BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

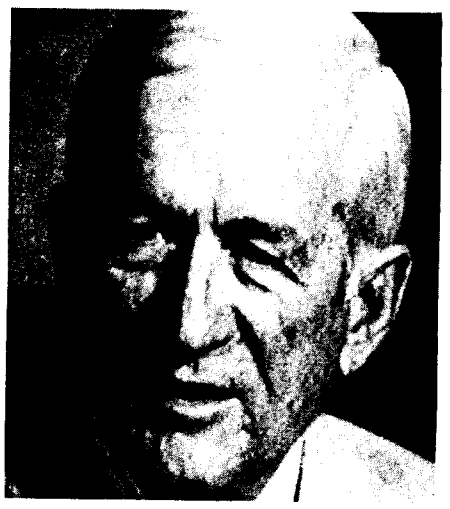
# BNL Lecture: The Early Years

Twenty-one years ago, on March 30, 1966, Physicist Norman Ramsey gave a Brookhaven Lecture on the "Early History of Associated Universities and Brookhaven National Laboratory." The 55th talk in the series was a colorful eyewitness account of BNL and AUI's first days.

Anyone who would enjoy another chance to hear Ramsey's recollections should plan to attend the 236th Brookhaven Lecture next Wednesday, September 16, at 4:30 p.m., in Berkner Hall. The talk, which initiates the 1987-88 lecture series, is the first of four Brookhaven Lectures planned this fall to commemorate the Laboratory's 40th anniversary year.

Now of Harvard University, Norman Ramsey was not only involved in BNL and AUI's early history, but also in their prehistory. As he recounted in 1966, "Insofar as I know, the idea that grew into [AUI and BNL] arose in discussions between [I.I.] Rabi and myself at Columbia University during the period from October to December of 1945." The discussions, he recalled, centered on the fact that, while physicists at Columbia had made great contributions to the war effort, they had "little scientific benefit in return," such as a nearby nuclear science laboratory at which to do research. So Rabi and Ramsey's talks focused on "how we could best make a nuclear reactor available to Columbia."

It soon became obvious that a reactor would be beyond the means of any single institution and that many groups might be interested in sponsoring the establishment of such a laboratory. With a meeting of 21 major Northeastern research institutions on



Norman Ramsey

January 16, 1946, the first formal steps toward AUI and BNL were taken.

Ramsey took minutes at that first meeting, and, at the March 23, 1946, meeting that formed the Initiatory University Group (IUG), AUI's predecessor, Ramsey was elected secretary. He later became Chairman of IUG's Sub-Committee on Site.

In his talk, Ramsey will explain how IUG evolved into AUI, and how the AUI trustees came to select the BNL site and name it Brookhaven National Laboratory (see BNL's Fabulous Forty this week). He will describe those first days when BNL opened and began the business of building the first of the "big machines."

Having studied in both the U.S. and England, Norman Ramsey received a Ph.D. from Columbia University in 1940 and a D.Sc. from Cambridge University in 1964. He has also received honorary degrees from Harvard University, Case Western Reserve University, Middlebury College, Oxford University and Rockefeller University.

Ramsey was an Associate Professor at Columbia from 1942 to 1947, though he was associated with both the MIT Radiation Laboratory and Los Alamos Scientific Laboratory during World War II.

From 1946-47, Ramsey was the first Chairman of BNL's Physics Department. Also in 1947, he began his long association with Harvard University and became the Higgins Professor of Physics in 1966. Though the distance between Upton and Cambridge necessitated that he relinquish the chairmanship, Ramsey spent several summers doing research at BNL, the last in 1967. He also served as an AUI Trustee, from 1951 to 1954.

From 1958-59, Ramsey served as

(Continued on page 3)

## To All Employees:

Today concludes BNL's three-day anniversary celebration, marking 40 years of significant achievements in many fields of science. As one facet of the celebration, a special anniversary edition of the Brookhaven Highlights — *The First Forty Years* — is now being distributed to all employees.

I think you will enjoy reading this book. If you have been at the Laboratory for some time, it will bring back memories of years past and the accomplishments that have made Brookhaven an outstanding scientific research institution. Or if you have just recently come to BNL, you will gain a better understanding of the Lab's proud history and of how you can contribute to similar achievements over the next 40 years . . . and beyond.

Nicholas P. Samios

**Nicholas P. Samios**
**Director**

# David Thouless to Lecture as Fourth Haworth Scientist

David Thouless, University of Washington Professor of Physics, is scheduled to arrive at the Physics Department on Monday, September 14, to begin two weeks as the Lab's fourth Leland J. Haworth Distinguished Scientist.

In the field of condensed matter physics, Thouless has contributed to the understanding of phase transitions in two dimensions, such as what occurs when a liquid becomes a superfluid. His insights, with a fellow researcher, into particular types of phase transitions have been recognized as the Kosterlitz-Thouless transition.

Thouless will mention his work in this area during a lecture of Lab-wide interest, "Physics in One and Two Dimensions," which will be held Thursday, September 17, at 3:30 p.m., at Berkner Hall. A reception will follow at 5:00 p.m.

Much of his other work involves the nature of materials whose internal make-up is disordered, such as spin glasses, which will be the subject of Thouless's Physics Colloquium "Spin Glass: Theory and Its Possible Applications." It will be presented Tuesday, September 15, at 3:30 p.m. in the Large Seminar Room, Physics, Bldg. 510. A 3:00 p.m. tea will precede the talk.

Spin glasses are disordered systems in which the magnetic moments of atoms are jumbled, as are the positions of atoms in common glass.

The magnetic moments of atoms that constitute spin glass point in many directions, a condition not commonly found in nature. Because it can model disordered systems, spin glass has been compared to neural networks in the brain and early prebiotic evolution.

Other areas in condensed matter physics that Thouless has researched include superconductivity, the movement of electrons in disordered systems and the Quantum Hall effect.

Thouless has been recognized throughout his career, which has spanned nuclear physics to condensed matter physics, by several awards. They include: the Maxwell prize of the Institute of Physics in 1973, the Fritz London Memorial Award in 1984, and an appointment as a Fellow of the Royal Society in 1979.

