

## Brookhaven Garner Two I-R 100 Awards

Once again, Brookhaven has won honors in the annual I-R 100 competition. Two scientific devices developed at BNL were each chosen to receive an I-R 100 Award. As winners, an electronic device called a triple hybrid preamplifier, developed by Dmitri Stephani, Instrumentation Division, and a medical kit for labeling human red blood cells with the radioisotope technetium-99m, the work of Suresh Srivastava, Medical Department, were judged to be among the 100 top technological achievements of the year.

Last night, Srivastava attended a banquet in Chicago, where both he and Stephani were recognized for their achievements by Research and Development magazine, sponsors of the prestigious competition. William Marcuse, head of the Office of Research and Technology Applications, was there to accept the winners' plaques for the Laboratory.

### Triple Hybrid Preamplifier

The triple hybrid preamplifier can amplify very small electrical charge impulses from various types of nuclear radiation detectors.

In these detectors, small amounts of charge are produced from the interaction of nuclear radiation with matter. Because these charges are so small, they require amplification before further signal processing.

On the market now is a device previously developed by Stephani that does the job with low electrical noise and low power dissipation. His triple hybrid preamplifier, however, is even better. It is actually made of three subminiature preamplifiers mounted on a single substrate the size of a postage stamp. Compared to the earlier device, each one of the three consumes one-third less power, is one-quarter



Dimitri Stephani holds a postage stamp-sized, triple hybrid preamplifier, magnified on the screen in the background. The preamplifier was originally developed for use in strip detectors for high energy physics experiments, where there has been a growing trend for smaller detectors.

the size and is 30% cheaper to make. Moreover, the device is 50% less noisy.

In its physical configuration and performance, the triple hybrid preamplifier is the leader among such devices. As evidence, several laboratories are copying its design.

Stephani originally developed the triple hybrid preamplifier for use with silicon micro-strip detectors with a very small capacitance. Such detectors are required for high-resolution, position-sensitive detection in high energy physics experiments.

Says Stephani, "There is a growing trend toward smaller and smaller preamplifiers. These preamplifiers give better resolution, with less noise and less energy consumption." The

first group of triple hybrid preamplifiers he made was for a detector in BNL's Alternating Gradient Synchrotron. That detector contained a total of 40 channels (14 preamplifiers). At present, Stephani is working on triple hybrid preamplifiers for a detector at CERN, the European accelerator facility, that will have 1,200 channels (400 preamplifiers).

The device can also be used in medical and nuclear electronics, electro-optical systems, and nuclear instrumentation for oil and coal exploration.

Dmitri Stephani joined the staff at Brookhaven in 1957. He is in the Instrumentation Division, where he works specifically on developing new instrumentation required in various



Suresh Srivastava's medical kit is used to label human red blood cells with technetium-99m. Compared to methods presently being used, the kit offers many improvements, such as greater speed and simplicity, use of a smaller blood sample, and better results.

experiments at the Laboratory. Last year, he received I-R 100 recognition for a trio of preamplifiers, the predecessors of the triple hybrid preamplifier.

### Medical Kit

The medical kit developed by Srivastava makes possible the instant preparation of technetium-99m labeled red blood cells for clinical use.

Technetium-99m, developed many years ago at Brookhaven, is now routinely available in all hospitals and is used in over 85% of the nuclear medicine imaging procedures carried out

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## King Named to Head Contracts & Procurement

John King has been appointed Manager of the Division of Contracts & Procurement, effective October 1. He succeeds Joseph Haeg, who will leave the post he has held since November 1984, to retire at the end of the year.

For the three months beginning October 1, Haeg will act as special assistant to Parke Rohrer, for the upgrading of contractual documents to meet the recently established federal acquisitions regulations. Speaking of Haeg's years as head of DC&P, Rohrer, Associate Director for Management and Physical Plant, said, "The Laboratory directorate deeply appreciates all the fine work he

has done, and we will miss him very much when he retires."

King has been at the Laboratory since 1980, when he joined DC&P as the Contracts Administrator for the CBA Project. Four years later, he came in from the field to Bldg. 355, to serve as the Laboratory's Purchasing Agent. In January 1986, he became Assistant Manager of the Division. Replacing King as Assistant Manager is Mary-Faith Healey, who has been at BNL for ten years, eight of those in D&CP, where she has been a Contracts Administrator, handling major R&D contracts

The first 20 years of King's long career in contracts and procurement were spent in the aerospace industry, which he left in 1974, to manage the purchasing operation for the Tokamak fusion reactor project at the Princeton Plasma Physics Laboratory. He remained at Princeton for five years.

In every field with which he has been associated, King has noted that the best purchasing decisions are made when people are fully informed. "That is my prime goal," he said, "to increase the participation and interaction of division personnel with the scientific and technical staff."

King has already initiated a team concept program to increase communication and participation. For every major procurement, an Advance Planning Procurement Team will be established to assure that technical, quality, delivery and cost areas are

(Continued on page 3)

## Selective Evacuation Drill Scheduled for October

A selective evacuation drill will be held at the Laboratory sometime in October. Len Emma, Laboratory Emergency Supervisor, said that the date and time of the drill are not being announced because, "When we announce it, people tend to do things they normally don't do: They may not drive in their carpools that day, they may leave early or they might choose to stay in their offices instead of going out into the field. But we'd like this drill to reflect, as closely as possible, the comings and goings of a typical day at the Laboratory, so it will be unannounced."

In 1981, a total evacuation drill was held at BNL. Emma explained that this drill is different in that it will be a selective evacuation, which means that different groups will be asked to leave the site at different times, primarily to prevent traffic congestion. For emergency planning purposes, the Laboratory is divided into zones, which will be evacuated sequentially, beginning with the zones located closest to a potential source of an emergency, then the next closest, and so on, until the entire site has been evacuated. Obviously, this kind of evacuation is going to take longer than the 1981 drill, and Emma emphasized that everyone's cooperation will be necessary to make it work. "Please be patient while waiting for your group to be evacuated — it's for the common good," he said.

