



Thelma Langhorn admires a studio picture of her actor-son while he appears with his T.V. mama on "That's My Mama."

Will The Real Mama Please Stand Up

When Thelma Langhorn, a registered nurse in BNL's Research Hospital, is asked about her cultural origins, she takes a deep breath and says, "Irish, Jewish, Dutch, and West Indian." She is also the real mama of Clifton Davis, the star of the new T.V. series, "That's My Mama."

Clifton is not the only famous member of her family, she comes from a long line of notables. Her grandfather, Jacob Simon Van Putten, was knighted by the Queen of the Netherlands. She was first introduced to her great uncle, Sir Edward Carson, in the ninth grade when she read about him in a world history book.

She was born Thelma Van Putten on St. Eustatius in the Netherlands West Indies. Her family later moved to St. Croix in the Virgin Islands, where she grew up. She has been living in Center Moriches since 1953. Before coming to the Lab in 1970, she worked at Brookhaven Memorial Hospital and Mather Hospital.

She works the midnight to 8 a.m. shift in Pavillion Four of the Research Hospital. She enjoys working there with the Parkinson patients because she had experience with this type of patient before. She remembers working with Parkinson patients before the development of L-Dopa as a treatment for the disease. "It was very different then," she recalls. There is a great difference in these patients before and after L-Dopa treatments, she says.

While her six children were growing up, Thelma found working at night ideal because it allowed her to be home with her children during the day. Now that her youngest child is 18 and her eldest is 30, she is hoping to be switched to a day shift.

She is always at home Wednesday evenings at eight to watch her son's show. "I have missed it only once and that was when I was travelling to Florida for a vacation," she says.

The first time Thelma saw the show was when she visited her son in California and

watched it being taped. At that time she had a chance to meet Theresa Merritt, the "other mama" in her son's life.

When "That's My Mama" premiered on television this fall, Clifton Davis came to New York so he could watch it with his family. He reserved a suite in a New York City hotel and invited his mother, grandmother, and his stepfather Junius Langhorn in for the evening.

Does her son act the same in real life as he does in the T.V. series? Only the real mama would know for sure and she says, "Yes, I would say he acts naturally."

Brookhaven Lectures: Alive and Well!

Perhaps one of the better kept secrets is whether or not the Brookhaven Lecture Series will continue. The answer is yes! While many veteran attendees can attest to the usefulness of this series, newcomers to Brookhaven might well ask, "why Brookhaven Lectures?" An answer is provided by reprinting a paragraph from the November 8, 1960 *Bulletin Board*.

Most of us at Brookhaven have wondered what the next person, the next laboratory or the next department is doing. What "they" do affects all of us. We are often prevented from knowing what goes on because each specialty has its own language and the rest of us may not be conversant with it. What we need is plain English by knowledgeable persons so that we can discuss and question and profit. This is the aim of the Brookhaven lecture series. It will also give us a chance to meet each other as scientists and to explore what we have in common, where we differ and how we bear on each other.

Yes, Virginia, there is a Brookhaven Lecture Series. New programs and new people, as well as the maturation of long-standing programs, provide new opportunities. Watch for details about the lecturers and lectures but reserve Wednesday evening, January 22, February 26, and March 26 for the next 3 Brookhaven Lectures.

—C. J. Shellabarger

Nuclear Power Reactors: An Undisclosed Peril?

Andrew P. Hull

Although nuclear fission reactors have been operated in the U.S. for thirty years without injury to the public, their safety is a continuing issue. Most recently it has been alleged, in an article in *The New York Times*, that the Atomic Energy Commission has "repeatedly sought to suppress studies of its own scientists that found reactors were more dangerous than officially acknowledged or that raised questions about reactor safety devices." Particular reference is made to unpublished studies of reactor accident consequences performed by scientists at Brookhaven National Laboratory. These were conducted to update the information contained in the 1957 AEC Report WASH-740, "Theoretical Possibilities and Consequences of Major Accidents in Large Nuclear Power Plants," which was largely based on studies made at Brookhaven.

Originally and for many years, nuclear fission reactors were operated by the AEC at its own facilities for the production of fissionable materials and radioactive isotopes, for research and toward the development of their practicable use as heat sources for the generation of electrical power. The first commercial nuclear power reactor went on line in 1957. Currently, some 52 power reactors are in operation and 58 more are under construction. The current versions are several times larger than their original prototypes. It may be conjectured that a malfunction of such a reactor might lead to many injuries or fatalities as well as to millions of dollars in property damage. The catastrophic dimensions of such conjectures are arresting and lead naturally to questions that those responsible within the nuclear industry and the AEC have made sufficient provision against their occurrence, and even that the economic and environmental advantages of nuclear power are worth the risk.