The Haworth Distinguished Scientist appointments were established by Associated Universities, Inc., in 1983, to honor the late Laboratory Director Leland J. Haworth, who headed the Lab from 1948 to 1961 and died in 1979. Scientists having international reputations in fields related to Lab programs spend from one to three weeks a year, for three consecutive years, in residence at BNL, holding discussions with the scientific staff and presenting lectures.

—Ric Lewit

**Ground Breaking: AGS Accumulator-Booster Noon Today**

# Cutting BNL's Electric Bill: AGS Shoulders the Load

Sometime in June of 1986, BNL's big machines were up and running and eating. During that one month, the Lab site and its power hungry machines consumed about 24,000 megawatt-hours of electrical energy, at a cost of one and a half million dollars.

From September to June of this fiscal year, the Demand Coordination Committee, by juggling the power demands of the Laboratory, saved the same amount of money on BNL's electric bill, savings that have been passed on to the departments.

"In the past, everybody would just turn everything on and run it, without looking at the electric bill," said Mark Culp, Plant Engineering representative to the Committee. "Now, we recognize that if we can lower our peak usage, we can save tremendous amounts of money in our electric costs."

Cutting peak demand, or smoothing out BNL's electricity demand so that it no longer rises and falls, hour to hour, day to day, is the task of the Demand Coordination Committee, chaired by Alfred Mahlmann, Manager of the Plant Engineering Division.

In addition to Culp, four representatives of BNL's largest power-consuming departments and divisions staff the committee: Joseph Glenn, Alternating Gradient Synchrotron (AGS); Albert Queirolo, High Flux Beam Reactor (HFBR); Norman Fewell, National Synchrotron Light Source (NSLS); and Robert Gibbs, Compressor Group, Accelerator Development Department.

The Committee develops a schedule of electrical demand that will yield the lowest possible bill that conforms to the utilities' rate structure and does not cut back on experimentation.

(Continued on page 2)

Mort Rosen

**Joseph Glenn (left) and Mark Culp (right) examining a display of BNL's minute-byminute power consumption. The monitor is installed in Plant Engeneering's Energy Monitoring Station. Next year, Culp plans to wire 200 electric meters into the system.**

## Electric Bill (Cont'd)

In a given month, if BNL uses less than 26.91 megawatts (MW) of electric power, then all of that electricity is supplied by the New York Power Authority (NYPA), at a total cost of five cents per kilowatt-hour (kWh). When BNL uses more than than 26.91 MW, the excess electricity is supplied by the Long Island Lighting Company (LILCO), at more than eight cents a kWh.

If the billing structure were that simple, then cutting the electric bill would be as simple as cutting electricity usage, and the Demand Coordination Committee might be called the Conservation Committee. Unfortunately, the bill structure is not that simple.

Once the 26.91 MW line is crossed, the energy that BNL pays for at the end of the month is in the same ratio of NYPA power to LILCO power at peak demand. Glenn, Chief of Operations at the AGS, explained, "Hypothetically, if we take 54 MW for a half an hour during a month, then we have to buy half our energy from LILCO and half from NYPA for the whole month, even if we draw below 26.91 MW at all other times."

When the Laboratory stays below 26.91 MW, there is no problem, but when the AGS runs, it alone can draw more than 25 MW, doubling the amount of electricity used on site. Because the limit is exceeded, the Committee schedules demand by the big users, so that expensive electricity is used efficiently. Efficiency requires that there be no wide swings, up or down, in BNL's power demand.

The Demand Coordination Committee studied the problem by measuring the amount of power entering BNL and by asking Committee members where their departments could cut back when electrical demand rises. They recognized that cutting power consumption by the AGS was the most expedient way to regulate total power consumption at BNL.

Although shedding electrical load at the AGS regulates demand, Committee members would like to see more energy management throughout the Lab: Many small contributions can total to a large savings.

"We understand we are the biggest user, and, if we exceed the preset level, it can get very expensive, very quickly," said Peter Ingrassia, a shift engineer at the AGS. A single AGS experiment can draw as much as 3 MW, so shutting off that experiment as power demand rises around BNL is a quick way to regulate overall consumption.

Inside the AGS control room a computer monitor displays, minute by minute, BNL's total energy demand. As employees arrive for work and switch on machines, power consumption rises about 2 MW each morning. When electrical consumption starts to rise, Ingrassia and the control room staff call experimenters and ask them to shut down for the work day; often two experiments must be cut each morning.

Sometime around 5 o'clock, as power demand falls to its nighttime levels, the experiments are restarted. "The idea is to schedule experiments when everyone else has gone home," said Glenn.

When they are forced to shut down for the day, experimenters can use the time to tune and modify their instruments. Thus, when power is restored, they can get right to work, and the cutback can be made with little loss of experimentation time.

If researchers must stop their experiments for any other reasons, they are also encouraged to shut off magnets and other big electrical consumers.

When the program was instituted two years ago, experimenters did not like it, "The group's career is riding on that experiment and, understandably, they take a parochial view of what is important," said Glenn. Eventually, groups embraced the plan, and money saved by the AGS, as much as $100,000 per month, is used for increased running time, which experimenters always want.

Sometimes the power cuts cannot be planned, so operators must shed load quickly. One method is to shut off the motor generator set, which functions as a regulator between the power grid and AGS magnets, saving about 6 MW. However, everything stops, and the operators have to answer the phone calls asking: 'Where did the beam go?' We try to warn all the users ahead of time, but they still tear their hair out," said Igrassia.

To better understand who is using electricity, so that the electric bill and any potential power reductions (and hair tearing) can be equitably distributed, Culp is installing 200 new electric meters around the Laboratory. The meters, 50 of which are already installed, report via modems to a central computer in Plant Engineering. The system, which should be fully operational in 1988, will give the Demand Coordination Committee detailed demand information, but until then, and probably afterwards, the AGS will still have to shoulder electrical load management. — Ric Lewit

## Stop Smoking Via Hypnosis

Hypnosis is one of the methods by which people succeed in stopping smoking. If you have never tried before or have tried everything else but, you have an opportunity to attend a stop-smoking hypnosis workshop on site.