This drill has been scheduled to verify procedures for selective evacuation in the Laboratory's Emergency

Plan. Employees, as well as visitors and contractors, are asked to leave the site in accordance with the instructions below. There are only two exceptions:

1. Essential personnel necessary for continuity of operations will be notified in advance that they should remain.

2. On-site residents are not expected to evacuate the site. Apartment dwellers should go to their quarters and stay there until the drill is over; their families are also requested to stay indoors. Those who reside in residence halls should proceed to their dorms and remain inside until the drill is over.

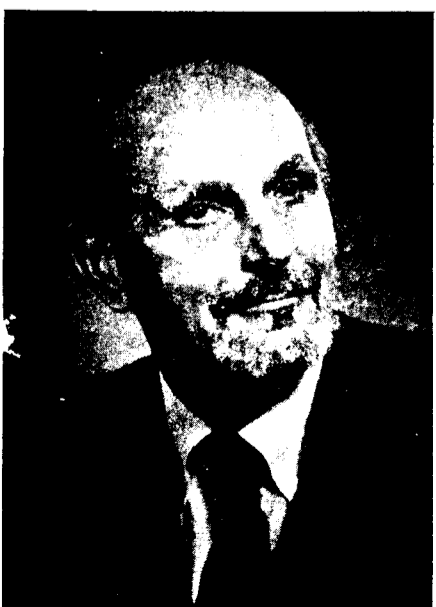
As the drill begins, the incoming light at the main gate will be placed on red, and no traffic will be allowed to enter the site until the drill is over. Therefore, if the drill should occur at a time when some employees are supposed to report for work on a particular shift, the employees will have to wait to go on duty until the drill is ended.

To know precisely when your group should leave the Lab site, read these instructions carefully:

### • Listen for the signal.

The drill will begin with a continuous sounding of the site sirens, which signals a Laboratory-wide alert. At the same time, a general call will go out via the Electron communication devices to all department and division offices, which will, in turn, notify their employees.

(Continued on page 2)



John King

Mort Rosen

## Around the Departments

**Arthur Schwarzschild** has agreed to a reappointment as Chairman of the Physics Department for a period of two years, effective October 1. Informing all employees of this action, Laboratory Director **Nicholas Samios** wrote, "The Physics Department has prospered under Arthur's guidance during the past five years, and we look forward to its continued strength, health and vitality under his leadership."

An experimental nuclear physicist, Schwarzschild has been on the staff of the Physics Department since 1958. In 1971, he began his long association with the Tandem Van de Graaff Accelerator facility, both in its assembly and subsequent research, serving as the Associate Group Leader of the Tandem Research Group. He served from 1980-83 as a member of the Nuclear Science Advisory Committee, which advises the Department of Energy and the National Science Foundation about national policy issues in nuclear physics.

### Drill

(Cont'd)

#### • Find the assembly areas.

As soon as you hear one of the signals — the alert siren or notification from the office — immediately leave your work area and go to the assembly area in your building. If you are in your own office, act as you would at the end of the day — turn out the lights, turn off appliances, etc., then proceed to the designated area. If you don't know where this is, find out now from your department/division safety coordinator. If you find yourself in unfamiliar surroundings, go to the nearest principal building and ask where the designated area is.

#### • Meet your carpool.

When all the people in your building have been accounted for at the assembly area, carpool passengers will be permitted to proceed to their usual pick-up points. Passengers should wait there until their drivers' zones are evacuated, and they can be picked up. Passengers are asked to be patient, since their buildings could be evacuated sometime before those of their drivers. All carpools should assemble on site (not at the road leading to Suffolk Meadows, as in the last evacuation drill).

#### • Wait for notification.

If you are not a member of a carpool, wait in the assembly area until notified, again via Plectron, that it is time to evacuate. It is imperative that all employees cooperate by not evacuating until their zones are notified, to maintain uncongested traffic flow. When you are notified to leave, proceed quickly but safely to your car and leave the site. All three gates will be open.

#### • A final signal.

At a point in the selective evacuation, when the traffic flow will warrant it, there will be an intermittent sounding of the site sirens, which signals a Laboratory-wide evacuation. The intermittent sirens, coupled with a Plectron general call, will announce immediate evacuation of remaining employees.

Before the end of the drill, a sweep of the Lab site will be made by the Laboratory emergency forces to see that only authorized employees remain.

The drill will be held late in the afternoon and will be terminated by 5 p.m. Normal Laboratory operations will resume at that time.

The evacuation proceedings will be reviewed the next day by coordinators and key personnel to see how well the procedures worked and what modifications might be made.

Further details about the selective evacuation drill will be included in a forthcoming Information Bulletin from the Safety & Environmental Protection Division. For more information, call Emergency Planning Coordinator Frank Crifasi, Ext. 3144.

Schwarzschild became Deputy Chairman of the Physics Department in 1978 and assumed the chairmanship for the first time in 1981. As department chairman, he has been a major force behind the new relativistic heavy ion initiative at the Alternating Gradient Synchrotron and that proposed for the Relativistic Heavy Ion Collider (RHIC).



**Arthur Schwarzschild**



**Sam Krinsky**

**Sam Krinsky** has been named Deputy Chairman of the National Synchrotron Light Source (NSLS) Department. He replaces **Mark Barton**, who had been asked to serve in that capacity on an interim basis since 1984 and who now returns to full-time research.

Speaking about priorities at the NSLS, Krinsky says, "First, we must provide users with reliable and stable beam and implement Phase II. To continue to have the best x-ray and VUV rings available, we must put insertion devices in both rings and meet the schedule. As we provide this enhanced capability to the users, we can also look in new directions, such as designing a new injection system for the storage rings for optimum performance and developing free electron laser sources. We are also very interested in the development of a compact synchrotron source for lithography, which is an important need in the U.S. semiconductor industry."

Krinsky came to BNL in 1973. After four years in the Physics Department, then four in the Accelerator Department, Krinsky joined the NSLS Department in 1982, as a physicist. He managed the commissioning of the x-ray ring from April 1983 to November 1985, then served as acting head of the Accelerator Physics Section until he assumed his new position last August.

