BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

All Major BNL Machines Now Up and Humming

A major reason for BNL's creation in 1947 was to provide researchers with unique and powerful machines that might not otherwise be available to them at their own universities or laboratories.

Brookhaven has fulfilled that mission well: Today, some 3,300 users annually come to the Lab to do research on its major machines.

From funding to fine-tuning, many factors have to fall into place for all of BNL's major user facilities to be operational at any one time. As a result, this is a special occurrence. But, like the recent emergence of the 17-year cicada, the right environment and events have today been achieved, so that all of the Lab's major machines, both big and little, are up and humming at the same time.

"It's a good feeling," said BNL Director Nicholas Samios, "to survey the Laboratory and see all our forefront research facilities operating and the scientific community actively pusuing its research goals."

Two of the facilities have just become operational — one for the first time and one after a long hiatus. On Wednesday, June 19, the High Flux Beam Reactor (HFBR) reached its operating level of 30 megawatts (MW). Earlier this week, at 5:11 p.m. on Tuesday, June 25, protons were extracted from the Booster for the first time and sent down the tunnel toward the Alternating Gradient Synchrotron (AGS).

High Flux Beam Reactor

Built in 1965, the HFBR, has long been the leading U.S. reactor for research involving external neutron beams. Now that it is again fully operational, scientists from many different disciplines are returning to BNL to use the reactor's unique ability of supplying neutrons outside of its core, to probe the nature of matter at the nuclear, atomic and molecular levels.

The HFBR was restarted on May 15, and since then it has steadily climbed through a series of operating tests to reach 30 MW.

The reactor had been shut down for two years, while a thorough safety review was conducted by the U.S. Department of Energy (DOE) and BNL. During the review period, Reactor personnel went through extensive training and testing, said Tim Powers, an HFBR supervisor (see Brookhaven Bulletin, May 24, 1991).

Now that the reactor is operating at 30 MW, work is under way to restore the nominal power level to 60 MW. Additional safety analyses and thermal-hydraulic testing will be required to provide assurance that operation at higher power levels is safe.

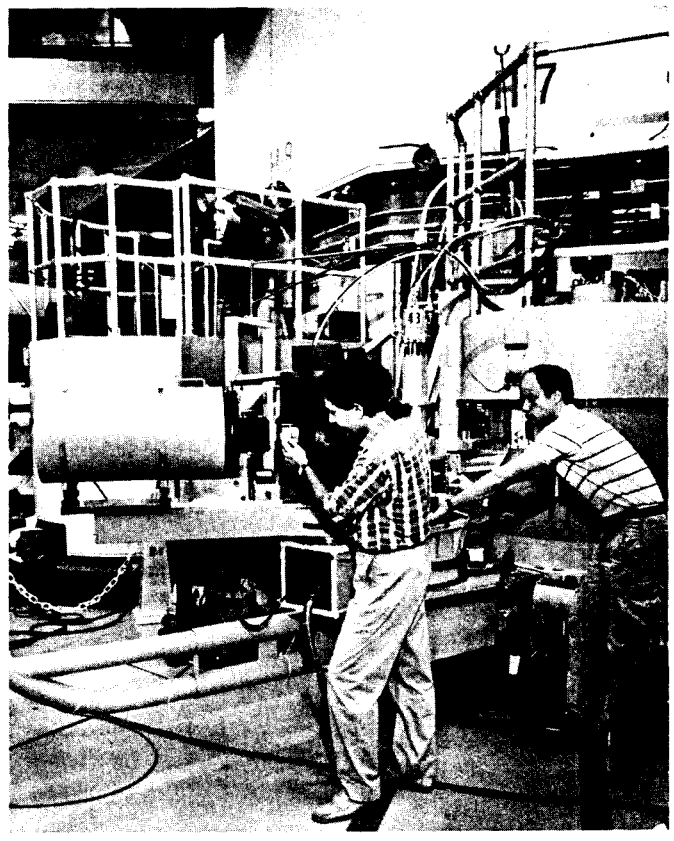
Booster, Linac and AGS

Under construction since 1986, the Booster is an accelerator one-quarter the size of the 800-meter AGS. The Booster will preaccelerate both protons from the Linac and heavy ions from the Tandem Van de Graaff.

