the Bulletin Board

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VISITORS' DAYS

TO ALL EMPLOYEES:

During our 1960 Visitors' Days, October 22, 23, 28 and 29, more than 19,000 persons viewed the exhibits and visited some of the facilities of the Laboratory. Demonstrating Brookhaven's major research programs and facilities to students and taxpayers is an important aspect of the Laboratory's responsibility to the public. Attendance has grown steadily to this year's impressive total, beginning with the first Visitors' Day in 1950, when approximately 2,000 persons came to the Laboratory.

The planning and operation of these Visitors' Days has become a major undertaking, requiring the close cooperation of our staff. I should like to express my sincere thanks to all who contributed – many a very considerable amount of time and effort – to the success of the 1960 Visitors' Days.

LELAND J. HAWORTH, Director

ELECTION DAY WORKING HOURS

The normal working hours for the Laboratory on Election Day, Tuesday, November 8, 1960, will be from 8:30 a.m. to 3:00 p.m. However, employees will be paid for the regular day.

Time cards for personnel working the normal day schedule will show 1500 (3:00 p.m.) as the time out for those leaving at 3:00 p.m. and immediately above it in the time-out column will be entered "E-2".

Supervisors of personnel in positions which require service on three shifts will schedule Election Day shifts for two hours in addition to the regular shift schedule but will not require the two additional hours to be worked.

Time cards will show the time actually worked and above the figure in the time-out column will be entered "E-2". Consequently, the two hours of time off for voting purposes will be at straight time for all employees.

BNL SAFETY RECORD

11 DISABLING INJURIES at BNL thus far in 1960 – the last one occurring on July 8, 1960. The long accident-free period since, now extending to 1,656,282 manhours, has brought our 1960 injury frequency rate down to 2.71 – compared to the "All AEC Research Contractor" composite rate of 1.58.

THE HOT LABORATORY



Technician about to enter contamination control canopy surrounding radioisotope facility during maintenance.

The precautions required for handling high levels of radioactivity in experiments often make it impractical to adapt an ordinary laboratory for this type of work. Radioactive material in quantities less than approximately one millicurie can be handled in ordinary laboratories by simple expedients such as using long tongs or a few lead bricks, or by working rapidly or at some distance from the material. However, the greater the activity level above one millicurie, the greater the precautions which have to be taken with regard to handling the material. In order to accommodate a wide variety of work involving as much as several thousands of curies of radioactive material, the Hot Laboratory was constructed at BNL about ten years ago. This laboratory, located in the building just east of the Research Reactor Building, was especially designed to accommodate experiments with highly radioactive, or "hot", material. The facility is operated by the Nuclear Engineering Department's Hot Laboratory Division.

Unique features of the Hot Laboratory include several "hot cells", some for metallurgical examination, others for chemical processing. Radioactive material is introduced into the metallurgy cells either through ports in the walls or by wheeling in a lead-shielded container through steel doors into an "isolation room". Inside, the material is handled with the familiar "master-slave" manipulators. To introduce radioactive material into the chemical processing cells a special lead shield having an opening at the top and a trap door underneath is loaded and placed over an opening in the roof of the cell. A port is opened on a vessel placed directly under this opening, the trap door of the shield is opened, and the radioactive material is dropped into the vessel.

(continued on page 2)

HOT LABORATORY - Cont'd.

Another useful facility is a pool of water in which radioactive material may be packaged or stored or used to irradiate other non-radioactive samples, the water serving as a radiation shield. Other special facilities include boxes in which chemical reactions can be carried out without the chemicals ever being exposed to the air. A variety of interesting auxiliary equipment is available.

Both fundamental research and service work for others is carried on at the Hot Laboratory. Examples of this work include studying the effects of radiation on plastics, observing what happens to small plants exposed to moderate amounts of gamma radiation during their growth, and learning how radiation affects properties of metals. "X-raying without an x-ray machine" is performed by using in its place the gamma rays from radioisotopes.

Other research projects include determining how to use the energy released from splitting uranium atoms to splice together other atoms into useful chemical compounds, seeing how to put to good use the radioactive fragments left when a uranium atom undergoes fission, and determining the fate of fission products released from uranium under certain conditions. Information gained from studying the effects of radiation on high explosives can be used to help explain how molecules are held together. Development by the Hot Laboratory of ways of producing new isotopes for medical research and industrial use has resulted in Brookhaven being the only source of supply in the United States for a number of isotopes.