**Derek Lowenstein**, Chairman of the Alternating Gradient Synchrotron (AGS) Department has announced that, effective October 1, **Horst Foelsche** has been named Deputy Chairman of the AGS Department

and **Theo Sluyters** will head the department's Accelerator Division.

Foelsche had managed various areas of the Accelerator Department (now the AGS Department) since he came to BNL in 1965. In 1974, he became head of the Experimental Planning and Support Division. From 1977 to 1982, Foelsche led the Injection and Extraction Task Force for the Colliding Beam Accelerator Project. He became head of the AGS Division (now the Accelerator Division) in 1982. Since 1983, he has served simultaneously as head of the Tandem/AGS Heavy Ion Project.

In a memo to department employees, Lowenstein wrote, "The office of Deputy Chairman will particularly concern itself with the AGS/Tandem, AGS/Booster and AGS/RHIC interfaces..." In addition to coordinating between several departments, Foelsche's main interest will be the accelerator physics questions that relate to the joining of the AGS, the Booster, the Tandem Van de Graaff and, ultimately, the proposed RHIC. The next upcoming project, the Booster, will be a new accelerator, one-quarter the size of the AGS, which will increase every aspect of the AGS physics program many times over.



**Horst Foelsche**



**Theo Sluyters**

As head of the Accelerator Division, Sluyters will, Lowenstein said, "pursue our ambitious upgrade efforts and, at the same time, operate the machine." In regard to those goals, Sluyters's main challenge is to get the AGS ready for accelerating the increased intensity of  $5 \times 10^{13}$  protons per pulse that will be provided by Booster injection. Another top priority is to keep the machine operating at high efficiency for the ongoing physics program.

Sluyters also comes to his position with varied experience at the AGS, where he has worked since 1964. From 1972 to 1983, he and Krsto Prelec alternately led the Advanced Source Development Group. Since 1983, he has been Deputy Head of the Accelerator Division, which he will now lead.

## I-R 100

(Cont'd)

in the U.S. today. The kit fulfills an important need in imaging organs in that it simplifies the labeling of red blood cells with technetium-99m and improves the incorporation of the radioisotope into those cells. For example, blood-pool imaging, especially as required to diagnose heart disease, is carried out routinely in hundreds of thousands of patients each year.

As explained by Srivastava, the procedure for using the kit is simple. One milliliter of the patient's blood is added to the kit. After five minutes, small amounts of sodium hypochlorite and an appropriate chelating agent are added. Then the technetium-99m is added. After 15 minutes, the resulting mixture is ready to be reinjected into the patient for imaging studies.

Existing labeling methods require prior cell separation by centrifugation, extensive washing of cells and the absence of plasma for satisfactory labeling. Compared to such methods, the new kit offers a number of advantages: No red blood cell separation is required. One-container operation allows better maintenance of aseptic conditions. Cells stay in their native plasma environment, thus eliminating any technique-related damage. In general, the procedure offers more convenience, simplicity, high labeling efficiency and greater *in vivo* stability of the label.

Suresh Srivastava first came to Brookhaven Lab in 1965 and spent two years in the Department of Nuclear Engineering. He returned to the Laboratory in 1975, in the Department of Applied Science, and two years later joined the Medical Department. At present, he is head of the Radionuclide and Radiopharmaceutical Group within Medical. His major research interest is radiopharmaceutical science as applied to nuclear medicine.

### Past Winners for BNL

In recent years, the Laboratory has taken an active interest in sponsoring entries in the I-R 100 competition, largely through the efforts of William Marcuse. Here are past winners:

#### 1985

Richard Lambrecht — ocular radioactivity monitor.

Dimitri Stephani — trio of electronic preamplifiers.

#### 1984

Richard Lambrecht — radiopharmaceutical delivery system.

#### 1969

Meyer Steinberg — concrete polymer composite material. — Mona S. Rowe



Laboratory Director **Nicholas Samios** addressed the fourth class of police recruits to be graduated this year to let the eight new BNL patrol officers know how important a function they will serve. As Samios pointed out at the graduation ceremony on September 19, their job is tough, for not only will they be responsible for the security of the Lab site and its big machines, but they will be ensuring the safety of BNL's employees, residents, long-term guests, daily visitors and summer tourists.

Members of this class ranged in age from 21 to 46, and collectively had more than 50 years of law enforcement experience. The class included: Honor Graduate **Christopher Solimine**, Firearms Master **Thomas Dolan**, **John Borstock**, **Iris Caceres**, **George**

**Misson**, **Mark Opisso**, **Susan Shannon** and **Jamie Sims**.

The new graduates were the first to use the Police Group's new rifle and pistol range, which was completed on September 10 and features sheltered stations at each of the prescribed firing distances and high earth berms for protection. In addition to Training Officer **Kathy Walker's** instruction, this was the first recruit class to receive tactical training from DOE's Central Training Academy instructors, who were on site September 15-19. The advanced training included rappelling and rooftop descents, night searches and recoveries, and practice responding to terrorists, hostages and barricaded-suspects.

—photo by Rosen

## King

(Cont'd)



Joseph Haeg

Mary-Faith Healey

resolved up front. This team will consist of representatives from DC&P, Quality Assurance, Legal and the appropriate project scientist or engineer. King believes this process will result in better communications, quicker turnaround and better results.

All of this, King said, would not be possible without IPAP, the system which has integrated requisitioning, purchasing, accounts payable, receiving, inventory management and order entry functions at the Lab. "I am a great proponent of the IPAP system as a management tool," said King. "In DC&P, we are realizing the impact it is having on the procurement process, not only in cost reductions, but in terms of freeing personnel from tons of paperwork and enabling them to react in a timely fashion to the Laboratory's needs."

In his new position, King will work towards realizing the full potential of the team concept, which, in turn, will assure that the scientific goals of the Laboratory are met in the most timely and cost-effective manner. He is looking forward to meeting this challenge with the help of the BNL team, which King called "the finest group of people I have had the opportunity to be associated with — both professionally and technically."