When these particles are extracted from the Booster to the AGS, the Booster will increase AGS proton and polarized proton intensity, and allow the AGS to accelerate heavy ions up to the mass of gold. This is an important prerequisite for the AGS's serving as the injector for the Relativistic Heavy Ion Collider (RHIC), an accelerator 3.834 kilometers in circumference now being built on site.

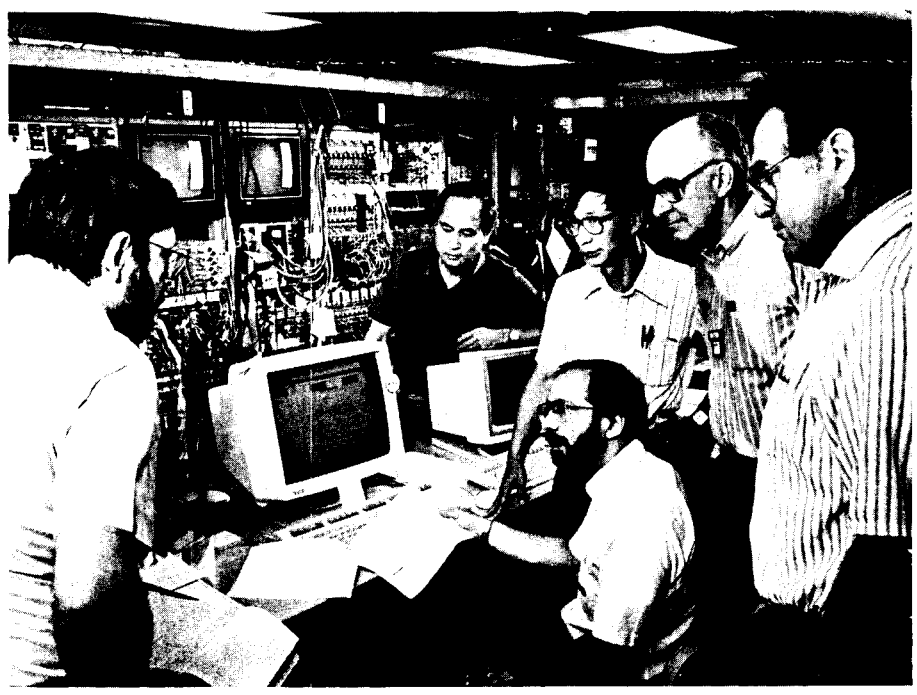
The AGS proton beam starts with preacceleration of negative hydrogen ions to 200 million electron volts (MeV) in the Linac — a linear accelerator more than 163-meters long. The Linac is also the direct source of particles for some experimentation. For example, in BLIP, the Medical Department's Brookhaven Linac Isotope Producer, radioisotopes have been made for medical users, industry and research, since 1972.

Particles that travel the whole length of the Linac will now be preaccelerated in the Booster. Extraction of the proton beam from the Booster was the final milestone along the road to Booster proton commissioning, following the earlier achievements of beam circulation and acceleration to top energy that were accomplished over the past few weeks.



Researchers are returning to the High Flux Beam Reactor (HFBR) now that it has reached the 30-megawatt operating level. Here, Leon Rebelsky (left) and Peter Gehring of BNL's Physics Department prepare an experiment on beam line H-7, while behind them, James Biancarosa, Physics, fills a cryostat on H-8.

Photos on this page by Roger Stoutenburgh



Running today, the Alternating Gradient Synchrotron (AGS) will shut down on Monday for scheduled maintenance. The successful completion of Booster proton commissioning promises that many experiments next year will profit from an even more intense proton beam at the AGS. One of those is rare kaon decay experiment 787, some of whose members are shown here consulting during the current run: (seated) Laurence Littenberg, (standing, from left) James Frank, Kelvin Li, I Hung Chiang, Richard Strand and Ted Kycia.