Offered as a Health Promotion activity of the Occupational Medicine Clinic, two separate, 2½-hour hypnosis sessions will be offered to employees and their dependents covered under any of the medical plans provided by BNL. A clinical psychologist from the American Lung Association will conduct the group workshops, and he will coach participants through progressive relaxation exercises, which are designed to help them to stop smoking.

The workshops will take place on Tuesday, September 22, and Tuesday, September 29, from 5:30-8 p.m. in the North Room, Brookhaven Center. Each session is limited to 30 people. The cost is $50 per person, but each participant will be required to pay only $30, as the Laboratory will pay the remaining $20.

To sign up, mail your check and your name, Lab address and extension to Health Promotion Specialist Elaine Friedman, Bldg. 490. For more information, you may call Friedman on Ext. 2699, Tuesdays and Thursdays.

Mort Rosen

## BNL's First Smoke-Free Building

"No one smokes in this building," the sign proudly proclaims, and this building is Bldg. 51, home of the Atmospheric Sciences Division (ASD) of the Department of Applied Science — the first smoke-free building on site.

Some of the ASD staff who appreciate the sign and the smoke-free atmosphere are: (from left) Carmen Benkovitz, Joyce Tichler, Paul Michael, Lola Kopp, Robert Brown, Joan Congemi, John McNeil, Larry Klineman and Marty Leach.

Seven of the 12 staffers in the building used to smoke, and one occasionally smokes cigars, but not in the building. However, smoking by visitors to Bldg. 51 irritated the senses and sensibilities of several, especially Robert Brown. As ASD Head Paul Michael and the rest agreed to it, the sign was posted four months ago.

"It is a statement of fact: People in this building don't smoke, so we want to let visitors know that smoking is not appreciated," explains Brown.

According to the Laboratory policy on smoking, employees working in private offices may designate their work space as a no-smoking area, and visitors to these offices are obliged to honor this designation. Employees sharing work space in which smoking is a problem should resolve it among themselves and, if necessary, with their supervisor.

## *BNL's Fabulous Forty*

What's in a name? Inside the name Brookhaven National Laboratory is 40 years of scientific accomplishment, which was preceded by a year of hard, preparatory work that resulted in the founding of BNL. This initial work was done by the group that evolved into Associated Universities, Inc., which held its first Executive Committee meeting almost exactly 41 years ago today, on September 9, 1946.

**The first logo to bear the names of Brookhaven National Laboratory and Associated Universities, Inc. appeared in 1947.**

One of the key pieces of business at the September 9 meeting was the adoption, by a unanimous vote, of the name Brookhaven National Laboratory for the corporation's research laboratory to be located on site of the former Army training camp, Camp Upton.

This, of course, leads to the question: Since Upton was already the site's name, why isn't it known today as Upton National Laboratory?

The explanation can be found in the following excerpt from Norman Ramsey's Brookhaven Lecture No. 55 on the "Early History of Associated Universities and Brookhaven National Laboratory," March 30, 1966:

> During the summer of 1946 as secretary of the organization I had frequent occasions to write documents referring to the new laboratory. I found that my writing became somewhat cumbersome because of the lack of a suitable name, other than the "new laboratory to be built on the site of Camp Upton."
>
> Therefore, I decided I should select a name for the laboratory and wrote down a long list of possible names. In selecting these names I was influenced by our desire to improve relations with our neighbors at the site and I consequently hoped it would help if we adopted some local names.
>
> The names I considered, therefore, included Upton Laboratory, Yaphank Laboratory, Long Island Laboratory, Middle Island Laboratory, Atlantic Laboratory, Northeast Laboratory, Suffolk Laboratory, and Brookhaven Laboratory.
>
> I then presented the list to my wife and asked her to select the name that she thought would be most attractive when we recruited new staff for the laboratory. She pointed out that Yaphank Laboratory would exclude all veterans of World War I who had been inducted at Yaphank, and Upton Laboratory would do likewise for World War II veterans.
>
> She finally chose Brookhaven Laboratory because it was literally correct yet delightfully misleading. The site was in the Town of Brookhaven, but the name had a misleading association with quiet, shady streams which might make the laboratory site sound more attractive to potential new recruits than it actually was.
>
> Since we still had problems in our relations with the Federal Government it occurred to me as an afterthought to increase the sense of Federal participation by including the word "National" in the laboratory name, even though this was not the previous Manhattan District custom. Therefore, I began using the phrase Brookhaven National Laboratory in my reports.

The name Brookhaven National Laboratory was formally announced through a press release on September 28, 1946.

## Correction

The second International Symposium on X-Ray Microscopy, held at BNL the week of August 31, was organized by Malcolm Howells, Lawrence Berkeley Laboratory; Janos Kirz, State University of New York at Stony Brook and a user of BNL's National Synchrotron Light Source (NSLS); Harvey Rarback, NSLS; and David Sayre, IBM.

# BERA Concert Series Begins With Pianist Roger Press

BERA's annual Concert Series gets under way on Thursday, September 17, with a special preview concert by young American pianist Roger Press. In addition, the regular series will include five concerts, two of which will feature all-Beethoven programs. All performances will begin at 8:30 p.m. in Berkner Hall.

Next Thursday's special concert will be a preview of Roger Press's upcoming New York City debut recital, in which he will perform works by Rachmaninoff, Chopin, Prokofiev and Franck.

Press, an American citizen of Lithuanian descent, spent his formative years in England, where he began his musical career. Several years of performance and study in the United States followed, then a return to England, where he made his highly acclaimed London debut in 1984.