## Another Reason To Buckle Up

If you're driving to or around the Lab next week and you get pulled over by a BNL patrol officer, chances are the officer will be most interested in whether or not you're wearing your seat belt. And if you *have* buckled up, you'll get a ticket — to the movies!

While those wearing seat belts will be rewarded, those who are not belted in will be reminded that buckling up is the law in New York State. Edmund Wojcicki, who heads the Safeguards & Security Division (S&SD), explained that the random checks are "a kind of incentive program to encourage employees to wear their seat belts and to get them to think about their driving habits at the Lab in general. It will also allow the patrol officers to interact with employees in a positive manner. We'd much rather meet people by giving them these tickets than by handing them a traffic ticket or at an accident scene." The program will continue until S&SD runs out of tickets to give away.

For this random distribution, S&SD obtained a large quantity of the discount movie theater tickets that are on sale at the BERA Sales Office for \$2.75 each. They are good at any United Artists Eastern Theater at all times, until the expiration date next summer. Special engagements are an exception.

## Coming Up

Stanton Cohn will give the Keynote Address at the International Symposium on *In Vivo* Body Composition Studies to be held at BNL from September 28 to October 1. He will speak on "New Concepts of Body Composition," at 4 p.m. on Monday, September 29, in Berkner Hall. Cohn, who retired from BNL earlier this year, was with the Medical Department for 27 years and is still affiliated with the Department as a research collaborator.

Robert Peter Gale, the American physician who treated radiation victims of the April 26 accident at the Chernobyl nuclear power plant in the U.S.S.R., will deliver an AUI Distinguished Lecture on Tuesday, October 7, at 8 p.m., in Berkner Hall. Gale, who is professor of medicine-hematology at the University of California Medical Center at Los Angeles, will draw on his experiences to discuss the medical aspects of the Chernobyl accident, in particular the combined effects of whole-body radiation, thermal burns and traumatic injuries. The lecture is open to the public.

## DOE Establishes New Fellowship

Applications are now being accepted for the new Alexander Hollaender Distinguished Postdoctoral Fellowship established by the Office of Health and Environmental Research (OHER) in the Department of Energy (DOE). The fellowship will provide support for outstanding recent recipients of doctoral degrees in conducting OHER-supported energy-related research in the life, biomedical and environmental sciences. The program honors Alexander Hollaender, a pioneer in the field of radiation biology and winner of DOE's Fermi Award, who has been affiliated with BNL's Biology Department for many years. Fellows will receive a stipend of \$35,000, and appointments will be made at participating DOE and university laboratories.

Fellowship applicants must have received a research doctoral degree within the past two years, or hold MD or DVM degrees and research experience in an appropriate internship or residency program. The first appointments are scheduled to begin in the spring of 1987. Application deadline is January 20, 1987. For more information write to Hollaender Postdoctoral Fellowships, University Programs Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117, or phone (615)576-3190.

## Scholarship Alert

Application forms for the 1987 AUI Trustee Scholarship forms are now obtainable from the Office of Scientific Personnel. Children of regular employees of BNL are eligible to compete for up to 12 scholarships, renewable for up to four years of study towards an academic degree.

In addition, up to three scholarships may be awarded to BNL and National Radio Astronomy Observatory (NRAO) employees' children who are Black, Hispanic or Native American. One such scholarship is open to qualified children of employees at both BNL and NRAO, and one may be awarded to an additional applicant from either institution on a competitive basis.

## Dorian Wind Quintet In Concert Next Week

America's reigning woodwind quintet, the Dorian Wind Quintet, will give a concert at Berkner Hall on Tuesday, September 30. The performance will begin at 8:30 p.m.

This remarkable ensemble, which consists of flute, oboe, clarinet, bassoon and French horn, was formed back in 1961 during a summer at Tanglewood, where they were declared the highlight of the musical season. Today, over two decades later, the group is internationally renowned for their performances of commissioned scores, numerous recordings, residency appointments and sold-out concert tours.

On the program September 30 are J.S. Bach's Concerto No. 2 after Vivaldi (S. 593); La Cheminée du Roi René by Darius Milhaud; Six Bagatelles (1953) by György Ligeti; a Mozart trio, Divertimento No. 4, K. 439D; and Anton Reicha's Quintet in E Flat, Op. 88, No. 2.

Tickets for the concert will be sold at the door the night of the performance. They are \$9 for general admission, \$6 for students and those over 65, and \$5 for those under 18.

The Dorian concert is the first of

## Tickets for Islanders

Tickets for the 1986-87 regular hockey season will go on sale at the BERA Sales Office in Berkner Hall on Wednesday, October 1, at 8 a.m.

BERA's eight seats for the forty home games at Nassau Coliseum are located in Sections 319J and 321A. Tickets are priced at a special reduced cost of \$20.50, a savings of \$1.50 per ticket.

Copies of the home game schedule will be available at the BERA Sales Office on Monday, September 29.

Buying limitations:

- Tickets will be sold in pairs only.
- During the initial sale, tickets for the Ranger games will be limited to two (2) tickets per employee.
- The BERA Sales Office will give no refunds or make any ticket exchanges after a sale is completed.

In the event the Islanders climb into the NHL playoff and championship races next spring, only those employees who support the BERA Ticket Service Program by buying hockey tickets during the season will be eligible for entry in the special drawing for game tickets.

## Hospitality News: Aerobic Dance Classes

The Hospitality Committee offers afternoon aerobic dance classes Monday, Wednesday and Friday, from 1:15 to 2:15 p.m., at the Recreation Building in the apartment area. The fee is \$2 per class.

Wives of Laboratory employees and guests are welcome. Children are permitted to attend; however, baby-sitting service will not be provided.

Each scholarship will be in the amount of \$2,000 per year. Qualified applicants are the children of BNL employees who began regular full-time or regular, eligible part-time employment no later than November 1, 1986, and who are employed by BNL at the time the award is announced; or children of retired employees or of employees who died when in regular service at the Laboratory. Stepchildren are eligible if the employee regularly claims the child as a dependent for income tax purposes.

Applicants must also be secondary school seniors who will be graduating during the current academic year and entering college by fall 1987.

