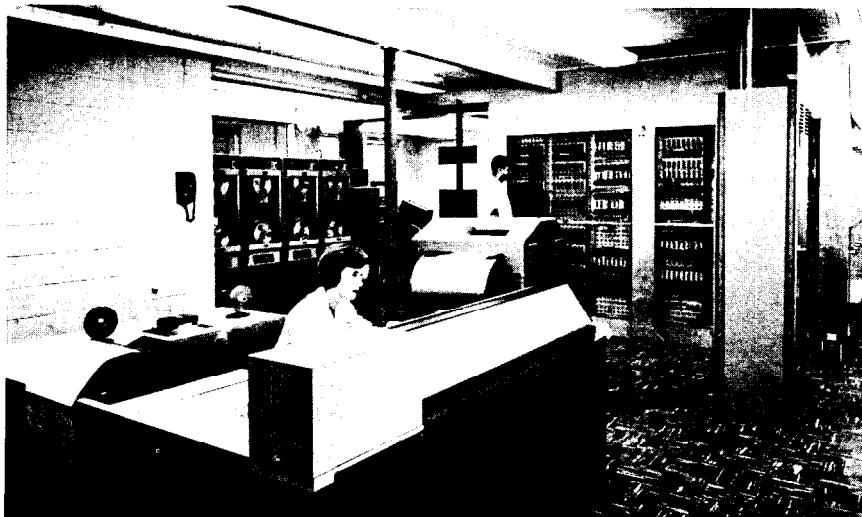
While the Soviet scientists are visiting high energy physics facilities in the United States, five American scientists will be touring U.S.S.R. controlled thermonuclear research installations. These visits represent the second exchange of visits of nuclear scientists from the United States and the Soviet Union. The first exchange took place in May when five U.S. scientists visited Soviet high energy physics installations at the same time that five Soviet scientists visited U.S. controlled thermonuclear research laboratories.

These exchanges grew out of a memorandum on cooperation in the utilization of atomic energy for peaceful purposes, signed by John A. McCone, Chairman of the AEC and Professor V.S. Emelyanov, Chairman of the State Committee for the Use of Atomic Energy, U.S.S.R. The memorandum provides for the exchange of visits and information in various fields of atomic research. The memorandum further provides that copies of all reports and the results of exchanges of visits will be given to the International Atomic Energy Agency, so that all member countries may share the information.

In the group that visited BNL last week were: V.P. Dmitriyevskiy, Physico-Mathematical Science, Consultant, Main Administration for Utilization of Atomic Energy; A.A. Kolomenskiy, Physico-Mathematical Science, Member Lebedev Physics Institute; I.K. Nevyazhskiy, Technical Science, Chief, Science Section, Radio Engineering Institute, Academy of Sciences; A.M. Stolov, Technical Science, Member, Science Research Institute of Electrophysical Apparatus, and V.V.Y. Vladimirskiy, Physico-Mathematical Science, Deputy Director, Institute of Theoretical and Experimental Physics, Academy of Sciences.

**COMING!**  
**OPERATION GET-TOGETHER NO. 3**  
**SATURDAY, JULY 30**  
**GET YOUR TICKETS NOW!!!**  
**The facts, Ma'm and Sir, on page 3.**

## MERLIN



For the past three years, work has been in progress under the joint cooperation of the Applied Mathematics Division and the Instrumentation Division aiming at the construction of a high-speed computer modeled after the MANIAC II at Los Alamos. The BNL computer, named Merlin, is housed in the southwest corner of the Administration Building. Since the original plans to copy MANIAC II were laid down, it became necessary to incorporate many changes and innovations to suit special needs peculiar to BNL.