The other concerts in the 1987-88 BERA series will be:

- The Composers String Quartet, playing all-Beethoven concerts
  Wednesday, October 7, 1987
  Wednesday, April 6, 1988
- The Cremona Arts Trio
  Thursday, November 5, 1987
- The Amsterdam Loeki Stardust Quartet
  Tuesday, January 26, 1988
- The New Zurich String Quartet
  Wednesday, February 24, 1988

Tickets for any concert can be purchased at the door the night of the performance. For each of the five concerts in the regular Concert Series, prices are $9 for general admission, $6 for students and those over age 65, and $5 for those under 18. Block tickets, good at any concert, can also be purchased the night of the first concert of the series. They are priced at $6 each, for a minimum purchase of five tickets.

Admission for the Roger Press preview concert is $5. Concert Series block ticket purchasers will get a special price of $3 a ticket. Block tickets will be on sale the night of the preview concert.

Tickets can also be purchased from the following:

| | Bldg. | Ext. |
|---|---|---|
| Arnold Aronson | 475B | 2606 |
| Clemens Auerbach | 197D | 2914 |
| Howard Gordon | 510A | 3740 |
| Geoffrey Hind | 463 | 3400 |
| Richard Holroyd | 555A | 4329 |
| Blanche Laskee | 185 | 2873 |
| Donald Lazarus | 911B | 4643 |
| Myron Ledbetter | 463 | 3418 |
| Benjamin Magurno | 197D | 5207 |
| Edwin Popenoe | 490 | 3622 |
| Stephen Schwartz | 426 | 3100 |
| T. Laurence Trueman | 510A | 3767 |

Roger Press

## BNL Lecture (Cont'd)

the first science advisor to the Secretary General of NATO. Further, Ramsey was a founding Trustee of Universities Research Association, which oversees Fermilab, and served as its President from 1966-80.

Ramsey's diverse research interests have included nuclear moments, molecular beams, high energy particles, nuclear interactions in molecules, deuteron quadrupole moment, molecular structure, diamagnetism and thermodynamics.

One product of Ramsey's research was the invention of the method of using separated oscillatory fields for exciting resonances. This method provides extremely high resolution in atomic and molecular spectroscopy and forms the practical basis for the most precise atomic clocks.

Even greater spectroscopic resolution is found in a second invention in which he participated, the atomic-hydrogen maser, which serves as the basis for atomic clocks having the highest levels of stability for periods extending to several hours.

For this work, the Institute of Electrical and Electronics Engineers presented Ramsey with its highest award, the Medal of Honor, in 1984. He received the E.O. Lawrence Award from the Department of Energy in 1960 and the Davisson-Germer Prize of the American Physical Society (APS) in 1974.

Ramsey is a Fellow of APS and a member of the National Academy of Sciences, the American Association for the Advancement of Science and the American Philosophical Society.

All those interested in getting together after the lecture are invited to go with the lecturer to a restaurant off-site. To be part of this group, call Les Fishbone, Ext. 5180.

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## Equipment Demo

A mobile exhibit featuring Anderson-Greenwood safety relief valves will be located in the Berkner Hall parking lot on Monday, September 14, from 9 a.m. to noon. Products displayed in the van, which is run by the Valquip Corporation, will include pilot and spring-operated safety relief valves, safety selector valves, tank vents and blanketing regulators, and instrument valves, manifolds and enclosures.

## Equipment Seminar

David Nelson, a co-founder of Apollo Computer Inc., will make a presentation on Apollo's Network Computing System™ (NCS), on Tuesday, September 15, at 1:30 p.m., in the Snyder Seminar Room, Bldg. 911.

As the company's vice president of advanced technology and chief technical officer, Nelson will explain that NCS, which was introduced by Apollo in February, is a set of advanced distributed computing products, which distributes modules of an application to the most appropriate computer resources on a network, from workstations to supercomputers. NSC can also automatically make productive use of idle computing resources on the network and distribute program modules concurrently, for higher levels of computer interactivity.

## Women & AIDS

"Women and AIDS" will be the topic of a talk to be given by Patricia Thomas, Boston Correspondent for Medical World News, on Wednesday, September 16, at 12:30 p.m. in Room B, Berkner Hall.

Thomas will discuss women's risks of getting the deadly Acquired Immune Deficiency Syndrome (AIDS) and the lack of research on AIDS in women. She will be at BNL for the Department of Energy's Biotechnology and the Human Genome workshop for science writers, running from Monday, September 14 through Wednesday, September 16.

The talk is sponsored by the Health Promotion Program of the Occupational Medicine Clinic, Women's Programs and Brookhaven Women in Science. All are welcome.

## Aerobic Dance

As autumn leaves begin to fall, it's time to fall in line with the Aerobic Dance Club (ADC). Instructor Pat Campbell will lead the classes on the ADC's fall program:

- Stretch — Classes involve a choreographed program of exercises that concentrate on stretching and strengthening various muscle groups.
- Aerobic Dance — Classes emphasize cardiovascular improvement through vigorous, choreographed exercise.

Classes in aerobic dance will be held on Tuesdays and Thursdays, while stretch classes will be held on Mondays. All classes run from 5:15 to 6:15 p.m. Participants may take any or all of these classes. Those signing up for aerobic dance are encouraged to take it both afternoons, or one class of aerobics and one of stretch.

## WIS Meeting

The next meeting of Brookhaven Women In Science (WIS) will be held on Thursday, September 17, at noon, in Room A, Berkner Hall. Corinne Coughanowr will speak on the "Thermochemistry of Compound Semiconductors."

Coughanowr is a chemical engineering graduate student from the University of Florida, who is working with James Egan, Chemical Sciences Division, Department of Applied Sciences. Her project involves the electrochemistry and thermodynamics of solid alloys at high temperatures.

Elections for next year's WIS officers will precede Coughanowr's talk. All are invited; bring your lunch.

## Weight Watchers

New and continuing members may sign up for another on-site Weight Watcher (WW) session on Wednesday, September 30, not on September 23 as announced in the WW flyer circulating on site. Registration and the first of eight weekly sessions will be held from 5:15 to 6:15 p.m. in the S&EP conference room, Bldg. 535. The fee is $50; new members only pay half, as the Lab will split the cost with them. For more information, contact Health Promotion Specialist Elaine Friedman, Ext. 2699, Tuesdays and Thursdays.