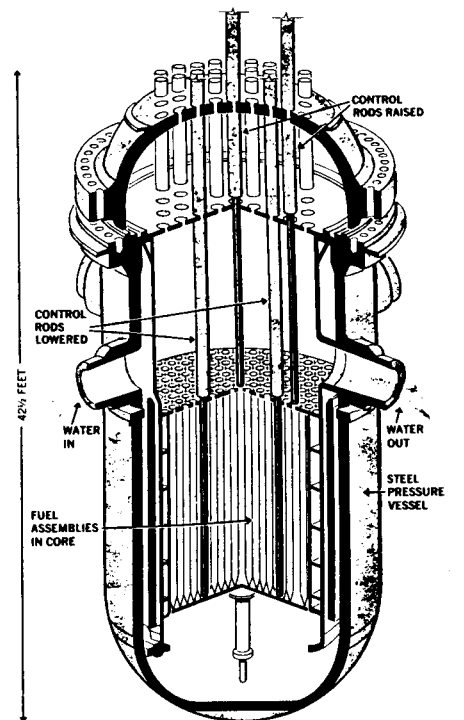
In addition to giving off useful heat, the fission process creates large amounts of radioactive products within the uranium fuel of a nuclear reactor. The protection of the public from the potential health hazard posed by these fission products is crucially dependent on their containment within the fuel or otherwise from reaching the environment in quantity in an uncontrolled manner. The fuel of a nuclear power reactor consists of many thousands of cylindrical individual uranium pellets, each about an inch long and one-half inch in diameter. These are arranged twelve-foot long zirconium alloy pipes, which are in turn assembled into fuel element bundles in the water-cooled and moderated power reactor, of the type currently most widely employed for electrical power generation in the U.S. It is generally agreed that the most likely, if not the only manner in which a significant quantity of radioactive fission products could escape from the fuel matrix and its cladding would be through its overheating and melting, following the sudden loss of the 200,000 or so gallons of water from the primary coolant water which surrounds the reactor core in a thick steel pressure vessel.

Although nuclear reactors are provided with quick shutdown devices in the event that a malfunction such as overheating and/or loss of coolant is sensed, when this happens about 6% of the operating power level remains as immediate "afterheat" from the radioactive fission products. Reserve supplies of water and devices for injecting them onto the core, the so-called emergency core cooling system (ECCS), are installed in large nuclear power reactors to enable them to cope with this afterheat in the event of a loss of primary coolant water. Additionally, the pressure vessel which surrounds the reactor core, as well as the associated piping and pumping system is in turn housed in a gas-tight outer containment shell, to contain most of the fission products should the ECCS fail to function as designed. Finally, large nuclear power reactors are sited in exclusion areas, sufficiently remote from nearby populations so that in the unlikely event of the maximum credible accident, the resultant off-site radiation exposures would be considerably less

than those leading to immediately adverse health effects.

The proponents of nuclear power argue that taken together, these features constitute a defense in depth unparalleled in any other current technology utilizing large amounts of potentially hazardous materials. The critics point to seemingly dire results of studies based on the hypothetical assumption that all or most of these features fail. In particular they have referred to the study performed under the auspices of the Atomic Energy Commission, largely by scientists at Brookhaven National Laboratory in 1957, to define the extent of the needed governmental insurance coverage under the Price-Anderson Act. It indicated that under such "worst case" assumptions (of a loss of coolant and the complete failure of protective features) a power reactor accident might lead to about 3,400 killed, 43,000 injured, and as much as seven billion in property damage, occurring at distances up to fifty or so miles away.

An update of this study was conducted at Brookhaven in 1964 as a preliminary to the renewal of the Price-Anderson Act. Again, it was directed toward "worst case" assumptions. Although information and techniques not available in 1957 made it possible to refine some of the calculations, the conclusions of this study were not greatly different from those of the original one. In his 1965 transmittal letter to the Joint Committee on Atomic Energy (which was at that time considering the Price-Anderson Act extension) then AEC Chairman Seaborg stated that with current reactors being substantially larger than those considered in the 1957 study, and assuming the same hypothetical releases of fission products, the theoretical damages would not be less and under some circumstances might be more than those indicated in the earlier study. He commented further that the increase in reactor size had been offset by additional safety features, so that the likelihood of a major accident such as that posed



Reactor Core

in the Brookhaven study was extremely low, lower than the remote probability originally estimated.

Human beings have continually been at some unavoidable risk from such natural phenomena as fire, flood and famine. More recently in time, additional such risks have been created by the potential failure or malfunction of large-scale technologies, however much of these have added to the length and enjoyment of life. The nuclear industry is unique only in that it has made a prior consideration of this risk an essential element of its decision-making process.

Such consideration involves two elements, the consequences of accidents, and their frequency. The critics of nuclear power seem to focus on the "worst case" large potential consequences of an accident and

(Continued on page 2)



Ed Hunter and friend.

Nature Befriends Man

It is very unusual for a Ruffed Grouse to walk up to someone and beg for food. Although, this is exactly what happened to Ed Hunter, Plant Engineering.

Now all he has to do is rev his engine and toot his horn and the grouse knows it's chow time. Normally she emerges timidly from the brush but she seems to accept Hunter as her provider because she ran to him the other day. The grouse is a "she," says Hunter, because of the blurred band around its tail. Males have a distinctive tail band.

"This is very unusual behavior for a Ruffed Grouse," claims Hunter, who is an avid bird watcher. They are normally very wild birds and wary of man. They cannot be raised in captivity and as far as he knows, this is the first time a Ruffed Grouse has acted so tame.

The grouse is equal in size to a small chicken and has stubby wings like a quail. It is known for the distinctive beating sound it makes with its wings during mating season. The Ruffed Grouse, sometimes called a partridge in the northern U.S. and a pheasant in southern areas, is a prized game bird. This could explain its wary nature.

The grouse is a territorial animal, says Hunter, so rather than migrate it stays in a defined area all year round. The grouse who befriended Hunter has picked the Lab site as its territory.

BERA Sales & Services

With the Christmas Season arriving, Film Service would like to take the opportunity to remind you to stock up on your film and flashcubes.

Come in and see our wide selection of cameras and camera cases, picture frames in all sizes, photo albums, slide viewers and trays, photographic books, calculators and numerous other photographic equipment.

While you are here, you may like to take advantage of our Christmas Sale, which will be in effect from Mon. Dec. 16 thru Fri. Dec. 20. Included in this special holiday sale is the Argus 110 Pocket Instamatic Kit, regularly selling for \$22.99 now only \$17.99. This kit comes complete with the camera, roll of film, flash cube and wrist strap. We also have magnetic photo albums in beautiful styles and colors with 8 self sticking pages. These albums regularly sell for \$2.29 each but can now be purchased at 2 for \$3.99. In addition we have 3M-126 color print film with processing included and returned to your home for \$2.79 for 12 exposures and \$3.79 for 20 exposures.