Merlin is a high speed, general purpose, binary digital computer with four main components: a large, high-speed internal memory, an arithmetic section, a control section and auxiliary input-output equipments. The computer operates under the direction of internally stored programs (series of computer instructions). All computations take place in the Arithmetic Section which is also capable of performing logical operations. The Control Section governs the sequencing of the instructions of the program as well as that of the execution of the individual computer orders (such as add, subtract, multiply, divide). Both computer programs and operands are retained in the fast memory thus allowing the modification of programs as well as operands. The basic unit of information in Merlin, called words, consists of a sequence of 48 binary digits. These words may be fed into the Merlin memory via paper tapes, magnetic tapes and a typewriter. For each of these input modes, there is a corresponding output mode. In addition, Merlin is provided with an on-line fast printer which prints at the rate of 600 lines per minute, each line consisting of 96 characters.

Internally, the instruction of a stored program must be expressed in terms of a basic computer language peculiar to Merlin. The process of writing a computer program in this language is called coding. To simplify the coding process, a special system has been devised for the Merlin user which enables him to use mnemonically significant instructions. This system consists of an assembly program, a library of mathematical and utility subroutines, program debugging facilities and input-output routines. The library will contain the most commonly used subroutines. These subroutines may be automatically incorporated into the user's program.

(Continued on Page 2)

**MERLIN (Cont'd)**

Merlin has an extensive system of manual controls and monitors located in its control console. This is one of its many features not generally found in large, high-speed computers. With the aid of these controls, a skilled user at the console may intervene at any point in a program and monitor or alter information in any portion of the memory. This feature increases the programmer's ability to communicate with Merlin and manually control his program, thus increasing Merlin's versatility as a research tool.

In the recent past, several training courses in the use of the machine have been given by members of the Division's staff and additional courses as well as personalized assistance will be given in the future.

**SUMMER FOLK DANCE PARTY,  
JULY 21**

Liz and Neil Lark will lead an evening of folk dancing at the Recreation Building on Thursday, July 21, beginning at 8:00 p.m. About half the dances will be very simple ones, taught for those who have not danced before. The remainder will be favorites of the folk dancers who have danced with us here before, and will be only briefly reviewed. Both newcomers and experienced dancers should enjoy this program and everyone is invited to come. There will be no admission charge.

**ANNOUNCING — —  
THE BULL RING**

This will be an informal, table-hopping, beer-drinking forum, for the encouragement of conviviality and talk, of all varieties.

The first session is planned for Thursday, July 21, at the Brookhaven Center. The beer will start to flow at about 8:30 p.m. and run until midnight. The session is open to all Center members and summer visitors and students and their wives and husbands.

The Center provides an ideal focal point for BNL staff members and visitors to meet socially for that much-discussed but elusive and too infrequently practised "interdisciplinary cross-fertilization", both social and professional. It is hoped that the Bull Ring, convened perhaps weekly, will encourage such activities. At least, it will serve as an excuse for the enjoyment of high-quality draught beer, at low prices, in good company.

Come when you can, and stay as late as you can.

**BNL SAFETY RECORD**

**9 DISABLING INJURIES AT BNL thus far in 1960 (for a rate of 3.81 injuries per 1,000,000 manhours - compared to the All AEC Research Contractor rate of 1.67).**

**THEATRE GROUP MEETING****NOTICE TO MEMBERS  
8 p.m. Wed., July 13 at BNL Theatre**

This will be a brief but important meeting. Item 1. Terry Carlsson, Walter Hamilton, and Noel Corngold, Chairman, will report their selection of nominees for Theatre Group officers for the coming year. Elections will take place at the August meeting, tentatively set for Wednesday, August 17 at 8 p.m.

Item 2. Where and when to hold the annual Beach Party and the selection of a Beach Party Committee.

Item 3. The dearth of available personnel to stage "Dial M for Murder" in the spring was responsible for shelving it temporarily. This problem should be thoroughly discussed at this meeting and ways found to solve the shortage of directors and producers.

**WEEKLY EMPLOYEES MAY HAVE  
PAY CHECKS SENT TO BANK**

Arrangements have been made through the Fiscal Division enabling employees paid on a weekly basis to have their pay checks mailed regularly each week for deposit at the bank of their choice. Authorization forms may be obtained from the Cashier, 38 Brookhaven Ave.