Applications must be filed by November 1, 1986. Application forms are available at the Office of Scientific Personnel, Building 185A.



The Dorian Wind Quintet

five concerts in the 1986-87 Concert Series arranged by the BERA Concert Committee. A highlight of this season will be three concerts by the Concord String Quartet, playing in the course of this and the following season the entire cycle of Beethoven string quartets. For that reason, music lovers should consider buying block tickets, which are good at any concert. Block tickets may be purchased the night of the first concert at \$6 each, with a minimum purchase of five tickets.

## Equipment Demos

Amersham, Bicon, Harshaw/Filtrol and Nuclear Data are among the companies that will be represented in a demonstration of equipment that will be on display in the lobby of Berkner Hall from noon on Monday, September 29, to noon on Wednesday, October 1.

On Thursday, October 2, the Rupp & Bowman Company, marketers of health and science products, will be exhibiting incubators and ovens by Heraeus, centrifuges by Silencer, isoelectric focusing devices by Isolab, an intelligent scanner by Rees Scientific, and tissue culture products by NUNC. The exhibit will be set up in the lobby of Berkner Hall from 8 a.m. to 3 p.m. Refreshments will be served.

## Service Awards

The following employees received service awards during the month of September:

### Thirty-five Years

Lola E. Kopp ..... Applied Science  
Ralph E. Weston Jr. .... Chemistry

### Thirty Years

Michael F. Degen ..... Nuc. Energy  
Robert F. Glasmann ..... AGS  
James R. Powell ..... Nuc. Energy

### Twenty-five Years

Helen M. Caisey ..... Budget Office  
Kenneth J. Foley ..... Physics  
Anthony J. Fuoco ..... Nuc. Energy  
Barry M. Gordon ..... Applied Science  
Sanford Lacks ..... Biology  
Rosalie Piccione ..... Con. & Proc.

### Twenty Years

Harold C. Berry ..... Applied Math  
Suh Urk Chung ..... Physics  
John H. Cusack ..... Nuc. Energy  
Richard J. Ferdinand ..... Accel. Dev.  
Junichi Iwai ..... Medical  
Sidney H. Kahana ..... Physics  
Thomas LoConte ..... Applied Math  
Austin J. McGeary ..... AGS  
Melvin Month ..... Accel. Dev.  
Edward J. Sujeski Jr. .... Plant Eng.  
Hiroshi Takahashi ..... Nuc. Energy

### Ten Years

John A. Benjamin ..... Physics  
Craig S. Diaz ..... Reactor  
Mary-Faith Healey ..... Con. & Proc.  
Stephen A. Kahn ..... Accel. Dev.  
Janice A. Lamb ..... Director's Office  
Alex J. Reben ..... Photo. & Gr. Arts  
Richard S. Sapienza ..... Applied Science  
William G. Shier Jr. .... Nuc. Energy  
Linda A. Woodson ..... AGS

## BROOKHAVEN BULLETIN

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ANITA COHEN, Editor  
MARSHA BELFORD, Senior Reporter  
LIZ SEUBERT, Reporter

35 BROOKHAVEN AVE., UPTON, N.Y. 11973  
Telephone (516)282-2345



## Astronomical Society

The open observatory night this month is scheduled for tonight, September 26, beginning at dusk, with next Friday as the rain date. Admission is \$1 for non-members and will be collected at the observatory. Those interested in attending should call Bob Mills, Ext. 5043, or Rick Jackimowicz, Ext. 3803, during the afternoon of the scheduled date to check weather conditions and date changes.

## Bowling

### Purple League

High games were bowled by Jim Petro 231, Lee Barberich 230/201/610 scratch, Joe Ferrante 225, Al Borrelli 207, Frank Gaetano 202, Carol Beckner 186.

### White League

Sharon Smith rolled a 212, Al Pinelli 211, Bob Malachowsky 211, Ken Riker 206, Lillian Cahill 200, Sharon Moore 183, Donna Riendeau 181.

### Red/Green League

J. Morris had a 244/615 scratch, H. Marshall 231/207, E. Carter 221, D. Adams 214, K. Asselta 213, S. Dimaiuta 210, R. Larsen 208, J. Connelly 203, P. Ouvrard 203, D. Jesaitis 201.

### Pink League

Andrea Epple rolled a 177, Renie Rosati 169.

## R/C Model Aircraft Club

A meeting of the R/C Model Aircraft Club will be held at noon on Tuesday, September 30, in Berkner Hall. All interested are invited to attend.

## Rifle & Pistol Club

Just a reminder that meetings are held on the second Wednesday of the month, and the next scheduled meeting is October 8. Meetings begin promptly at 5:15 p.m. in Room 202, Bldg. 911B.

The club is now holding indoor rifle and pistol shooting practice. For rifle information, call Ed Elliott, Ext. 4636; for pistol information, call Otto Jacobi, Ext. 4428. Anyone interested in trap shooting should call Bill Dalton, Ext. 4428.

## Swim Club

The Swim Club will meet on Thursday, October 2, at 5:15 p.m. at the BNL pool. All those who can swim two laps of the pool without stopping using the crawl stroke are invited to swim with us. For more information, call Marsha Belford, Ext. 5053, or Peter Heotis, Ext. 2304.