And for those who would like to have a 5x7 color enlargement made from your favorite slide or negative will now receive the first 5x7 for 99¢, and the second one from the same slide or negative for only 1¢. These 5x7 enlargements regularly sell for \$1.75 each.

So why not make your Christmas shopping a little easier this year and take advantage of our one-week-only holiday sale.

Film Service, located at the cafeteria is open from 7:30-11:15 and 11:45-2:30.

Sick Leave Accrual

Effective January 1, 1975 the anniversary date for the purpose of monthly sick leave accrual will be the first of each month for each employee.

For example: an employee scheduled to accrue 1½ days of sick leave credit on January 16, 1975 will be given that credit on January 1, 1975 and again on the first day of each subsequent month. Since the date is being advanced there will be no loss of accrual credit.

This common sick leave accrual date simplifies the machine accounting required for compiling sick leave credit and computing sick leave reimbursement pay.

Arrivals & Departures

Arrivals

David C. Judkins DAS

Departures

Dirck Benson, Jr. Chemistry
 Juanita M. Fields Physics
 James A. Lee Accelerator

Changes in TIAA-CREF Allocations & Salary Reduction Agreements

Employees participating in the AUI retirement plan are reminded that allocation changes for TIAA-CREF premiums may be made as of January 1, April 1, July 1, or October 1.

In addition, effective January 1, 1975 employees may revise their current salary reduction agreement to change the amount of extra voluntary contributions to the regular or supplemental retirement plans.

Individuals wishing to make allocation or salary reduction agreement changes should contact Personnel Services, ext. 2881.

Service Awards — December

Twenty-Five Years

Richard P. McKenzie Hlth. Phys. & Safety

Twenty Years

Victor P. Bond Directors
 Gerald A. Dupre Accelerator
 George M. Guydish Plant Engrg.
 Gerald C. Kinne Directors
 Carl W. Wingard Supply & Materiel

Ten Years

Christopher W. Beattie Accelerator
 Wesley E. Buxton Accelerator
 Norman R. Carlson Accelerator
 Johanna D. Cotter Physics
 Margaret Fleming Physics
 Frank R. Garafola Physics
 Robert G. Horton Accelerator
 Irwin Lewis Applied Mathematics
 John F. Marto Medical
 Gerald J. Paul Applied Mathematics
 Peter Thieberger Physics
 Joseph F. Sheehan, Jr. Accelerator
 F. William Studier Biology

Reactor Safety (Continued)

to neglect the relative infrequency of their occurrence, that is the extreme improbability that in the event of a melt-down all of the protective features of a nuclear power reactor might successfully be breached and large amounts of radioactivity thereby reach the environment.

Lacking a sufficient data base at the time, the authors of the 1957 Brookhaven Report obtained estimates of the probability of a major reactor accident from informed experts. These ranged from one chance in 100,000 to one in a billion per year per reactor. They concluded that under their "worst case" assumptions applied to 100 reactors, the chances of a person being killed in any year by a reactor accident would be less than one in 50 million. By contrast, they also observed, that the present odds of being killed in any year by an automobile accident were about one in 5,000.

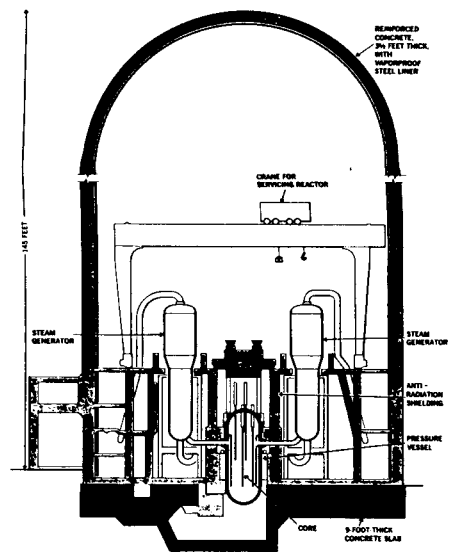
The results of a far more thorough reactor safety study than the 1957 Brookhaven effort have only recently been published by the AEC as report WASH-1400. Funded in the amount of \$3,000,000 by the AEC, it was conducted under an independent charter granted by the AEC to Dr. Norman Rasmussen of MIT. This study considered the probability (that is the likely frequency) of a variety of reactor accidents as well as their consequences, in order to arrive at quantitative assessment of risk from such accidents. Some major conclusions from this study were that the melting of a reactor core does not necessarily result in an accident having large public consequences; that as the consequences of a meltdown increases their likelihood decreases; and that for the most likely course of events following a meltdown, the number of expected fatalities is much smaller than those that commonly occur in accidents such as fires, explosions and crashes of commercial jet airplane.

Expressed numerically, the probability of the most likely core melt accident was found to be one every 17,000 years per reactor with a public risk of no fatal effects, only minor injuries (a few thyroid nodules) and off-site property damage in the order of \$100,000. For a larger but more unlikely accident, which might happen once in a million years per reactor, the incidence of latent cancers was calculated to be 450, of thyroid illnesses 12,000, and the extent of property damage about 2 - 3 billion dollars. The consequences of an unlikely accident comparable to that assumed in the 1957 Brookhaven Report were found to be much less severe than originally postulated (1/50 as many facilities, 1/200 as many illnesses and 1/5 as much property damage.) Numerical comparisons of the probability of fatalities occasioned by other man-caused and natural events with those for power reactors are made in the following table taken from the Rasmussen study.