The fee for each ten-week session (M, T or Th) is $30, payable at registration, which will precede the first classes and be held on the third floor of the Collider Center, Bldg. 1005S, as follows:

- Stretch — Monday, September 14.
- Aerobic Dance — Tuesday, September 15, and Thursday, September 17.

For more information, call Bill Leonhardt, Ext. 2378; Elinor Norton, Ext. 3455; or Janet Sillas, Ext. 2345.

## Volleyball

The first Volleyball League captains' meeting will be held on Wednesday, September 16, at noon, in the Hamilton Seminar Room of Bldg. 555, Chemistry. Election of officers will take place at that time. If you plan to enter a team, a representative must attend the meeting and submit a preliminary roster. Roster sheets will be sent to last year's captains. To form new teams, contact Jean Ramirez, Ext. 2119.

## Dedication: NSLS Phase II

All are invited to the dedication of the Phase II construction project at the National Synchrotron Light Source (NSLS), to be held on Monday, September 21, at 3:30 p.m., on the expermental x-ray floor of Bldg. 725. Phase II has added 57,600 square feet of experimental, support and office space to the existing building.

Following the dedication, posters displaying the work done by NSLS participating research teams, insertion device teams and general users can be viewed on the experimental floors of the NSLS x-ray and vacuum ultraviolet rings.

The ceremony and poster session are being held in conjunction with the 1987 Annual NSLS Users Meeting, which runs from Sunday, September 20 through Tuesday, September 22. For more information about the Users Meeting, call Eileen Pinkston, Ext. 4194.

# Arrivals & Departures

### Arrivals

**Robert E. Raulli** ..... Chemistry
**Karen M. Savino** ..... DNE
**Katherine J. Vivirito** ..... Tech. Info.
**David A. Weber** ..... Medical

### Departures

This list includes all employees who have terminated from the Laboratory, including retirees:

**Margaret M. Halpin** ..... Fiscal
**Maureen T. Welte** ..... Fiscal

# Cafeteria Menu

## Week of September 14

**Monday, September 14**

| | | |
|---|---|---|
| Chicken noodle soup | (cup) | .75 |
| | (bowl) | .95 |
| Spaghetti w/meat sauce & garlic bread | | 2.85 |
| Broccoli cheddar quiche | | 2.85 |
| Fruit & cottage cheese plate (lite-weight) | | 1.95 |
| Hot deli: Baked ham | (bread) | 2.55 |
| | (roll) | 2.65 |
| | (hero) | 2.75 |

**Tuesday, September 15**

| | | |
|---|---|---|
| Garden vegetable soup | (cup) | .75 |
| | (bowl) | .95 |
| Baked savory chicken w/1 veg. | | 2.85 |
| Beef stew w/biscuit | | 2.85 |
| Skinless herbed chicken (lite-weight) | | 2.75 |
| Hot deli: Corned beef | (rye) | 2.55 |
| | (roll) | 2.65 |
| | (hero) | 2.75 |

**Wednesday, September 16**

| | | |
|---|---|---|
| French onion soup | (cup) | .75 |
| | (bowl) | .95 |
| Pork chop Virginia w/1 veg. | | 2.95 |
| Beef burgundy over noodles | | 2.85 |
| Sliced cold turkey plate (lite-weight) | | 2.25 |
| Hot deli: Turkey | (bread) | 2.55 |
| | (roll) | 2.65 |
| | (hero) | 2.75 |

**Thursday, September 17**

| | | |
|---|---|---|
| Minestrone soup | (cup) | .75 |
| | (bowl) | .95 |
| Meatloaf w/Spanish gravy & 1 veg. | | 2.85 |
| Fettuccine carbonara | | 2.75 |
| Stuffed tomato cold plate (lite-weight) | | 2.25 |
| Hot deli: Chicken fillet on roll | | 2.75 |

**Friday, September 18**

| | | |
|---|---|---|
| New England clam chowder | (cup) | .75 |
| | (bowl) | .95 |
| Veal steak parmigiana w/1 veg. | | 2.85 |
| Pasta primavera | | 2.75 |
| Baked fresh fish fillet (lite-weight) | | 2.75 |
| Hot deli: Pastrami | (rye) | 2.55 |
| | (roll) | 2.65 |
| | (hero) | 2.75 |

# 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 and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

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

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 Employment Manager, Ext. 2882.

**LABORATORY RECRUITMENT** - Opportunities for Laboratory employees only.

2672. SECRETARIAL POSITION - Requires excellent secretarial and communication skills and Micom word processing experience. Will perform diverse secretarial duties for Nuclear Waste Research Group, including extensive technical typing, travel arrangements and maintenance of files. Department of Nuclear Energy.

2673. SECRETARIAL POSITION - Requires excellent secretarial and communication skills as well as a broad-based knowledge of Laboratory policies and procedures. Micom word processing and shorthand required. Under minimum supervision, will perform diverse administrative secretarial duties for Laboratory Counsel and assist in operation of AUI Corporate Office. Previous legal experience helpful. Director's Office.

2674. REGISTERED NURSE (part-time, 50%) - Requires valid RN certification. Occupational Medicine Clinic.

2675. LAMP CLEANER - Plant Engineering Division.

**OPEN RECRUITMENT** - Opportunities for Laboratory employees and outside applicants.

2676. INFORMATION SECURITY POSITION - Requires AAS or equivalent work experience and 2-3 years of information security background in the application of government security regulations and the protection of classified material. Will maintain the Classified Document Accountability and Control System and provide technical assistance in program security projects. Will report to the head of the Personnel/Information Security section. Requires ability to obtain DOE "Q" clearance. Preference will be given to current DOE "Q" clearance holders. Safeguards and Security Division.

2677. P&GA SPECIALIST - Familiarity with scientific notation for preparation of technical documents containing mathematical equations essential. Previous experience on Texet Electronic Publishing System desired. Knowledge of typesetting and good English skills helpful. Must be willing to work nights. Photography and Graphic Arts Division.