## Classified Advertisements

### Autos & Auto Supplies

- 77 YAMAHA - GTR 80 dirtbike, needs minor work, \$60. 878-0480, eves.
- 79 BUICK REGAL - a/c, a/t, p/s, p/b, excel. cond., \$2,400. 744-7734 after 6 p.m.
- 77 CHEVY - 85k mi., \$750; 67 Mustang, 85k mi., \$3,000. 728-3183.
- 84 SUZUKI - RM250 dirtbike, excel. cond., many extras, \$1,200; 84 Honda, XR350R dirtbike, excel. cond.; 69 Mustang Fastback, good running cond. 878-6074.
- 78 DODGE MONACO - 2 dr., 8 cyl., white, 95k mi., \$1,000 or best offer. 924-8722.
- 76 GRANADA - rebuilt 302 V8, new trans., rubber, exhaust, am/fm cass., 40 ch. CB, asking, \$1,500. Ext. 3464 or 737-1458.
- 66 MUSTANG - coupe, white, for parts or restoration, \$250. 727-0082.
- 81 HORIZON - 71k mi., std. trans., 4 dr., \$1,000. Mike. 477-2817.
- 79 BUICK LeSABRE - 350 V8, a/c, 4 dr., p/s, p/l, am/fm, good cond., asking \$2,000. Ext. 7795 or 589-8331.
- 80 OLDS TORONADO - red, V8, diesel, all power, orig. owner, clean, \$4,000. Ext. 3794.
- 79 HONDA CIVIC - 4 spd., am/fm cass., green and rust w/dents, runs OK, \$950. Tom, Ext. 7196 or 286-2505.
- 80 200SX - a/c, 5 spd., htchbk, sunroof, 76k mi., am/fm, p/s, p/b, runs well, \$2,800 neg. 654-0830.
- TIRE - w/rim, 14", good for spare, \$15; (2) 13" snows, \$10 ea. Janet, Ext. 2345, 929-8152.
- 66 FORD - Mustang, not running, \$500. 399-0942.

## Social Club

The Social Club will meet for a canoe trip down the Peconic River on Saturday, October 4, at 9 a.m., at the Peconic Paddler, Peconic Avenue, Riverhead. The cost will be \$25 per canoe. Call Doris Terry, Ext. 2228, for reservations.

The next meeting of the Social Club is scheduled for Tuesday, October 14, at 12:15 p.m., in Room D, Berkner Hall. The club will then discuss the upcoming road rally and make plans for winter ski trips.

## Cafeteria Menu

### Week of September 29

#### Monday, September 29

Chicken noodle soup	(cup) .65
	(bowl) .85
Baked chicken w/herbs & one veg.	2.65
Skinless chicken w/herbs & one veg. (lite-weight)	2.65
Baked macaroni & cheese w/one veg.	2.25
Hot Deli: French bread pizza	2.45

#### Tuesday, September 30

U.S. Senate bean soup	(cup) .65
	(bowl) .85
Cajun sausage & rice w/one veg.	2.55
Scalloped ham & potatoes w/one veg.	2.55
Sliced melon & yogurt plate (lite-weight)	2.25
Hot Deli: Grilled Reuben	2.55

#### Wednesday, October 1

Turkey rice soup	(cup) .65
	(bowl) .85
Roast pork loin w/apples & prunes	2.55
Baked meat loaf w/one veg.	2.55
Broccoli & cheddar quiche w/one veg. (lite-weight)	2.45
Hot Deli: Smoked turkey	(bread) 2.40
	(roll) 2.55

#### Thursday, October 2

Purée of split pea soup	(cup) .65
	(bowl) .85
Spaghetti & Italian sausage w/French bread	2.65
Shrimp & broccoli stir-fry over rice	2.75
Antipasto assortment (lite-weight)	2.45
Hot Deli: Baked ham	(bread) 2.40
	(roll) 2.55

#### Friday, October 3

New England clam chowder	(cup) .65
	(bowl) .85
BBQ spareribs w/one veg.	2.80
Broiled fresh fish w/one veg. (lite-weight)	2.85
Hot Deli: Meat loaf	(bread) 2.45
	(roll) 2.60

## Arrivals & Departures

### Arrivals

Douglas W. Gillette ..... DNE

### Departures

This list includes all employees who have terminated from the Laboratory, including retirees:  
**Robert R. Barberich** .... Sfgdrs. & Sec.  
**Toni Casoria** ..... DNE  
**Eric A. Myers** ..... Physics  
**Swaminathan V. Raman** ..... DNE

- 85 RENAULT ENCORE - am/fm, 40+ mpg., 28k mi., excel., \$4,100. Ed, Ext. 3293 or 477-2880, eves.
- 65 GMC PICKUP - ¾ ton, V6, needs brakes, \$250. Steve, 929-3654 after 6 p.m.
- 76 VOLVO - sta. wagon, high mileage, body excel., taupes, seats seven, motor needs work, \$1,995. 475-5430.
- 81 PLYMOUTH RELIANT K - a/t, p/s, 4 dr., 4 cyl., 59k mi., new tires, excel. cond. in & out, \$2,800. Ext. 3016.
- 77 HONDA - htchbk, new trans., clutch, brakes, 4 spd., 34 mpg., \$490. Ext. 3164.
- 65 MUSTANG - like new, all orig., hardtop, low mileage, orig. owner, \$5,200. 929-4701.
- 78 DATSUN PICKUP - king-cab, new clutch, carb, muffler, runs and looks very good., Joe, Ext. 3464 or 281-7683.
- 80 PONTIAC GRAND PRIX - p/s, p/b, a/c, am/fm 8 trk., excel. cond., must see, \$3,500. Ext. 5234 or 286-3377.
- 80 HONDA - CB750, custom, 7k mi., \$1,200. 286-0654 after 6 p.m.
- 72 FORD MAVERICK - std. trans., 6 cyl., good running cond., Ext. 2950.
- 77 PONTIAC - wagon, full size, good cond., 115k mi., \$1,200. Ext. 4061 or 475-8406.
- 78 NOVA - new tires and exhaust, excel. running cond. Lisa, 567-5336.
- 77 OLDS REGENCY - 4 dr., new Michelins, loaded, orig. owner, garaged, \$3,950 neg. Ext. 3392.
- 77 PLYMOUTH - 2 dr., 6 cyl., \$1,000. Frank, Ext. 2375 or 475-5395.
- 80 MONTE CARLO - turbo, 58k mi., p/s, p/b, p/w, a/c, mags, cruise, am/fm, garaged. Ext. 4689.
- 67 TOYOTA - 3 spd., runs well, \$150. Hank, Ext. 3848 or 472-0553.
- 74 FORD MAVERICK - 6 cyl., 93k mi., good local transp., \$450. Ext. 4502.
- RADIO - new, for 4 spkrs., make offer. Gordon, Ext. 4095.

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

69 FORD - Fairlane, V8, a/t, 4 dr., runs very well, new tires, trans., \$400; Tire and rim, Ford truck, 15" radial, good for spare, \$15. Jack. Ext. 7869.