New and improved methods of chemical analysis are developed, and routine chemical analyses of radioactive materials are performed at the Hot Laboratory. Permanent safe disposal of radioactive waste material is also studied by one group, while another routinely processes Brookhaven's radioactive sewage in such a way as to avoid contamination of the surroundings. New types of remotely operated equipment for work with radioactive materials are invented as needed. For example, a recent development is a relatively inexpensive miniature crane with a partial sense of feel.

Much of the work of the Hot Laboratory combines practical immediate goals with long-range basic and fundamental research. The value, therefore, is both immediate and for the future.

ARTHUR MURRAY EXHIBITION

Unfortunately, we were not able to secure Arthur and Kathryn to offer us a dancing demonstration, but we did make arrangements to have two of their professional instructors present at the Recreation Building on Thursday, November 10th at 8:30 p.m. They will exhibit the latest steps and answer your dancing questions. Free instruction will be offered. In addition, the latest A.M. dancing booklet will be distributed at no charge.

A course of instruction beginning the following Thusrday evening at 8:30 will be offered. It will consist of 10 lessons at a cost of \$1.50 per person per lesson. Bring your wife, husband, girl or boyfriend or come stag.

THEATRE GROUP READING

There will be a reading of J.B. at the home of Harold and Ruth Schwarz in Bellport on November 19 at 8:30 p.m.

SLO-BREAK BASKETBALL

The new league, with the revamped rules designed to adapt the game to meet our needs, is now forming. Team entries are being accepted at the Recreation Office. Plans are to start the season in mid-November. If your department doesn't have a team call G. Sabine on Ext. 391 and your name will be placed in a players' pool and funneled to one of the team captains.

Don't forget to attend the meeting on Thursday, November 3rd in the Recreation Office at noon.

DON'T PUT WATER IN LAB VEHICLES

All Laboratory vehicles have been winterized with a permanent type antifreeze. When on-site do not add water. Bring the car to the BNL Motor Repair Shop (Building 423) if additional coolant is needed. If necessary to add water when off-site please notify the Motor Repair Shop upon return.

SECOND ANNUAL BROOKHAVEN ART EXHIBIT



JULIAN LEVI

COMING - NOV. 2 THROUGH NOV. 9 Sponsored by BERA

Participating this year:
JULIAN LEVI, painter
PERLE FINE, painter
CONSTANTINO NIVOLA, sculptor
well-known artists from the
EAST HAMPTON-NEW YORK ART GROUP
OPENING: Wednesday Eve., Nov. 2 at 8 p.m.

FRENCH AEC HEAD VISITS BNL

M. Francis Perrin, High Commissioner of the French Atomic Energy Commission, visited the Laboratory on October 31. M. Perrin was given a tour of the AGS, and he talked with members of the BNL staff.

A Molecular Beams Conference will be held at Brookhaven on November 3, 4, and 5. The meeting sponsored by the Physics Department, will draw 75 people to BNL. Sessions will be held in the Research Staff Lounge.

JULLIARD QUARTET - NOV. 9

The first concert of the 1960-61 series will be held at 8:30 on Wednesday evening, November 9, at the Research Staff Lounge. Once again it is our privilege to hear one of the great string quartets now appearing before the public, the JULLIARD QUARTET. The Quartet consists of Robert Mann, first violin; Isidore Cohen, second violin; Raphael Hillyer, viola; and Claus Adam, cello, all of whom are on the faculty of the Julliard School of Music. The quartet has toured extensively and has made many recordings: it is considered one of the finest in the world. Their program will consist of quartets by Mozart, Bartok, and Sibelius.

Series tickets are available at \$7.50 (\$2.50 for children). Single admission for this concert will be \$3.00 and will be sold at the concert.

THE BULLETIN BOARD



BERA BOWLING

PURPLE LEAGUE

The Scotches took three points from the Designers to hold on to first place. W. Johnson had 182 - 501, Reamy 183; for the Designers Texiera had 186 and Sperry 210-516.

Fiscal, the money boys, nailed the Woodbutchers for 3 points. Hammering for them were Brouwer 185, Eberbach 179, Bohn 177, for the Butchers was Ruppert with a 179.

The Phoubars took the Dirty Birds for four points. R.P. Brown had 178 - 517, D. Vogt 192, 201 - 561, Cox 144. G. Kuzmack with 182-470 was the only bird that got away. The Bowl Aids, cellar birds for two years, finally broke out into the sunlight by taking 4 points from the Hopefuls. McIver 171, Walsh 148, Schulz 157, teamed up together to push the door open. The Hopefuls' H. Hoffman had a 155

BLUE LEAGUE

The Meteors still held first place, although they gave three points to the Snafus. For the Snafus, Sucher had 194, 509 series. Brightest light for the Meteors was Stelmaschuk with a 175.