No responsible proponent of the utilization of nuclear fission reactors, either as sources of heat for the generation of electricity or as sources of radioactivity for scientific research, will claim that they are completely safe and without peril whatsoever. In the absence of an established actuarial record of nuclear reactor safety, occasioned by the nonoccurrence of significant malfunctions on which to base it, the assessment of risk must depend on informed judgment. So must the amount of effort allocated to nuclear safety studies and research, the extent and types of safety features required in reactor design and the specification of their safe operational limits.

As indicated by *The New York Times*, the record discloses that there have been internal differences about these judgments within the Commission's ranks, as well as within the industry. In view of the established safety record of nuclear power reactors and of the confirmation by the Rasmussen study of the extreme unlikelihood of a major reactor accident, it is difficult to conclude that because these differences were not aired on the press, significant perils were thereby intentionally concealed from the public.

A number of recent studies, in addition to that led by Dr. Rasmussen, suggest that the overall risks from nuclear power, although not zero, are already far smaller than those occasioned by the near-term alternate practicable sources of heat for the generation of electricity, as well as being smaller than other risks (such as those in the preceding table) which appear to be publicly acceptable to the extent that there is no apparent large outcry or demand for their reduction. If accepted on this basis, nuclear power reactors can do much to balance the current domestic energy resource deficit of the United States and to move it toward energy self-sufficiency, with minimal public risk or environmental degradation.



Reactor Containment

Probability of Major Man-Caused and Natural Events

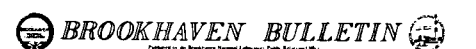
Type of Events	Probability of 100 or more Fatalities	Probability of 1,000 or more Fatalities
Man-Caused		
Airplane Crash	1 in 2 years	1 in 2,000 years
Fire	1 in 7 years	1 in 200 years
Explosion	1 in 16 years	1 in 120 years
Toxic Gas	1 in 100 years	1 in 1,000 years
Natural		
Tornado	1 in 5 years	very small
Hurricane	1 in 5 years	1 in 25 years
Earthquake	1 in 20 years	1 in 50 years
Meteorite Impact	1 in 100,000 years	1 in 1,000,000 years
Reactors		
100 Plants	1 in 10,000 years	1 in 1,000,000 years

Holiday Food Service

The Vended Food Service in Building 912 will be open at all times, and will be serviced regularly throughout the Christmas and New Year's Holidays.

The Center Club Snack and Beverage Bar will be closed on Tuesday and Wednesday for two weeks, December 24th, 25th, 31st and January 1st.

The Cafeteria will close at 2:00 p.m. December 24th and be closed all day on December 25th and January 1st.



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A Reef-Eating Starfish

Has nature gone berserk? That is what some scientists thought when a certain species of starfish was found eating coral reefs. On Sunday, December 15, at 7:30 p.m. on Channel 13 NOVA will take a look at this strange starfish in "The Red Sea Coral and the Crown-of-Thorns."

The film reveals the findings of a group of scientists who set up a platform in the middle of the Red Sea to study the starfish. By studying the crown-of-thorns starfish under non-plague conditions, they have discovered its normal place in the ecology of coral reefs and conclude that nature has not gone berserk after all.

Attention was first focused on the crown-of-thorns in Australia where it was discovered that the starfish was eating the Great Barrier Coral Reef into extinction. Soon after, reports of the same kind of disaster came from all over the world.

If you miss the Sunday showing of NOVA you can see it on Tuesday, December 17 at 8:30 p.m. on Channel 21.

Use Caution When Jumping Batteries

Build up of hydrogen gas in a vehicle's battery can cause an explosion if care is not taken when using booster cables to start a vehicle with a dead battery. The debris and acid thrown in such an explosion may result in acid burns, cuts, or damaged clothing.

The following tips can help reduce battery jumping accidents:

1. Remove cell caps from both batteries during jumping operations to vent trapped gas.
2. Determine whether the car to be aided has a positive or negative grounded electrical system. In a positive ground system, the positive battery terminal is connected to the engine block or chassis.
3. Connect both cables to the live battery first.
4. Connect the proper cable to the dead battery terminal which is not grounded negative-to-negative or positive-to-positive).
5. Connect the remaining cable to a convenient chassis or engine block location away from the battery and away from the carburetor.
6. As an added precaution, cover the battery with a heavy material, such as carpeting, while making connections.

Soccer

Ken Batchelor

After three weeks in the Winter Indoor League, the unbeaten AGS team leads the league followed by DAS and Medical. Last year's winning Physics team is finding the going tough this year with one of their players transferred to DAS and another on an extended visit to Russia. However, the teams are very well matched with the defense on top for the most part - only eleven goals have been scored so far, that is less than one per game played. We still welcome players to add to existing team rosters, so any one interested in playing should come along on Friday evening at 5:30 p.m. in the gymnasium.

League Table	Goals				
	W	T	L	F	A
AGS	4	2	0	5	0
DAS & Medical	2	3	1	3	5
Biol. & Chem.	1	2	3	3	4
Phys. & App. Math.	1	1	4	0	3

Bank Notice

The on-site branch of Bankers Trust of Suffolk will be open from 10 a.m. to 3 p.m. on Tuesday, December 24.