50 FORD - pickup, restored in 83, collision damage, \$1,400; 75 BMW, motorcycle, very good cond., \$2,500; Ford 3 spd., trans., good cond., \$50. Roger, Ext. 4677 or 878-8847.

80 VOLKSWAGON - Rabbit, diesel, 4 dr., 4 spd., am/fm, a/c, \$1,600; 79 Mercury Marquis, wagon, 302 V8, a/c, a/t, p/s, p/b, am/fm stereo, roof rack, hi mi., good cond., \$1,650. 821-0695.

80 TOYOTA COROLLA - a/t, a/c, new tires, muffler, 58k mi., runs nicely, must see, asking, \$2,000. Ext. 7578.

84 PONTIAC FIERO - a/c, am/fm stereo cass., a/t, mint cond., asking, \$7,800. Mike, Ext. 7625 or 924-0341.

73 HONDA - 750F, custom seat, trunk, windshield, mint, \$495.; 73 Cadillac, Coupe deVille, good cond., reliable, \$450. Frank, Ext. 2022 or 399-4480.

### Boats & Marine Supplies

16' DORSETT - fiberglass w/cuddy cabin, hull only, \$750. Jim, 281-2849.

21' BAYLINER - 1986, Cierra, sleeps 5, 135 hp Volvo I/O, full canvas, \$19,500. 878-0480 after 6 p.m.

KAYAK - Kevlar, fox model, sidewinder paddle, air bags, & spray skirt, mint cond., \$700. 878-1640.

25' BROADWATER - 1971, cabin cruiser, sleeps 4, stand-up head, many extras, ½ glass, excel. 821-1525.

### Miscellaneous

ELECTRIC GUITAR - Aria Pro II, whammy, fine tune, hard case, new cond., \$160. Dave, 821-0250.

MOVING SALE - 7 pc. Italian provincial dining room set, 5 chairs and buffet, \$550; 2 club chairs, 2-tier chandelier, more. Al, 273-5574.

3M DISKETTES - 5¼", ds/dd, new \$10/10; portable typewriter, \$20. Jim, Ext. 3372.

WURLITZER PIANO - top of the line, 8 yrs. old, colonial style, excel. cond. 298-4398, eves.

GIRL'S BIKE - 24", 10 spd., good cond., \$35; chairs, upholstered green, \$20 ea., 2/\$30; bathroom sink w/cabinet, toilet, \$25 ea., \$40/both. Witkover, Ext. 4607 or 386-0452.

FREEZER - United, 20 cu.ft., white w/lock & key, right hinged, excel. cond., asking \$150. Ext. 3464 or 737-1458.

COAL STOVE - Franco Belge, 22,000 btus, \$150. 878-2482, eves.,

LAWN MOWER - Rickel, 22", 3.5 hp, side discharge bag, 2 yrs. old, very good., \$50. Ext. 2830.

BULB PLANTER - flashlights, \$1/ea; bed frame, \$7; record player, \$10. Joe, Ext. 2898.

TOASTER - oven/broiler, \$15; laundry box, \$2; Dov, Ext. 4552, home Ext. 3105, fri. & sat. only.

DOLL COLLECTION - assorted for serious collectors; (2) pine twin bed frames, \$30/ea. 727-0082.

COLOR TV - 19", Hitachi, 2 yrs. old, excel. cond., \$120. floor lamp, \$10; table lamp, \$5. 924-8722.

ANTIQUE STATIONARY DECK - fine wood top, painted base, \$50. 924-5419 after 3 p.m.

TYPEWRITER - electric, \$50; roof shingles, grey, \$7/pkg.; hedge trimmer, long cord, \$40; baby carriage, \$25. Ext. 2529.

ORCHIDS CYMBIDIUMS - flowering size, \$15/ea. or \$50 for five; Lortone lapidary polishing machine w/compounds, \$20.; 2 folding beds, 3" mattress, \$20/ea. or \$35/both. Ext. 2826 or 928-8579.

CHAIN LINK FENCE - including gate, fence 150'x4' high \$2/foot. 744-7945.

REFRIGERATOR - freezer, Sears, 16 cu.ft., excel. cond., \$125. 744-8921.

PIANO - Horace Waters, 5' grand, rebuilt, restrung, very good sound, appearance, \$2,000. George, Ext. 3635 or 759-1328.

LIVING ROOM SET - contemporary sofa, love-seat, chair, geometric pattern, brown, white, rust, excel. \$600. 325-8165.

GATE LEG TABLE - w/2 leafs; Faberware convection turbo over; coal stove, Surdiac Southport, mc/c512, 44,000 btu, auto. feed; wood door weatherstripped jams, 1¾x36x6"8". 475-0509.

GENERATOR - Powermate, 5 kw, 120/440, 4 outlets, B&S, 11 hp engine, new in sealed container, \$675. Ext. 2492 or 475-8658 after 6 p.m.

PENTAX - "Spotmatic" body, reasonable price. Bill, Ext. 2378.

COLOR TV - not working, good for tubes, picture tube only, 3 yrs. old, Admiral. Rick, Ext. 3932.

ROCKER - padded, swivel, \$40; recliner, \$40; 90" sofa w/loose cushions, \$75. Ext. 2460 or 744-9822.

CHILD'S DRESSER - white, \$40; rug, blue, shag, oval, 6'x8', \$30; headboard, wood, \$15. Kevin, 929-8533.

COMFORTERS - featherdown, (2) twin, Scandia quality and 4 pillows, like new, \$200. Ext. 4106 or 689-8675.

SEWING MACHINE - like new, Norelco, \$100. 718-347-3087.

WATER TANK - fiberglass, like new, \$10. 475-1844.

FREEZER - Whirlpool, upright, 19 cu.ft., 6 mos. old, moving, new \$600, now \$395. 728-6353.

CAMERA - Chinon, 35mm lenses, 50mm f/1.9, 35mm f2.8, mirage flash unit. \$250. Ext. 3318.