## Autos & Auto Supplies

72 FORD LTD - Ext. 3867.

84 FORD CUSTOM VAN - a/t w/overdrive, p/s, p/b, dual heating, a/c, captain's chairs, TV. 475-8640.

80 MONZA - new battery, brakes & tires, good cond., $850. 732-6647.

80 CAMARO - T-top, a/c, p/s, p/b, 3 spd., V6, am/fm, $2,800. Ext. 2621 or 281-0360 after 6 p.m.

FLAT BED - 8', 6½ wide, steel frame & sides, CCA wood deck, $150; 76 Volare station wagon, slant 6, a/t, p/s, p/b, best reasonable offer. 289-8212.

74 LINCOLN CONTINENTAL - white, 47k mi., excel. cond., orig. owner, loaded, $2,500. 598-1891.

77 PLYMOUTH FURY - station wagon, new tires, runs well, $150. 751-2117.

DISTRIBUTOR CAP - Honda, new, $2. Ext. 4095.

76 JEEP CJ7 RENEGADE - a/t, V8, p/s, new: shocks, steering stabilizer, brakes, water pump, soft top, 2 tires, voltage reg., $3,500. Ext. 4142.

81 FORD VAN - 15 passenger, 90k mi., $3,900. neg.; 85 travel trailer, 25' weekender, sleeps 8, self-contained, $8,500. firm. 475-1458.

CHRYSLER LE BARON - 2 dr., a/t, gun metal leather, a/c, am/fm st., wire wheels, 42k mi., excel. cond., $6,400. 265-5218.

81 PLYMOUTH TC-3 - 2 dr., hatchback, 60k mi., a/t, $2,000. Ext. 2043, Don or 499-4855, eves.

85 FORD ESCORT - 4 dr., hatchback, a/t, p/s, am/fm/tape, 27k mi., $4,000. Ext. 4846 or 363-6940.

84 DAYTONA TURBO - black, loaded, excel. cond., $6,400. Rick, Ext. 2907.

80 DATSUN 210 - 43k mi., a/t, clean, $3,400. 475-7535 after 6 p.m..

67 CHEV STATION WAGON - rebuilt 283, a/t, p/s, full size cargo area, $200. Ext. 2246.

74 AMC HORNET - good transportation, best offer; tires (4), 195 x 75 - 15 M & S, low mileage, best offer. 331-1572.

73 DATSUN - m/t, good for parts, driveable, $50. Voytek, Ext. 2229 or 282-3220.

84 CHRYSLER LASER - black, loaded, new tires, excel. cond., $5,200. Ext. 2446 or 924-1911 eves.

86 FORD RANGER - 4wd, 4 cyl., 30k mi., immaculate cond., dark red, $6,500. 734-5835 eves.

FORD TRUCK TIRES - 10.5 LT/15, mounted on 15x7" 5 lug white sport rims. Ext. 2075 or 473-4937 after 6 p.m.

72 LINCOLN CONTINENTAL - running, $300 or best offer. Ext. 2385.

73 AMC HORNET - a/t, p/s, still runs well, $200. Bruce, Ext. 7504 (days) or Ext. 3242 (eves.).

85 CHRYSLER LE BARON GTS - 4wd, 36k mi., a/c, am/fm/cass., $8,500. Ext. 2629 or 751-7330.

78 280Z - am/fm, a/c, runs well, $2,500. 567-8645 after 5.

79 JEEP CHEROKEE - a/t, a/c, cruise, tilt, am/fm/cass., high mi., $2,900 neg. Ken, Ext. 2350 or 588-2389.

77 LTD FORD - 2 dr., a/c, a/t, stereo, $750; 75 Olds Omega, 2 dr., asking $500. Bill, Ext. 4175 or 298-4089.

78 MERCURY BOBCAT - sta. wgn., new fuel pump, water pump, recently tuned, clean, runs well, $750. Ext. 4153 or 732-5829.

80 OLDS CUTLASS - 4 dr., diesel, excel. cond., good tires, no rust, $1,750. Ext. 4004 or 286-0934.

82 HONDA URBAN EXPRESS MOPED - good cond., electric start, 3,200 mi., with helmet, $250. 878-9346.

78 OLDS DELTA 88 - diesel, good cond., best offer. 298-5515.

81 OLDS CUTLASS SUPREME - white, 2 dr., a/t, am/fm, 6 cyl. 821-0865.

77 CAMARO - a/t, black/camel int., all new parts, excel. maint.; 74 Capri, m/t, sun roof, decor group. 744-0725 eves.

78 MERCURY COUGAR - p/s, p/b, a/t, am/fm/cass., runs well. Ext. 4393 or 4563, Antoni.

78 VOLKS CAMPER DL - 286-0612.

76 JEEP CHEROKEE - 4wd, new tires, brakes, $1,000. 744-8790 after 6 p.m.

72 COUGAR - convertible, new engine, rebuilt trans., new muffler, body, needs work, $1,000. 722-3338.

78 HORIZON - excel. shape and reliable, two new tires and battery, $675. Ext. 3152 or 924-2568.

CRANE CAMSHAFT - for Ford 351C, 351M and 400 engines, new. 727-0082 after 7 p.m.