Selected Reading

- Amer. Sci. 62, November-December 1974
 Behavior programs and evolutionary strategies. E. Mayr. 650-9
 Thermal alteration of aquatic ecosystems. J.W. Gibbons and R.R. Sharitz. 660-70
 The universe as home for man. J.A. Wheeler. 683-91
- J. Amer. Med. Assoc. 230, November 18, 1974
 The Gheel Experience: Eternal spirit of the chainless mind. C.D. Aring. 998-1001
- Sci. Amer. 231, December 1974
 Eyewitness testimony. R. Buckhout. 23-31
 The mystery of pigeon homing. W.T. Keeton. 96-107
 Counterfeiting in Roman Britain. G.C. Boon. 120-30
- Science 186, November 22, 1974
 Détente: Travel curbs hinder U.S. - U.S.S.R. exchanges. D. Shapley. 712-15
 Energy "blueprint" sees little R & D impact before 1985. R. Gillette. 718
- Science 186, November 29, 1974
 Soviet-American copyright deals: Better where barter is possible. J. Walsh. 805-7

Bowling News

Grace Fales

Red League

Lucky Strikes continue to lead the League with a record of 98-34, followed by the Old Timers with 87-45. High gross series for the night went to E. Malcolm 678, J. Carroll 692, E. Reams 683; J. Scesny rolled a 208/217/615 scratch series. Congratulations to all for earning their Club Awards. Other highs were J. Carroll 234, E. Malcolm 226, R. Adams 201, B. Buzzeo 202/207, R. Larsen 213, and W. Kristian-son 215.

Green League

Congratulations go to L. Jacobson 200/211/604, and J. Ferrero 224/192/606, both earning their Club Awards. Other 200's for the night were E. Sperry 200, J. Cain 221, J. Berech 200, and K. Riker 200.

Pink League

11/26: C. Van Noy bowled three beautiful games - 181/218/194. Other highs were H. Caisey 187, B. Jellett 184. Nice going, girls! 12/3: Highs for the night were M. Stoeckel 176, C. Van Noy 192, B. McGonigle 173, and B. Jellett 170. Good to see K. Hunt bowling again.

Black and Blue League

High games for 12/4: Frank Costello 235, Joe Mayeski 206, Rosalie Piccione 192, Wilma Ericksen 185, Nancy Mayeski 179, Jean Sells 175, and Pat Lebitski 164. High gross pots were won by Jean Sells 241, and Howie Bell 239.

Cafeteria Menu

Week Ending December 20, 1974

- Monday, December 16
 Cream of Mushroom Soup
 Chicken a la King on Rice 1.10
 Cheese Omelet & 1 Veg. .95
- Tuesday, December 17
 French Onion Soup
 Chinese Pepper Steak on Rice 1.20
 Roast Fresh Ham & 1 Veg. 1.15
- Wednesday, December 18
 Split Pea Soup
 Breaded Flounder Filet & 1 Veg. 1.10

- Cafeteria Christmas Special
 Cup of Soup or Small Juice
 Choice of:
 Standing Steamship Round
 w/Oven-browned Potatoes & Cut Green Beans
 or
 Baked Ham
 w/Sweet Potatoes & Mashed Turnips
 Apple or Pumpkin Pie Small Beverage
 \$1.87 plus Tax

- Thursday, December 19
 Cream of Chicken Soup
 Macaroni & Chopped Beef 1.00
 Barbequed Spare Ribs & 1 Veg. 1.20
- Friday, December 20
 Fish Chowder
 Broiled Filet of Cod 1.00
 Braised Beef & 1 Veg. 1.20

Official & Special Events

- Tuesday, December 17
 West Point Cadets Tour
- Wednesday, December 18
 Navy Meeting - 7:30 p.m., Brookhaven Center
 Trustees Committee on BNL
 Concert has been cancelled
- Thursday, December 19
 L.I. Bone Metabolism Group Meeting

- Tuesday, December 24
 Half Holiday
- Wednesday, December 25
 Holiday

Christmas Chorus

Rehearsals are now being held at Berkner Hall between 12 noon and 12:30. The date of the next session will be Tuesday, December 17.

Tentative plans are for the chorus to sing in the Cafeteria Lobby and at the Research Hospital during the pre-Christmas season.

Any newcomers are welcome to join the group.

Men's Volleyball

The standings after the first round of play are:

	Won	Lost
Cool Tools	14	1
Atom Spikers	10	5
Spikers	8	7
Circuits	6	9
Foot Faults	4	11
No Names	3	12

Classified Advertisements

Placement Notices

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

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

54. REGISTERED NURSE - Shift assignments. Medical Department.
55. SECRETARY - Internal Audit. AUI.
56. TECHNICIAN - Experienced in analytical chemistry. AAS degree or equivalent desirable. Health Physics & Safety Division.

Autos & Auto Supplies

- 55 FORD - Mint cond, 50,000 orig mi. \$350. 281-1432, 281-3626.
- 13" HUB - 4 hole, valve stem. \$2.50. Jake, Ext. 4532.
- 69 YAMAHA - 305cc chopped, front end ext, peanut tank molded 1/2" rake, custom made seat, hwy bars, Z-bars. Pat, 924-8766.
- 39 FORD - 2 dr, classic, w/extras. \$1000. Howie, Ext. 3531, PA7-4363.
- TIRES - 2 snow 8.00x14, \$10 ea; 1-7.75x15 w/rim, \$15; 5-hole (like new) 4 w/rims 6.50x13, \$10 ea. Pat, 924-8766.
- 73 YAMAHA - 175cc Enduro, low mileage. Asking \$575. 924-4228.
- 1-14" CHEVY WHEEL - \$4. Ext. 2041.
- 66 CHEVY VAN - 230cc 6 cyl, auto trans, 41,000 orig mi, excel cond, must see. \$950. 281-4646, 8:30-5.
- TIRES - Dunlop recaps, 7.75x14, excel wear. \$3 ea. Bill, Ext. 4249.
- 2-15" GM RIMS - 5 lug rims, std. \$6 ea. 281-7873.
- 2-13" RIMS - 5 holes. \$7. O. Booker, Ext. 4719.
- J78-15 TIRE - Good cond. \$12. John, Ext. 2242.
- 69 850 FIAT SPIDER - Low mileage, 32 mpg, needs body work. 286-0880.
- 65 VW - Running, good tires, new rings, just inspected & OK. \$200. Ext. 2249, 281-4871.
- 64 FORD VAN - Good cond. Steve, Ext. 4679, 929-4787.
- 65 VW SEDAN - Runs well, good cond. \$300. Ext. 4238, 286-3509.
- 2 TIRES W/MAGS - F78-14 custom pwr cushion poly-glas belted, 5 lug (Chrysler, Plymouth, Ford). \$5 takes all. HR3-2523 after 6.
- 74 VEGA GT HATCHBACK - Low mileage, runs well, used very little, must sell. 588-4703 after 5.
- TIRES - New E70-14's on rims, fits Chevy, Ford or Chrysler. \$50. 588-4703 after 5.
- 2 CHROME RIMS - 14" Ford 5 hole steel reverse. \$25/pr. Frank, 744-8765.