According to Melvin Schwartz, BNL Associate Director for High Energy and Nuclear Physics, "The Booster has been a model of large project management, and its proton commissioning has taken place in record time with no unexpected problems. This was accomplished expeditiously under the new DOE emphasis on safety, environmental protection and management control."

AGS Department Chairman Derek Lowenstein said that the Booster will be used next year during normal operations, as part of the next research stage for the long-running AGS, which began accelerating protons in 1960, to then unprecedented energies of 33 billion electron volts (GeV). The proton commissioning of the Booster will allow the AGS to run a greater number of experiments, with more beam to explore the next generation of rare kaon (K) decay and neutrino experiments.

The rare K decay experiments are part of ten experiments currently being run at the AGS, which has served 683 users during the operating year that ends next Monday, July 1.

Light Source

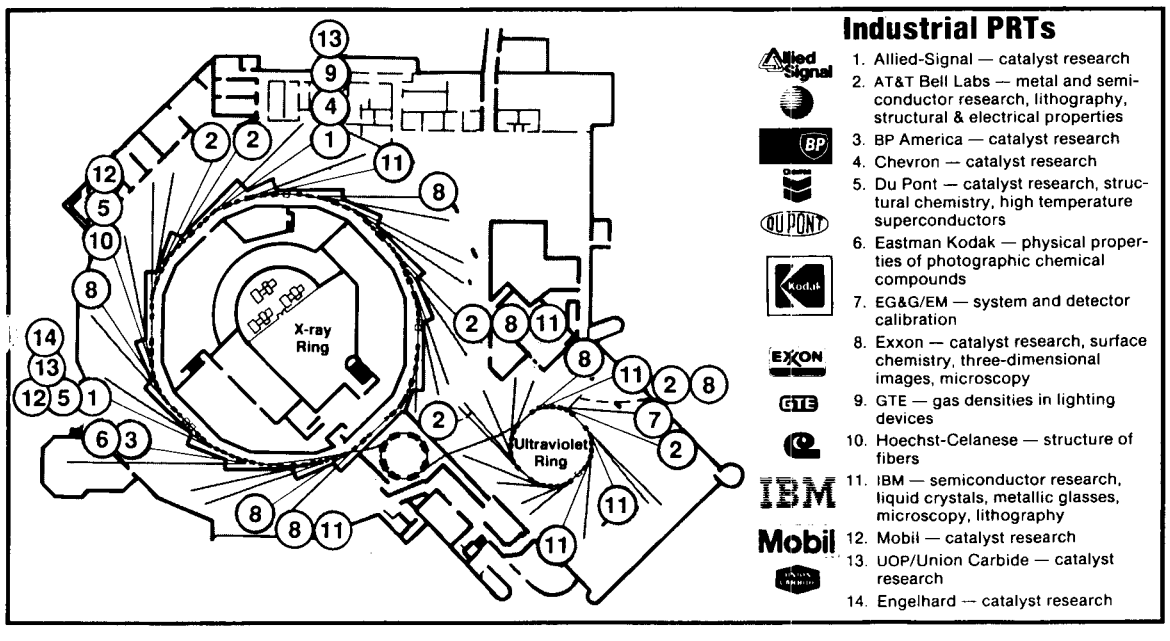
Continuing to shine brightly, the National Synchrotron Light Source (NSLS) is widely used by biologists, chemists, geophysicists, medical and materials scientists, and physicists to run experiments using such techniques as x-ray lithography and coronary angiography.

Commissioned in 1982, the NSLS is the world's largest synchrotron radiation center, serving 2,300 users so far this year. The NSLS accelerates electrons around two electron storage rings called synchrotrons. As the electrons are bent around the rings by magnets, a broad spectrum of radiation is produced.