78 HONDA CIVIC - 5-spd., red, looks and runs well, good tires, high miles, $750. Ext. 3531.

80 MONZA - good cond., new tires, battery, $800. 732-6647.

82 SUZUKI GS250T MOTORCYCLE - 8 valve, 2 cyl., additional counter-balanced shaft low mi. $490. Ext. 4411 or 929-8287.

78 FORD LTD II - good body and good running cond., rear seals leak, 118k mi., asking $800. Ext. 4219.

74 OLDS - 8 cyl., a/t, a/c, p/s, p/b, hi mi., rusty, reliable, $450. Yoon, Ext. 2519 or 3175.

80 PONTIAC GRAND PRIX - a/t, p/s, p/b, stereo, must see, asking, $2,800. Ext 5241 or 286-3377.

83 HONDA PRELUDE - 5 spd., a/c, sunroof, 70k mi., excel. cond., silver. Nancy, Ext. 7996.

77 FORD MUSTANG II - s/t, very good cond., runs well, must see, $1,000. 758-5592.

79 THUNDERBIRD - black, all power, a/t, p/s, am/fm, excel, cond. Keith, 475-5591, eves.

82 CHRYSLER - convertible, 57k, blk, camel int, $6,000. Jim, Ext. 4822 or 734-7450 after 6 p.m.

73 MERCEDES BENZ - 280, 4 dr., white, dark green interior, $3,900. Ext. 4099 or 689-9214.

68 MUSTANG - 8 cyl, 289 cu. in., 2 dr. hardtop, in good shape. Ext 4932 or 928-8993

76 PONTIAC FIREBIRD - red, 350, p/s, p/b, am/fm cass., good cond., $2,300 neg. Robin 581-7733 days or 475-5591 eves.

86 SUZUKI FA50 SCOOTER - excel. cond., $300. 821-0250.

LE MANS 240S RACING MOTOR - paid $50, make reasonable offer, motor used couple times, like new. 821-2515.

24' TRAVEL TRAILER - sleeps 6, self-contained, stereo, new refrig., $3,950; 86 Chevy S10 pickup truck, s/s, 22k mi., excel. cond., $5,700. 744-5069.

## Boats & Marine Supplies

16' HOBIE CAT - and trailer, multi-color sail, extras, $2,000. Ext. 4122 or 286-0872 after 6 p.m.

84 BAYLINER CAPRI BOWRIDER - 19 ft., Volvo I/O, trailer, many extras, unused in '87, $7,000. Ext. 2981 or 473-7809 eves.

34' NAUTALINE HOUSEBOAT - 1969, excel. cond., call anytime. Charlie, 281-9138.

14' FIBERGLASS BOAT - w/trailer, 35 h.p. and 40 h.p. outboard motors, all for $450. Bill, Ext. 4175.

16' V.I.P. SEASQUIRT - w/center console, 50 h.p. Johnson & trailer, $2,500. 889-0315.

YANMAR DIESEL ENGINE - 7 h.p., good for parts. 666-9366.

CRUISER - 1972 w/cuddy cabin, 1978 Merc. 140 h.p., full canvas camper back, sleeps 4, much more, $6,800. Bob, Ext. 2309 or 473-9180.

16' BOWRIDER - rebuilt, 70 h.p., trailer, canvas, many extras, all good cond., $2,300. Dan, Ext. 2075 or 737-8124.

## Miscellaneous

TWIN BEDS - mahogany veneer, no matresses, $40. Don, Ext. 4821.

GE ELECTRIC RANGE - gold, very good cond., $75; infant/child car seat, new, $40. 473-6546.

OAK DESK - $50; floor lamp, $15; folding dining table, $40; chairs, $15. Jerry, Ext. 5506.

PIANO - upright-style Wurlitzer, blonde finish, excel. cond., $350. Eileen, 785-1799.

MOVING SALE - bdrm. furniture, Magnavox stereo, etagere with glass shelves & light, sofa & loveseat, like new. 475-6098.

DINETTE SET - table w/4 chairs, $120. 584-7206.

MODERN DINING ROOM SET - cost $4,500, sell $850; dinette set, 4 chairs, table, china closet, cost $450, sell $150. 475-4596.

DINING ROOM TABLE - dark pine, 2 exten., 4 capt. chairs w/cushions; air conditioner, window, 770 Btu, $50. 878-4335 after 6 p.m.

CHILD'S CAR SEAT - (2) Collier-Keyworth Co-Pilot 2, never used, $15 each. Mark, Ext. 5350 or 369-0793.

SNOW PLOW - 6 ft. w/cable, rebuilt pump, man. angle, $375 neg. Ken. Ext. 2350 or 588-2389.

LEAVING FOR EUROPE - whole apt. contents for sale, call for appointment. Chris 732-5047.

SOFA BED - Nelson queen 80", light blue floral, excel., $100. Ext. 5329 or 363-2796.

STATIONARY EXERCISE BIKE - $20. 281-7844, eves.

FOLDING CHAIR/BED - $10; 9 x 12 ft. blue/green rug, $40. Call Wajid, Ext. 3405.

ELECTRIC ORGAN - Allen Crystal Carousel, rhythm, sound effects, etc. Viola, Ext. 5169.

WALNUT DINING ROOM SET - 66" table, six chairs, china closet, excel. cond., $275. 821-1468 after 3 p.m.

AIR CONDITIONER - window 770 BTU, good, $50. 325-0447 after 5 p.m.

HI-RISER - good cond., clean, $50. 286-3906 after 7 p.m.

CRAFTSMAN RIDING LAWN MOWER - 5 h.p., runs, needs work, $75. 588-6417.

SURDIAK COAL STOVE - top of line, w/ coal, $300. 598-1891.

RIDING MOWER - Mustang 25" w/new 5 h.p. motor, very good cond., $185. Tom, Ext. 4089 or 878-1060.

LARGE COUCH - 2 chairs, ottoman, 2 end tables, needs slipcovers, very comfortable, $100. 878-9346.

GUSTORF CABINETS - (1) Stereo & (1) TV, cost $250 each, sell $100 each. 821-1525.

23" COLOR TV - Magnavox. Ext. 4393 or 4563, Antoni.

JC PENNY LAWN MOWER - 21" cut, 3½ h.p., very good cond., $60. Dan, Ext. 4987 or 698-7322.

PIANO - Sohmer spinet. 286-0612.

MAHOGANY DINING TABLE - Duncan Phyfe style, 42" x 64" & 3 leaves, $175; 6 identical chairs, mahogany stained, $120. 744-9726.

DINING ROOM SET - dark pine trestle table, 2 leaves, 6 chairs, hutch, buffet, very good, $400. 698-7063 after 6 p.m.

APRICA STROLLER - $45; white wicker dressing table, $28; walker, $10. 698-7063 after 6 p.m.