- 2 BBL CARB - 6 cyl Rambler, \$7; 5 hole VW wheels, 2/\$5; 12v gen for GM cars, Chevy, Pont, \$5 ea. Bob, Ext. 4652, 289-0357.
- 69 CHEVY KINGSWOOD ESTATE STATION WAGON - Ps/pb, air cond, V8. Asking \$795. Ext. 4810.
- MINI TRAIL BIKE - Gemini 80cc, 4 spd, oil injection, loaded, new tune up, excel cond. Rhodus, Ext. 3284, 924-3522.
- 2 W/W SNOWS ON RIMS - H78-15, good cond, will fit most full size GM cars. \$30. 475-8079 after 6.
- 72 HONDA CB350 MOTORCYCLE - Low mileage, excel cond, extras, kept in garage. \$700. Ext. 4113, 929-6157 eves.
- 70 BUICK ELECTRA CONV - Excel cond, ps/pb, pwr seats & windows, a real luxury car, air cond. \$2075. Carsten, Ext. 3593.
- 4-14" NEW FORD RIMS - \$15. Jimmy, Ext. 2957.
- TIRES - 4 new Firestone 500 w/w steel belted radials, HR78-14. 2/\$80, 4/\$150. Jimmy, Ext. 2957.
- TIRE - 5.60x15 continental, slightly used. \$8. F. Paf-frath, Ext. 4407.
- USED TIRES & RECAPS - Most sizes. Ken, 289-8212 eves.
- SET CLEATED SNOW TIRES - H70-15. \$40/pr. Ext. 2238.
- 60 CORVETTE - 4 spd 292, 2 tops, good mech cond, needs body work. \$2000. 289-0487.
- 72 CADILLAC COUPE DE VILLE - \$4700 or best offer. 475-2656 after 5.

Boats & Marine Supplies

- CAST IRON MUFFLER - For sm marine eng. \$15. Gordon, Ext. 4613.
- COMPASS - "White Corsair," used but accurate, 4 1/2" diam. New price \$62, now \$15. Jack, Ext. 4087.
- 16' PEN YAN LAP SIDE - 40 hp Johnson w/controls & boat trailer, very good. \$500. Howie, Ext. 3531, 727-4363.

Miscellaneous

- SEWING MACHINE - Portable, dial and sew, heavy duty, buttonhole and zig zag attachments. \$35. 286-9152.
- COCKTAIL TABLE - W/2 matching end tables, Medit, now \$155; swivel rocker, red velvet, \$50. 286-8517 after 5:30.
- WINE RACK - Wrought iron, 67 bottle size. \$50. 286-8517 after 5:30.
- TABLE TENNIS ANYONE - Regulation size table & access. \$35. Ext. 4278, 751-0130 eves.
- 20 GAL AQUARIUM TANK - Pump, light, filter, wrought iron stand. \$35. 475-6938.
- DINING RM TABLE - Blonde, formica-like top, blk metal legs, 3 1/2'x5', seats 10 w/2-12" leaves, good cond, avail 12/27. \$25. 941-4562.
- POOL TABLE - 8' w/all access. \$115. 924-6972.
- CAMERAS - Minolta auto cord 2 1/4 sq, 3.5 lens, many access, \$60; also Speed Graphic, 4x5, 2.5 lens, \$50. Bernholz, Ext. 3354.
- WHITE FIGURE SKATES - Woman's size 6, excel cond. \$7. Ext. 3499, 732-1913 after 5.
- TAPE RECORDER/PLAYBACK SYSTEM - Akai model M-10, 2 microphones, 25-7" reels w/tape, like new. Howie, Ext. 3531, 727-4363.
- CHRISTMAS TREES - Freshly cut Balsams from New Hampshire, \$3-\$7, E. Patchogue, 475-1844.
- BOY'S 26" BICYCLE - Like new. \$20. Bob, Ext. 4679.
- SKIIS W/CABLE BINDING - \$5; woman's ski boots, size 7 1/2, \$18; exercise bike, \$25. Jack, Ext. 2485, 473-8060.
- FM ANTENNA - \$5; 2 bikes, 1-26" girl's, 1-20" girl's, need little work, make offer. Jack, Ext. 2485, 473-8060.
- REG 8 MOVIE OUTFIT - Camera, projector, editor, splicer, screen, lights, good cond. Make offer over \$70. L. Goodman, Ext. 3462.
- UPRIGHT CONSOLE PIANO - Kohler-Campbell, good cond, approx size 42" h x 27" w x 60" l. Ext. 2311, 589-6069.
- OSCILLOSCOPE - 5" screen Dumont 208-B, AC only, asking \$30; Bell & Howell design console, has DC supply & sine square wave generator, only \$50. Don, Ext. 4576, 281-6160.
- TELESCOPE - For serious astronomer, Mizar Model H-100 reflector w/extras. Will sell \$150 or best offer. Don, Ext. 4576, 281-6160.
- GUITAR - Yamaha Model FG-230, 12 string guitar w/ case. Orig \$225, sell \$125. Don, Ext. 4576, 281-6160.
- CONVERTIBLE COUCH - Cloth material, reasonable cond. Asking \$50. Bob, Ext. 4551, 289-2159 eves.
- AIR COND - 5000 BTU, for casement window, RCA Whirlpool, excel cond. \$180 new, \$100 firm. Wayne, Ext. 3389.
- AIR COND - 5000 BTU, for casement window, RCA Whirlpool, excel cond. \$180 new, \$100 firm. Wayne, Ext. 3389.
- CARPETING - 12'x24', royal blue, 100% wool, very good cond. Shelley, 698-7178 after 6.
- INFANT DRESSING TABLE - Walnut brown wicker w/4-15x15x4 bins & safety strap, folds for storage, excel. Saxon, Ext. 3435.
- BABY CARRIAGE - "Perego" coach, converts to car crib, navy blue, white lace, new cond. \$40. Saxon, Ext. 3435.
- MEDIT/SPANISH BEDRM SET - Dbl bed, triple dresser, armoire, 2 night tables, 2 mirrors. \$750. Barbara, Ext. 2902, 588-5537.