The Techs moved into a tie for first place by taking three points from the Powermites. For the new co-champs, Larsen (League leader with a 247 high game) rolled a 202, 566 series but was followed closely by Hildebrand with a 211, 532 series and Gangamella with a 206, 529 series. For the Powermites Collier rolled a 171.

The Pacers picked up four from the Splitters. Led by Dexter's 204, 556 series, Earle's 191 and Rutan's 178 - From the Splitters, no comment.

The Nuclides took 3 from the Bubble Boys-For the winner, Green with a 195, 525 series, for the losers - Ferrante with a 203, 541 series and Scheliga a 192 game.

Blue Ball of the week to Leon Green, most valuable bowler, with a 195, 525 series for a gross of 227, 621 series.

GREEN LEAGUE

The Electrons, inspired by an old timer, who is a new member of the team, C. Tomesch, rolled a 171, 201, 205 - 575 series to take four points from the Old Timers III. Walker's 200 game and G. Hardman's 183 for the losers helped them along. The Fire Dept. rolled over the Old Timers II 3 - 1. J. Rhodes had 200 and T. Newham had a 503 series for the winners. T. Holmquist had a 508 series for the losers. The Old Timers I team was beaten 3-1 by the Black Birds. F. Green's 507 series for the Black Birds was a big help.

The Reefers lost the first two games, but came back in the third game with an 884 game series to split with the Mole-Stars. J. Kampe had a 197 and J. Scandizzo had a 202 - 527 series for the Reefers.

LADY KEGLERS COLUMN

Odds and Ends moved out in front this week by taking four points from the All Thumbs, while the agile Twinkle Toes (proven

by the expert conversion of the 5-7 split by Pat Towey and Judy Otto), lost three points to the Boo Boo's. Medigals, with a three man scrub team, proved too strong for the full strength of the Alley Kats, taking a complete victory of four points. APC's, with Grace Schiro converting the 5 - 10 and Barbara Garnier converting the 5 - 7, took three points from the Nightingales. High game for the night were: Grace Siemen 187, Grace Schiro 169, Elaine Daniels 167, Barbara Garnier 155, Rosemarie McCann 155, Pat Ferrigno 152, and Elinor Norton 152.

VOLLEYBALL LEAGUE

The time is drawing near when the gymnasium will be reopened for evening physical activities. Last season an informal inter-department volleyball league was formed and the games were played at 5:15 p.m. on Thursday evenings. Two courts were in operation simultaneously and games were completed by 6:30 p.m. Several groups have already indicated their desire to reorganize the league and get the season underway as soon as possible. Soround up your team, gather your ideas and come to a short meeting on Friday, November 4th in the Recreation Office at noon. If you can't field a department team, but would like to play, call G. Sabine, Recreation Office, Ext. 391

BROOKHAVEN DIVERS CLUB - OPEN HOUSE -

Have you ever wondered what it's like to be a skin diver? The Brookhaven Divers Club is holding Open House in the BNL Pool on Monday night, November 14, 1960 at 8 p.m. in order to acquaint Laboratory employees, guests and their families with the various activities of the Divers Club. Among the many attractions offered will be equipment displays and demonstrations, a film. tests of new equipment received by the club including a Porta-Sub and underwater camera, plus the opportunity for any interested party to don an Aqua Lung and descend to the bottom of the pool while under the supervision of experienced divers. The only equipment you'll need for this expedition is your bathing suit. The club members will donate the aqua lungs.

This winter the Divers Club will sponsor their third annual skin and Scuba diving class. Preliminary registration will take place at the Open House. Instructors will be available to answer any questions regarding the class.

Girls! Don't think that this is a "men only" sport, we'd welcome your support

For further information, contact Jean Lauer, Ext. 2390.

ANY MORE FOR ARCHERY?

Those of you who like to toy sometimes with bow and arrow, consider what wonderful places we have for it right on-site: no end of smooth grasslands, hills, open fields and woods safely away from other activities; a place indoors, roomy, heated and well lighted; and a benevolent BERA ready to provide wise counsel or aid with equipment when merited.

Come to the first meeting of the group at the Recreation Building, Friday, November 4, at 5 o'clock, and help start a club to provide a lot of fun for all.

ROVER - HOCKEY TICKET SALE

Once again we have been fortunate enough to make special arrangements with the management of the Long Island Arena in Commack for the purchase of discount tickets to the hockey game at almost half-price.