GIRLS BIKE - 20", garaged, excel. cond., heavy duty, training wheels, \$40. 286-0259.

LOVE SEAT - and sofa, colonial, \$250; Magnavox console stereo, \$75. Bob, 289-1705 after 5 p.m.

KENWOOD TK-40 - stereo, amplifier-tuner, needs outputs, \$45. Ext. 2403 or 744-4208.

BEAR HUNTER - bow with sight and quiver, left handed, \$100. Ext. 4312.

MATTRESS - king size, 78"x78", super-orthopedic, mint cond., \$80; wood bed frame, \$10. Aron, Ext. 7545.

### Yard Sales

SOUND BEACH - 24 Glenwood Rd., Sept. 26-27-28, 10 a.m.-4 p.m., priced low, everything must go.

SHOREHAM - 3 Farm Rd., Briarcliff to Highland Down to Farm, Sept. 27-28, furn., books, kitchenware, glassware, collectibles.

### Free

TV - antenna & stand, good cond., Ext. 7505

77 PINTO WAGON - 4 cyl., 4 spd., runs, good trans. Dave, Ext. 4428.

WILL PICKUP — your junk, tired car or light truck. Ext. 4081 or 874-3844.

### Lost & Found

LOST - solar Casio calculator, around or in Chemistry Dept. Miguel Bastos, Ext. 4393 or 3010.

### Car Pool

QUEENS-NASSAU - van, need one. Fred, Ext. 3254.

MASTIC - need ride to/from Lab, 8:30-5:00 p.m. shift, will pay. Jody, Ext. 2907 or 395-3963 after 6 p.m.

GREENPORT - or vicinity. Ed, Ext. 3293 or 477-2880.

### 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 Rent

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, many extras, beach, pool, tennis, golf, fall special, Lab employees & families only. \$300/wk. 585-9149.

CATSKILLS - 3 bdrm. chalet w/sleeping loft, fully furn., rent for fall foliage or deer hunting. Judy or Kay, Ext. 3595, or Bea, Ext. 3642.

SHIRLEY - 1 mi. from Smith Point, 8 mi. to BNL, immaculate, 3 bdrm. ranch, l/t, d/r, eik, util. rm., w/w appl., fenced in yard, quiet st., \$750 + util. 744-5448 after 5 p.m.

WADING RIVER - fully equipped house, share, & cat sit, off season, non-smoker, \$250/mo. + ½ utilities, security. 929-8443.

MEDFORD - Blue Ridge Condo, 1-2 bdrm. Adam's Ranch, a/c, carpeting, washer/dryer, golf, pool, tennis, \$700 mo. + util. 589-3545 or 588-2389.

HAMPTON BAYS - winter rental, 2 bdrm. waterfront house, 10/1/86 to 4/30/87, non-smoking, no pets, \$390/mo. + heat & util. 728-2401 eves.

SPRINGHILL, FL - West Coast, 2 bdrm. house, washing machine, tele., near gulf, swimming, golf, library, shopping, \$350/mo. Ext. 4530 or 261-2719.

MT. POCONO - 3 bdrm. chalet, sleeps 10, 15 min. to ski area, tennis, pool, lake on property, weekly & wknd. rates. Ext. 3164.

CENTER MORICHES SO. - 3½ lg. rms., priv. ent., full bath, new refrig., carpet, no children/pets, 1 mo. sec., 11/1 occupancy, \$550/mo. pays all. 878-0480 eves.

MASTIC BEACH - lg. 1 bdrm. apt. w/priv. ent., nice neighborhood, near marina, \$500/mo. incl. heat. Jim, 281-2849.

SHOREHAM - lovely 4 bdrm. house, 2 bath, full bsmt., deck, gar., all appl., SWR school dist., Oct. 1. 744-5412 between 5-9 p.m.

### For Sale

SHOREHAM NORTH - 4 bdrm., Colonial, 2½ baths, den, f/p, bsmt., fenced, patio, formal dining rm. 744-1750.

ROCKY POINT - 3 bdrm. ranch, l/r w/fp, fam. rm., full bsmt., deck, town water, treed, parklike, lg. play area. 282-2017 or 744-7708.

MILLER PLACE - no. of 25A, 4-5 bdrm., l/r w/fp, cn. kit., full bsmt., hard wood floors, gar., treed ½ acre, poss. m/d, \$145,000. Ext. 2529 or 473-7902, eves.

BRENTWOOD NO. - 7 rms., Colonial, country kitchen, 1½ baths, gar. w/auto. opener, full bsmt., fully vinyl sided, w/w carpeting & many more extras, excel. cond. Al, 273-5574.

CALVERTON - mobile home, over 55, 2 bdrm., l/r, kitchen, bath, washer, dryer, patio, awning, shed, mint, \$46,000. 727-2604 after 5 p.m.

STONY BROOK - 4 bdrm. expanded cape, d/r, den, 2 full baths, l/r w/fp, oak floors, all appl., full bsmt., nice quiet neighborhood, \$164,500. 751-8240 eves.

### Wanted

TRAINS - Lionel, American Flyer, accessories, any cond., brings good price. Carole, Ext. 3362 or 924-4097 eves.

RENTAL - bright, airy, clean rm. or apt., close to Lab, quality tenant. Ext. 7657.

KITCHEN-SET/LIVINGROOM - wicker or other lightweight material; kitchenware, pots, crockery, etc. Torsten, Ext. 3817 or 282-3097.

WOOD STOVE - air tight, lg., good cond., reas., Hank, Ext. 3848 or 472-0553.

FREEZER - reas., for church use in food aid for needy. George, Ext. 7654.

PAINTER - for rust proofing exterior metal grill work. Ext. 2492 or 475-8658 after 6 p.m.

SOPRANO - to sing with on-site octet. John, Ext. 2617 or Janet, Ext. 2345.

JOHNSON/EVINRUDE - 1969-1976, 25 h.p., lower unit. Brian, 757-1581.

WASHING MACHINE - clothes dryer, vacuum cleaner. Cheryl, 325-1511.

ROOMMATE - Yaphank, 8 min. from Lab., \$250 incl. all. 924-9128.