Classified Advertisements

MINI BIKE - 1973 Gemini, 80cc, 4 spd, excel cond. Rhodus, Ext. 3284, 924-3522.

MALTED MILK MACHINE - \$5; elec carving knife, \$7; elec knife sharpener, \$3; all good cond. Bob, Ext. 4652, 289-0357.

MAGIC CHEF - 30" elec range, coppertone, 1973 model, excel cond. \$100. 928-3667.

REFRIG - Frigidaire 11.6 cu ft, 65 lb freezer, copper color, excel cond, \$100; bicycle, men's 3 spd, \$15. Ext. 3224.

3 PC CORNER SLEEP SET - Consists of 2 dividers & corner table w/built-in clock radio. 289-0201.

CASTLE - W/drawbridge, handmade in wood, 29" square, 12" high, great toy for Christmas. \$50. 744-5448.

CHESS SET - Imported, hand carved onyx, from Mexico, makes great gift. \$15-in Smithhaven Mall for much more. Barbara, Ext. 2902, 588-5537.

COLOR TV - 2 yrs old, 16" picture, \$200; Sony FM radio, 5 channel, preset, \$25. Barbara, Ext. 2902, 588-5537.

CORNER TABLE - Solid hardrock maple. \$25. L.E. Kukacka, 473-1157.

BOY'S BICYCLE - Rollfast "stingray" type, good cond, good beginner's bike. \$20. Ext. 2617, 751-1149 after 6.

LEATHER ICE SKATES - Size 4½, new cond, \$5; wood skis (5'3") w/cable bindings, \$2. 941-4328.

FISH TANK - 10 gal w/stand, hood, filter & gravel. \$17. Bill, Ext. 3354.

SAWZALL - Milwaukee Mod 414 heavy duty, w/ assortment of 6 new blades. \$55 or will swap. Al, Ext. 3354.

NEW ACCESS FOR UNIMAT LATHE - Milling table, live center, thread chasing attachment, indexing head, for ½ cost. Al, Ext. 3354.

FARFISA ORGAN - Walnut cabinet, dbl key board, base pedal, rhythm box, excel cond. \$450. 289-0487.

SWIVEL ROCKER - Gold vinyl, new cost \$80, will sell for \$25; chest of drawers, \$15. 286-3540.

SEARS 12" COLOR TV - Needs picture tube, otherwise OK, 4 yrs old. \$25. Tom, Ext. 3397, 475-2595.

DOLL HOUSE - All wood, handmade. \$85. 744-3744.

2 MONTH OLD DAY BED - W/wedge bolsters, matching walnut head & foot boards, also mahog dresser 51"x33"x18". Ext. 3381.

DESIGNER ORIG WEDDING GOWN & VEIL - One-of-a-kind, size 10, \$100; Spanish or Medit access, lg variety, must see. Barbara, Ext. 2902, 588-5537.

GE VACUUM CLEANER - Almost new, canister type, all attachments, \$30; Spanish access, shelves, gates, sconces, conquistador, must see. Barbara, Ext. 2902, 588-5537.

GE ELEC RANGE - Apt size, 4 burners & oven, \$50; Playboy- more than 3 yrs back issues, \$8 takes all. Barbara, Ext. 2902, 588-5537.

GROLIERS WORLDS GREAT CLASSICS - 50 matched gilt edged, custom bound vols in own bookcase. Orig \$500, now \$350 or best offer. Barbara, Ext. 2902, 588-5537.

PECAN DIN RM SET - Octogonal pedestal table w/2-24" leaves, 4 cane-back chairs; lighted china closet. \$650. Barbara, Ext. 2902, 588-5537.

WALNUT STEREO - W/built-in Garrard turntable, 2 spkrs, concealed space for AM/FM radio, cabinet like new. \$50. H. Browell, Ext. 3716/3712.

SEWING MACHINE - \$35; rotisserie, \$5. Frank, Ext. 3532.

KNITTING MACHINE - Brother 588 w/Ribber, Knit-leader, & many access. \$400. Virginia, 929-6486 after 5:30.

3 PC FRENCH PROV SECTIONAL - Gold & white, glass top round coffee table & lamp table, like new. 981-5993 after 6.

8 TRACK CARTRIDGES - Pre-recorded, lg selection. \$2 ea. Ext. 2041.

7' ARTIFICIAL CHRISTMAS TREE - All decorations, can be seen after 12/14. \$25 compl. Marie, Ext. 3148.