The games will be played on Sunday afternoon at 3:00 p.m. on November 20th. The action will pit the local favorites of the Eastern Hockey League, the New York Rovers, against the talents of the Johnstown Jets, one of the outstanding teams in the league.

Regular price \$2.50 – Our special price only \$1.40.

Tickets are now on sale at the Recreation Office in the Gymnasium. See G. Sabine and get tickets for yourself, your friends and family. Tickets will be sold while the supply lasts, but no later than Wednesday, November 16.

UPTON RIFLE AND PISTOL CLUB

The hotly contested large bore rifle match ended Sunday with a photo finish. Pete Colombo and Judd Diener closed the six matches with a dead tie for first place – an average of 180 out of a possible 200 for each. The winner had to be determined by the number of x's fired – with P. Colombo taking 11 to 8 and J. Diener placing second. Al Lukas came in third with 178.5 and P. Colsmann took fourth with 177.8. The trophies for both the large bore and the small bore matches that were held this summer will be distributed at the next monthly meeting.

The election of officers will take place at the next meeting – November 3rd. It is imperative that all members come out to cast their votes.

PHOTO BEGINNERS

A course of instruction in basic photography and dark room procedures will be given by a member of the Camera Club starting next Thursday, November 3, at 7:30 p.m. in the Recreation Building.

SKI CLUB NEWS

The first Ski Club meeting of the 1960-61 winter season will be held at 8:00 p.m. on Monday, November 7th in the lounge of the Recreation Building in the Apartment Area. This meeting will be organizational, so it is important that all interested persons try to attend. A ski film will be shown after the meeting. News Note! A recent development of extreme importance and great interest to club members will be revealed at this meeting! This development will bring smiles of pleasure to the faces of all avid skiers, so try to attend this meeting.

POOL SPECIAL

Those attending the pool on Friday, November 11, for an evening of swimming, will be offered an added attraction. Our own Skindiving Club has kindly agreed to put on a display of equipment and provide a short, interesting water demonstration. Come – see how it's done! Doors open at 7:00 p.m. The 15 minute demonstration will begin at 8:30 p.m.

WEEKLY SAFETY HINT



JERE AUSTIN, Safety Coordinator to the Hot Lab, adds this safety hint: "Don't mix hazardous waste materials with normal waste for disposal. All nonradioactive hazardous chemicals, toxic substances, flammables, pressurized spray cans, etc., should be separately placed and marked for disposal. (Safety Manual GS 4 Section G) Radioactive wastes should be placed only in containers marked specifically for this purpose."

"The human brain is like a freight car guaranteed to have a certain capacity, but often running empty.

- Sunshine Magazine

CLASSIFIED ADS

FOR SALE

1955 FORD V8 - Station wagon. Fair condition. \$525. S. Garrett, Ext. 2123.

1950 FORD V8 - Engine in good running condition. Body needs work. Best offer over \$60. Ext. 2151 or POrt Jefferson 8-0735 after 6 p.m.

1956 STUDEBAKER CHAMPION - Station wagon. Clean, excellent condition. \$600. BEllport 7-0522.

1960 CITROEN D19 - Black, 5000 miles. Used for one month in Europe and brought here to sell. \$2700. B. Bassett, Ext. 607 or 2477.

SPRITE AUSTIN HEALY '60 - Excellent condition. Low mileage. Reasonable. Ext. 312.

1946 CHEVROLET - 4 dr. Good running cond. 4 new tires, new plugs, points and muffler. Good 2nd. car. Best offer over \$50. Ext. 423. 1955 PONTIAC - 2 dr. hard top convert. R&h,

1955 PONTIAC - 2 dr. hard top convert. K&h, good rubber. \$495. Ext. 301-93 or POrt Jefferson 8-2568.

1954 FORD 6 - std. shift, 4 dr., r&h. Motor, transmission, suspension in very good cond. Body has some dents and rust. Inside very clean, car runs well. 17-18 mpg. 1 qt. oil per month. Best offer under \$300. Must sell fast. Bill Walsh, Ext. 481.

1955 CHEVROLET 210 - 4 dr. sedan, 6 cyl., std. shift, r&h. 1 owner, 39,000 mi. Excellent cond., asking \$600. G. Kinne, Ext. 593.

1957 AUSTIN HEALEY - model 100-6, 4 seater, 6 cyl. sports car. Equipped with r&h, overdrive and tonneau cover. Excellent cond. throughout, \$1650. G. Rogers, Ext. 481.

MGA - late 1959, only 7500 mi. Wire wheels, tonneau, luggage rack, white with red seats. Ext. 2129.