**UMPIRES WANTED**

The BERA Slo-Ball leagues are in desperate need of additional help-officiating at weekday games at 5:15 p.m. **WE NEED YOU!** How about you summer students? Each umpire is paid \$2 per game. Call Dave Thomas, the umpire-scheduling chairman, Ext. 481. **PLEASE!**

**SUMMER STUDENTS WANTED**

Any students interested in playing softball, please call Gordon Danby, Ext. 2316.

**SUMMER STUDENT LECTURES BEGIN**

The 1960 Summer Student Lecture Series began on Thursday, July 7, with an introductory talk by Dr. Leland J. Haworth. The series, which will conclude on August 9, consists of ten talks on the projects of the scientific departments at the Laboratory. The lectures will be attended primarily by first-year participants in the Summer Student Program.

This is BNL's ninth consecutive Summer Program for Graduate and Undergraduate Students. The objective of the program is to give selected students an opportunity to share in and experience the life of a regional laboratory devoted to fundamental research. Summer students have been assigned to the Applied Mathematics, Biology, Chemistry, Cosmotron, Instrumentation and Health Physics, Nuclear Engineering, and Physics Departments.

This year there are seventy five summer students at the Laboratory; 27 graduate students and 48 undergraduates. 14 are women. Appointments are made on a competitive basis. Approximately 600 students applied for the program this year.

The participating students are majoring in the sciences or engineering and have completed at least two years of college. They represent 46 colleges and universities in this country. There are citizens of seven countries other than the United States within the group.

**FRENCH FILM STARS SIGNORET**

On Monday, July 18, BERA will present Academy Award Winner Simone Signoret in the Venice Film Festival Award film "The Adulteress."

Based on Emile Zola's "Therese Raquin", the film plot is real mayhem. Simone Signoret as Therese, the orphan, enters into a dutiful marriage with her sickly cousin, Camille. Lucky Camille who has one night a week out - a sort of French bowling night - brings one of his chums home. Matters go from bad to worse in a ghastly Gallic sort of way - but gripping! With Raf Vallone and directed by Marcel Carne.

7 and 9 p.m. at the Lecture Hall. Admission 75¢

**WANTED** - Volunteers to take tickets at one or more shows in the BERA movie series. Call J. Binington, Ext. 2294.

**LAST CHANCE FOR  
FIRE EXTINGUISHERS!**

Orders for Kidde 2½ pound dry chemical fire extinguishers close this Friday, July 15. Place your order, accompanied by payment, at Personnel Services, 58 Brookhaven Avenue. The group purchase price is \$12.50.

**TENNIS ANYONE?**

The 1960 BNL Tennis Tournament is about to get under way. Entries are now being accepted. Contests will be held in men's singles, ladies' singles, doubles and mixed doubles if enough entries are forthcoming. Competition will start the week of the 25th.

Deadline for entries will be Thursday, July 21st.

A tournament fee of 50¢ must accompany EACH entry. (Make checks payable to B.E.R.A.)

Name ..... Ext. ....

Check tournaments you wish to enter:

- Men's Singles
- Men's Doubles

(Partner ..... Ext. ....)

- Ladies' Singles
- Mixed Doubles

(Partner ..... Ext. ....)

Mail or bring application to Recreation Office, 3 Center St.

**SWIM CLASSES START**

Beginning this week, eight classes of beginners, intermediates, and swimmers are scheduled to take part in our seven week instruction program. Postings of dates, times and regulations are in the Swimming Pool and Gymnasium. Over 175 employees' children have been registered.

Children need only bring their bathing suits and towels. Showers, soap and lockers are available. Children should not bring watches, rings, or other valuables which might be misplaced. If they must bring these items they should be checked with the Lifeguard. It is suggested that a light lunch be eaten by children NO LATER than 12:00 noon. Candy, coke and orange soda are available in machines in the pool area for use after the classes. There is still time for a few more youngsters to join the program. Apply at the Recreation Office, Ext. 391.