1 SET GAS FIREPLACE LOGS (OAK) - Perf for heat & beauty, operates from bottle gas, sacrifice. 475-6938.

MAYTAG DRYER - 1 yr old, excel cond. \$150. A. Et-kin, 732-0984.

CREATIVE PLAYTHINGS INDOOR GYM HOUSE - Excel cond. \$25. A. Etkin, 732-0984.

POINSETTIAS - 5 & 6 flowers, \$5.50; live & artificial arrangements in your containers or mine, live deliveries Dec 20, 23, 24, artificial deliveries anytime. Ext. 2381, 475-1916.

ANTIQUERADIO - \$7; old (78) phonograph records. O. Booker, Ext. 4719.

3-PC SECTIONAL - Matching chair, turquoise uphol, boomerang cocktail, side tables, lamp table fits behind sectional. \$185 takes all. 588-7989.

SKI BOOTS - 10½ to 11. \$10. Bob, Ext. 4682.

STAPLE GUN - Sears 2 power w/7 boxes staples, old but good. \$7. John, Ext. 2242.

CAN OPENER - Elec Rival, top unit removes for cleaning. \$2.50. John, Ext. 2242.

STANLEY SQUARE - 12" ruler w/square/45° & scriber. \$1.50. John, Ext. 2242.

CANDELABRA TEARDROP BULBS - 40w clear, 5 bulbs/\$1.50; 2 bike tires, size 24x1.75, will not fit Schwinn bikes, 2/\$1.50; grinding wheel, new 6"x1"x¾", \$1.50. John, Ext. 2242.

AXE - Long handled, head is cracked from hammering, as is \$1.50. John, Ext. 2242.

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

SALE/RENT - Yaphank, 3 bedrm ranch, low taxes, near Lab & Country Club, attached garage. 924-3369.

For Rent

ROCKY POINT - 1 bedrm house, lg liv rm & others, 3 yrs old near LI Sound, see to appreciate, couple preferred, no pets, avail 1/5. 744-9724.

BROOKHAVEN - Cottage in country setting, compl furn, washer/dryer, 2 bedrms, lg liv rm, 6 mos Jan-June. \$200/mo. R. Ince, 286-0682.

TRAVEL TRAILER OWNERS - Vermont vacation sea-son spot, avail util on 10 acres, 10 min to Okemo Mt & 7 other ski areas. 473-8186.

VERMONT VACATION - 3 bedrm mobile home w/ fireplace, 10 acres, 10 min to Okemo Mt, close to 7 other major ski areas. 473-8186.

MIDDLE ISLAND - 3 bedrm ranch, fireplace, lg fam rm, fin bsmt, ½ cre. \$400/mo plus util. 924-6972.

Wanted

CLARINET - Woodwell, 286-0798.

STD OFFICE TYPEWRITER - Fairly good cond if not new, for 14 yr old son for Christmas. 732-8969.

FILE CABINET - Std 2 drawer office, used. Ext. 4506.

COUCH - Sm or med fold out hide-a-bed type couch. Rowley, 286-0975.

STEREO - FM radio, turntable, no tape, must be in good cond. 744-3995 after 5.

BOWLER - For Ladies League, Tues nights, Pt Jeff. Ext. 3605.

DRILL PRESS - Home craftsman size. J. Washburne, Ext. 2113.

HAPPY CHRISTMAS HOME - For exceptionally hand-some young gray male tiger cat, housebroken. 286-2272.

GYM MATS - For St John School. Ext. 2311.

PORTABLE TYPEWRITER - W/case, in good cond, for college student, 589-1145 after 5.

SUBSTITUTE BOWLER - Women's Pink League. Bored Tues nite at 6:00? Bowl with the #1 gregarious team, lots of fun for lots of laughs. J. Weber, Ext. 2003.

HAIR DRYER - TV; cassette tape recorder or radio recorder; household goods. Ext. 3232.

FOOD, CLOTHING, BEDDING, ETC. - For 6 very poor children, girls 3 & 5, boys 6 thru 13. Contact H. Henck, Ext. 2957.

CAMERA - 35mm in good cond. Ext. 3765, 744-5079.

DESK - For a child's rm. Ext. 3765, 744-5079.

AM RADIO - Solid state; heating pad. Osgood, Ext. 3978, 286-2561.

MUSICAL INSTRUMENTS FOR CHILDREN - Bongos, recorder, tambourine. Osgood, Ext. 3978, 286-2561.

CHILDREN'S GAMES - Battleship, Spirograph, Etch-a-Sketch, Erector. Osgood, Ext. 3978, 286-2561.

WOOD BLOCKS FOR YOUNG BOY - Ice skates, sizes 2 & 3. Ken, Ext. 2495.

SOUP LABELS - St John's School needs 8000 Camp-bell soup labels to get gym mats. Sent to F. Chandler, Bldg T-89. Ext. 2311.

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

- The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
- All items for sale or rent must be the advertiser's property.
- Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
- Firearms offered for sale or trade may not be brought on site.

- Ads not carried because of space restrictions will be held for publication in the next issue.
- Ads are run only once and must be resubmitted if they are to be repeated.
- Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

- For Sale: Auto & Auto Supplies
 For Sale: Boats & Marine Supplies
 For Sale: Miscellaneous

- Wanted
 Carpools
 Lost & Found
 Services

Check the heading applying to your ad.
 Print or type your ad in 20 words or less.

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 111, 40 Brookhaven Avenue.

(Name & Phone No. To Call)

Employee's Signature..... Life No..... Ext.....
 Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue (Ext. 2345).