CLASSIC FORD LOOK WITH THUNDERBIRD PERFORMANCE - 1954 Ranch Wagon, 6 cyl., 2 dr., r&h, stick shift. 73,000 total mi., 40,000 on replacement engine. Paint job, interior condition? Standard for a 1954 car. 3 bills takes it. L.E. Fuller, Ext. 2363 or BEllport 7-1447.

HOUSE - split level. Beaut. 7 rm. on ½ acre wooded lot. Fireplace, large living rm., 3 bedrooms, ½ baths, laundry, private beach. Ext. 600 or SHoreham 4-9635.

HOUSE - 2 family. Centrally located in Patchogue. 5 rms. up and 4 down. 2 car garage. Dryer, dishwasher, refrig. Full cellar and tool shed. 40 Jennings Ave., Patchogue. Ext. 2453 after 3. After 5 ATlantic 9-1568.

HOUSE - quiet residential area. On landscaped plot 75x168. Large shade trees. 3 bedrooms, sunporch, tiled bath, oil heat, combin. windows and doors. Near school and village. Senix Ave., Center Moriches. \$9,000. ATlantic 4-0375 after 6 p.m.

HOUSE - Sayville residential area. 2 bedroom Cape. Expansion attic, full cellar, oil heat, attached garage, storms and screens. Extras. \$10,500. Call Casey SAyville 4-6652. SHOP MANUAL - for 1955-56 Chevrolet. Do your own repairs. —2.50. L. Belkin, Ext. 563. BABY GRAND PIANO - \$550. G. Munoz, Ext. 393 or JUniper 7-0711.

18 FT. THOMPSON - "Off-Shore Fisherman" 35 Johnson, Marine top and curtains. Fully equipped. Best offer over \$995. P. Towey, Ext. 602 or 682.

CIRCA 1955 ELECTRIC RANGE - 220 v., four burners, large oven. Good condition. \$50. Also gas range, 4 burners, large oven. \$30. J. Knapp, Ext. 495 or EMerson 3-6464.

METAL BED FRAME - Hollywood style. Never used. Goes to the highest bidder. A. Smith, Ext. 465.

ADJUSTABLE DRAWING TABLE - 42×31 , Steel base. 24 in. drawer and stool. \$20. Weitzel, Ext. 2261.

KENMORE AUTOMATIC WASHER - 10 lb. Controls water level, temp., complete timing cycle. Excell. cond. \$80. Jake, Ext. 2208.

17 IN. EMERSON TV SET - table model. Good working cond. Recently overhauled. \$50. Ralph G., Ext. 481.

DINING ROOM SET - 7 pc. modern, dark mahogany. Consists of table, 4 chairs, china cabinet, buffet. \$350 new, asking \$75. Good cond. W. Foltermann, Ext. 573 or BEllport 7-0460.

BABY HIGH CHAIR - blue and in good condition. Ext. 258.

COX TRAINER - with o.k. Cub .049A. \$7. Excellent condition, fine flyer. Can be adjusted to pilot's flying ability. Also McCoy .049 diesel. \$3. BEllport 7-0303 after 6 p.m.

H.O. TRAIN SET - 3 months old Tyco. 6-car freight; Oldtime "Pennsylvania" steam switcher with Universal Power Master duel pack (2½ amps.) 3 switches, rerailer & terminal track. Track for 4x8 ft layout. Also grass, trees, stores, houses, etc. On 4x8 ft partially landscaped board. Cost over \$125. \$80 or best reasonable offer. GRover 5-1285.

CAR POOLS

Would like to form or join car pool from W. Islip. G. Munoz, Ext. 393.

Driver to join car pool in vicinity Medford Ave. School, Patchogue. R. Kassner, Ext. 371.

FOR RENT

FURNISHED HOUSE - 2 bedrooms, fireplace, sunporch and all conveniences. Combination washer and dryer. South Country Road near Bellport village. Available for immediate occupancy. BEllport 7-0780 or GRover 5-1968.

ONE OR TWO ROOMS - All utilities. Kitchen privileges. Mastic Beach, 9 miles from Lab. \$10/wk. M. Koson, Ext. 323 or ATlantic 1-6237.

WANTED

FULLY AUTOMATIC WASHER - or washerdryer combination unit. Good working condition. 8 - 12 lb. load capacity. H. Halama, Ext. 2471 or YAphank 4-6785.

USED TV SET - and child's table and chair(s). P. Coppens, Ext. 650 or 510.

AMERICAN FLYER 2-RAIL TRACK - for deserving young man. Jack, Ext. 2165.