**CHESS PROBLEM**

The answer to last week's problem is as follows:

WHITE BLACK

- 1. B x P check K x B
- 2. R - R 1 check Q - R 3 check

or

- (2. K - N 1 followed by 3. R - R 8 mate)
- 3. R x Q check K x R
- 4. P - N 8 (Q), and mate next.

**OPERATION GET TOGETHER COMING UP!**

DON'T BE AN



**COME TO OPERATION GET-TOGETHER SATURDAY, JULY 30**

Ticket sales for Operation Get-Together No. 3 are beginning to boom as the 3 p.m., July 22 deadline approaches swiftly. The picnickers are assured of an exceptional extravaganza of mirth and merriment. Every hour of the day will be filled with entertainment, games, contests, enormous quantities of food and beverages, and many surprise features.

Many new contest events are being planned by Chairman Harvey Marshak. They include a freckle contest for children and a crazy hat contest for all

comers. All freckles will definitely be analyzed for iodine content. In addition to these events a regular track program has been scheduled. The mother-daughter and father-son races will precede an extra special foot race for men. This latter race will be the one to watch. Trophies will be awarded to all winners. The entire contest program begins at 2 p.m. and will continue until the strains of marching music are heard, about 4 p.m.

A constant flow of varying rhythms will be heard throughout the afternoon and evening. The entertainment committee is planning a special period of music to eat by.

Four kiddie rides combined with the pony rides, cartoons and sprinkler area should make the day complete for all the children.

The food area will again be the center of activities. It is difficult for the average party-goer to conceive of the vastness of the food operation. However, when you consider quantities like 1500 lbs. of meat, 1000 doz. rolls, 3000 ears of corn, 45 kegs of beer and a truck load of Coca-Cola you can easily see this is a gigantic undertaking. Many volunteers will be needed to cook and dish out this amount of food and beverages. All BNL personnel are urged to fill out the volunteer forms that will be reaching them shortly.

ONLY EIGHT WORKING DAYS LEFT TO BUY YOUR TICKETS. TICKET SELLERS IN EVERY DEPARTMENT.

**THE BIGGEST BERA EVENT OF THE YEAR**

**PERSONNEL SERVICES**

The following items may be purchased at Personnel Services, 58 Brookhaven Avenue, at the present time:

- FILM (ALSO FILM PROCESSING)
- RADIO AND TV TUBES
- COFFEE

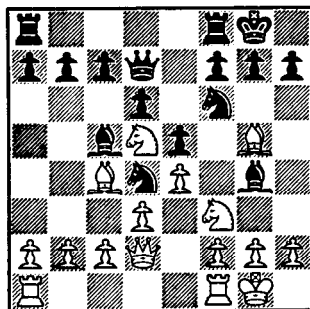
Any profit derived from the above sales is given to BERA.

**RECORD DANCE**

**RECREATION BUILDING, YORK LANE WED., 8:30 P.M. - ADMISSION 25¢**

Come on, all you guys and gals with the dancing feet.

We have music loud and sweet.  
Eight thirty is the time.  
Admission's fifteen plus a dime.  
The Recreation Building is the place.  
There's ice cold beer to cool your pace.



In this week's problem black and white are all even, man for man, space for space. Who is going to win, in 5 moves, black or white?

## GIRLS' BASEBALL

We are still meeting every Monday after work at 5:15 at the Brookhaven field (across from the Carpenter Shop). Everyone is welcome. See you there!

## BERA FISHING CONTEST

## Attention Brookhaven Fishermen!

Here is the latest tally in the BERA Fishing Contest: Weakfish, 2 lbs., 14 oz., James Klein; Bass, Large Mouth, 2 lbs., 2 oz., James Klein; Porgie, 3 lbs., Arnold Schroeder; Blackfish, 5 lbs., 2 oz., Fred Cermak; Flounder, 1 lb., 13 oz., Anthony Kokinelis; Fluke, 2 lbs., 4 oz., Alan Ravenhall; Bluefish, 2 lbs., 3 oz., Alan Ravenhall; Brown Trout, 12 oz., Kurt Jellett.