WALL-A-WAY RECLINER - brown corduroy, good cond., $25. Fred, 924-3565.

WASHER & DRYER - apt. size w/rack, 110V, portable washer, $450. Tom, Ext. 5350.

SOFA, CHAIR & LOVESEAT - pine trimmed, plaid, good cond., asking $300. 744-2779 after 4:30 p.m.

VIOLIN - half-size, hand-made, German, circa 1910, excel, cond., beautiful sound, $1.050. Ext 4356 or 928-3371 eves..

TICKETS - (2) Metropolitan Opera "Tosca," Sept. 25, Fri. eve., balcony, $46. Jim, Ext. 4368, 928-3371 eves..

WALL UNIT - entertainment center, walnut color, holds 19" TV & more, $25; desk, wooden, 6-drawer, $25, both good cond. 281-0360 after 6 p.m.

SIGNAL CORPS BC-348 RECEIVER - 200-500 KC, 1.5-18 mc on 5 bands, c.w. osc., B.F.O. 115V. Al, Ext. 2043.

ROYAL TYPEWRITER - deluxe office model, very good cond., $40.; car top carriers (1) 3' x 3', $10, (1) 3' x 4', $18, good cond. Ext. 2492.

WATERBED FRAME - queen size, includes heater, headboard and siderails, excel., cond. Denise, Ext. 3630.

ELECTRIC HOT WATER HEATER - 52 gal. Bradford, white, very good cond., $75. Ext. 7148 or 286-9390.

SINGER SEWING MACHINE - Model 347, $50. 473-2754.

FUR JACKET - Persian lamb w/mink collar, current style, $150; mink hat & scarf, excel. cond., $100. Ext. 2906.

FIREWOOD - seasoned, split, mixed wood, no pine, delivered locally, $110/cord. Call 924-6918, eves.

CAST IRON WOOD BURNING STOVE - free-standing w/flue pipe, wood carriers, tools, $250. 758-5592.

TOPSOIL - $15 per yd., delivered, 5 yds. min. 924-7746 or 924-9427 after 7:00 p.m.

## Free

BEAUTIFUL KITTENS - need loving home. Lois, Ext. 2959 or 751-0023.

BED FRAMES - (2) also one high rise w/head or footboard, no mattress. Jerry, Ext. 7427 or 475-5591 eves.

UPRIGHT PIANO - old, you haul. Fred, 261-5735.

WELBILT GAS STOVE - gold. Pete, Ext. 3297 or 821-9547.

OAK FIREWOOD - you cut the trees, you keep the wood. Walt, Ext. 2907 or 698-0576 after 6:30 p.m.

SECTIONAL SOFA - 2-piece, for charitable institition. Ext. 4842 or 331-2298 after 6 p.m.

## Yard Sale

RIDGE - craft supplies and ideas, Sept.13, noon-5:00 p.m., Longwood Rd. to Smith Rd., north to Strathmore condos.

## Car Pools

PATCHOGUE VAN POOL - seat open, leave name and number. Ext. 4669.

## Real Estate

*Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.*

## For Sale

EASTPORT - 1 acre w/approvals on dead end, no one in back or on left side, located off Eastport Manor Rd in the vineyards, $80,000. Ray, 884-7879.

ROCKY POINT TIDES - 9 rm, hi-ranch, in-ground pool, many extras, $156,865. Ask for Carmine Della Rocca, Ext. 3848.

SHARON SPRINGS, NY - large house in 1.3 acres, Main St., $45,000. (518) 284-2860.

FORT MEYERS, FL - approx 1/2 acre, w/access to Orange River, 5 minutes from I-75 and 20 minutes from SW Fla. regional airport, convenient, $18,500. Ext. 4482.

## For Rent

HAMPTON BAYS - winter rental, Oct. '87 - May 15, '88, 2 bdrm. house, furnished, $440/mo. plus util. 728-2104, eves.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, beach, pool, golf, tennis, some Oct. & Nov. openings, $300/wk. 585-9149.

CATSKILLS - 3 bdrm chalet with sleeping loft, fully furnished, excel. for fall foliage, deer hunting & skiing. Judy or Kay, Ext. 3595 or Bea, Ext. 3642.

MIDDLE ISLAND - Artist Lake condo, 1 bdrm., l/r, kit., full bath, a/c, new w/w, dishwasher, re-decorated, pool, heat incl., 5 min. to Lab., avail, immed., $650. Ext. 3144 or 698-5046 eves.

STONY BROOK - 1 bdrm, bath, eik, l/r, w/w, furnished, 2nd floor private home, no pets or children, non-smokers, prof. working couple., $600 mo. incl. util. & cable. 751-2149 after 6 p.m.

PORT JEFFERSON - 24 Jamaica Ave., 3 bdrm, fireplace, basement, fenced back yard, greenhouse, $950/mo. plus utilities, available Nov. 1. Ext. 4932 or 928-8993.

CATSKILLS - 2 bdrm chalet, on top of mountain, near Windam, Hunter, Deer Run, Minekill State Park and reservoir, rent weekend, week or month. Ted, 928-1445 after 6 p.m.

EAST PATCHOGUE - one bedroom apt., private entrance, patio w/grill, cable, all new, immediate availability, $550 incl. all, single person. 654-0019.

## Wanted

LAWNMOWER - no frills, but working and cheap. Ext. 2346 or 286-8563.

CHILD CARE - for infant, on site, 8:30-5, non-smoker. Mona, Ext. 5056.

FISH TANKS - any size, quantity. Mike, 281-5988.

TRUMPET - good cond., reasonable. Dave, 2694, or 941-9022.

DEHUMIDIFIER - Art, 289-2866 after 6 p.m.

LAND - acres in NYS, under $10,000. 289-2866 after 6 p.m.

OIL BURNER SERVICE - need reasonable contract for several units in Hampton Bays. 728-2109, eves.

OAK HEADBOARD - for full size bed. Ext. 5221.

SOMEONE TO ROTOTILL - established front lawn approx. 50' x 100'. 744-3736.

**Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.**