These are the only species that we have received entries for so far, and there are seven other species that have not been entered yet. So let's get some entries in these species and also try to top the above weights, which should not be hard to beat.

If your department or group does not have any more entry blanks, please call the Recreation Office, Ext. 391, and we will send you more.

## SOFTBALL STANDINGS

NATIONAL LEAGUE	Won	Lost
1. Thumpers	7	1
2. Metallurgy	6	1
3. Phoubars	6	3
4. Old Timers	6	3
5. Plant Main.	4	3
6. Dirty Sox	3	3
BROOKHAVEN LEAGUE		
1. Cosmotron	7	3
2. Potsareebies	4	6
3. H. Physics	3	4
4. Gnats	3	7
5. Medical	2	8
6. Derelicts	0	8

## Games This Week

TUESDAY - Metallurgy vs. Medical, Dirty Sox vs. Potsareebies

WEDNESDAY - Plant Maintenance vs. Health Physics, Thumpers vs. Cosmotron

THURSDAY - Old Timers vs. Derelicts, Phoubars vs. Gnats

REPORTERS - National League, R. Pearson Brookhaven League, E. Selleck

## DON'T BRING CHILDREN BEFORE 2:15 P.M.

The pool does not open for general admission until 2:30 p.m. daily. Parents bringing children to the Laboratory to swim are requested not to do so before 2:15 p.m.

## CLASSIFIED ADS

Deadline each week for BULLETIN BOARD Classified Ads is Friday afternoon at 3. Send ads to BULLETIN BOARD, 58 Brookhaven Avenue, or bring them to the Personnel Office, same address.

Ads must contain a signature and Laboratory telephone extension. If you do not want your name to appear when the ad is printed, put it in parentheses.

## FOR SALE

1958 MORRIS MINOR - convertible. Excellent cond. Must sell, leaving country. New top and tires. R&h. Ext. 2169.

1953 DODGE - 2 dr. Hardtop. Blue and white, V-8, gyro-torque, a very good buy. M. Goldberg, Ext. 2135.

1953 PLYMOUTH - 4 dr. sedan; R&h, good rubber, excellent running condition. \$275. Hazel Williams, Ext. 2205.

1951 CHEVROLET - good tires, very clean condition, power glide. L. Green, Ext. 789.

1959 RENAULT DAUPHINE - heater, windshield washers, low mileage, excellent cond., blue. \$1,300. J. Backes, Ext. 2341 or after 5:30 Atlantic 6-8224.

1957 MERCURY - 2 dr., green with white trim. Excell. cond. \$1300. Also 1949 Plymouth, 4 dr. grey, \$75. Call Atlantic 1-9628 after 6 p.m.

1952 CHEVROLET - 2 dr. \$190. Must sell. Owner leaving Lab. A. Lamborn, 2116.

1948 PLYMOUTH - good cond. R&h. Owner leaving Laboratory. \$60. Peter Mumford, Ext. 2444.

1941 CADILLAC - model 62 sedan. Best offer. Atlantic 6-8206.

1949 PLYMOUTH - runs. \$100. J. Handloser, Ext. 645.

19 FT BARBOUR BOAT - 35 h.p. Johnson elec. Fully equip. Boat and motor used one season. Atlantic 6-8624.

15 FT. CABIN BAY CRUISER - lap streak construction with 15 h.p. Evinrude, remote controls and steering. Complete with accessories. In water, painted and ready to use. Demonstration. Asking \$400. H. Zukowski, Ext. 2389.

SKIFF, 26' x 8'9" x 32" - lap streak const. All mahog. planking, bottom smooth planked with oak battens. Trunk cabin. Sleeps 4. Provisions for enclosed head and galley. 2 step rear cockpit with deck removable for easy access and cleaning. Save \$2,000 by installing motor and hardware yourself. Excellent for off-shore fishing or family cruiser. Will do 22k with 130 h.p. direct drive. Has 14" oak skeg. Must sell. Call Atlantic 9-0654 anytime.

HOUSE - 1½ story bungalow in Patchogue. 70 ft. by 150 ft. corner lot. Taxes \$386 per yr. Oil hot water heat with baseboard radiation, full basement, expansion attic. 5 rms. downstairs with glassed in porch, colored tile bath. 2 car garage. \$18,000. GRover 5-1275 after 5 p.m.

TV SETS - one 21 in. Muntz, \$35. One 21 in. Zenith, \$40. Ext. 2348.

KIRBY VACUUM CLEANER - several attachments, good condition. \$40. Also 12½ inch Muntz TV, needs repair, table model, \$10. Ed Potter, Ext. 2456.

WEIMARANER PUPS - AKC, 8 wks. old. Fully inoculated. F. Kleimola, Ext. 2344.

150 LB. MUSHROOM ANCHOR - 35 ft. of chain, entire rig 3 yrs. old. \$50 firm. John, Ext. 2376.

HI FI CABINETS - and matching speaker enclosure, \$25. Gas range, older model in working cond. Clean. \$15. Ext. 2255 or YA 4-6447.

GE WASHER - fully automatic. 4½ yrs. old. Perfect condition. Best offer over \$50. JU 4-6748. W.K. Johnson, Ext. 487.

HI FI EQUIPMENT - Bogen DB 130 35 w amplifier, needs minor adjust., orig. \$135, now \$30. Univ. model 315 15 in. triaxial speaker in unfinished modified Klipsh enclosure. Orig. cost \$180, will sell complete \$60, speaker only \$50. C. Porter, Ext. 385 or AT 9-0404 after 7 p.m.

CHILDREN'S FURNITURE - carriage-apt. coach by Silver Cross. Navy Blue. Orig. \$99, asking \$25. Large play pen and mat, cost \$30 asking \$10. Combination crib, play pen, car bed by Thayer, orig. \$32, asking \$12. Stroller, navy plaid with white fringe, \$3. Bathinette, white, good cond., \$7. Atlantic 6-8814.

KITCHEN TABLE - porcelain top with 4 matching chairs, \$5. Water heater coal stove with 30 gal. storage tank, \$20. Portable elec. washing mach. with hand wringer, \$10. Ext. 500.

AQUARIUM EQUIPMENT - two 10 gal., one 5 gal. tanks, heavy duty pump, filters, reflector light, net, rocks, heaters, tubing. All nec. equip. \$20. F. Walsh, Ext. 2184.

6 FT. FLEXIBLE SHAFT - heavy duty, practically new. Cost \$30, sell for \$10. F. Walsh, Ext. 2184.

## FOR RENT

APARTMENT - new 2 bedroom ground floor apt. with modern kitchen and garage. Easy commuting distance. \$130 per mon. Ext. 460.

## WANTED

GIRL'S BICYCLE - 28 in. M. Rudden, Ext. 2141.

SAILBOAT - interested in being broker in purchase of sailboat in sailing condition. Town class, Lightning or similar. Ext. 396.

BABY CARRIAGE - in excellent condition. Call Koppel, Ext. 466 or 504.

JEEP STATION WAGON - 2 wheel 6 cyl. Also 17 in. or 21 in. used tv set, working order. F. Walsh, ext. 2184.

## LOST

COLLEGE RING - gold with blue. Univ. of Mich. Lost July 6, vicinity of gym. Call Lomonosoff, Ext. 2261.

## CAR POOLS

Driver-rider wanted to join 2 party carpool from Port Jefferson area. Esther Semm, Ext. 2294.

Want to join carpool from area of Selden. C. Kralicek, Ext. 383.

Would like to contact anyone interested in starting carpool for fall semester to NYU evenings to be arranged. Jerry, Ext. 2394.