In the NSLS's vacuum ultraviolet ring (VUV), which operates at an electron energy of 750 MeV, 29 beam lines emanate from 16 ports. Another 56 beam lines occupy 28 of the ports at the larger x-ray ring, which operates at 2.5 GeV.

Those using these rings represent a wide spectrum of research interests. Of all NSLS users to date, 62 percent have been from universities, 19 per-

(continued on page 2)



Fourteen companies are currently members of Participating Research Teams (PRT) involved in both research and administration at beam lines at the National Synchrotron Light Source.

T.D. Lee to Be Haworth Scientist

Nobel laureate T.D. Lee, University Professor and Enrico Fermi Professor of Physics at Columbia University, will arrive on Monday, July 1, for his first visit as a Haworth Distinguished Scientist in the Physics Department.

A highlight of Lee's stay, which will conclude on July 10, will be the physics colloquium that he will deliver on "The s-Channel Theory of High T_c Superconductivity." His talk will take place on Tuesday, July 9, at 3:30 p.m., in the Seminar Room of Physics, Bldg. 510A.

Superconductivity results from the formation of electron pairs that somehow overcome their usual electrostatic repulsion. In high temperature (high T_c) superconductors, the pairs are much smaller than in ordinary superconductors — and can be thought of as a local boson field that can decay into two unbound electrons. It turns out, as Lee will explain, that many of the properties of the new superconductors can be understood in this picture without detailed knowledge of structure of the pair itself.

Lee's interests span an enormous range, and during his ten-day visit, he will share his insights in scientific discussions. To meet with Lee, call Isabel Harrity, Ext. 2524. Lee's next Haworth visit will be in November.

Spending summer at BNL is not a new thing for T.D. Lee: As a summer visitor here in 1956, he worked with C.N. Yang on the theory of parity nonconservation, for which they shared the Nobel prize in 1957.

The Haworth Distinguished Scientist appointments honor the memory of Leland J. Haworth, BNL's second Director. Haworth lecturers spend from one to three weeks per year in residence at Brookhaven, for up to three consecutive years.

AUI Distinguished Lecture

Roots and Results of Nuclear Fear

Spencer Weart

Nuclear energy has fueled weapons, reactors and protests for the past 50 years — and it continues to be a subject of heated controversy, with the public often fearful of it. At the next AUI Distinguished Lecture, to be presented on Monday, July 8, at 4:30 p.m. in Berkner Hall, noted science historian Spencer Weart will discuss the causes and consequences of what he calls "nuclear fear."

Weart is director of the Center for History of Physics at the American Institute of Physics in New York. In a talk entitled "Nuclear Fear: Origins and Consequences," he will draw on a wide variety of materials, from technical articles to works of art, to show that much of what the public believes about nuclear power is not based on fact, but rather, on emotionally charged imagery.

After earning a Ph.D. in physics and astrophysics from the University of Colorado, Boulder, in 1968, Weart turned to the study of history: In 1971, he became a graduate student in the history department at the University of California, Berkeley.

Weart is the author of numerous historical articles and books, including *Nuclear Fear: A History of Images*, published by Harvard University Press in 1988. The New York Times Book Review called the book "a true history of our age — a cutting, indispensible, deeply troubling book."

Weart's talk will be the fourth in a series of five lectures in the AUI Distinguished Lecture Series this year. In 1965, Associated Universities, Inc. started the lecture series, which focuses on topics of general interest to the public presented by experts in a variety of fields.

BNL Machines (cont'd)

cent from industry, 16 percent from laboratories and 3 percent fell in an "other" category.

The large number and variety of NSLS users are evidence to the facility's importance for new research, and plans are in the works to make the future of the Light Source even brighter.

"We are planning the next generation x-ray source — an Ultraviolet Free Electron Laser (UVFEL)," said NSLS Chairman Denis McWhan.

Using low-emittance, high-current beams to power the laser, the UVFEL will produce a very intense source of light for use in pulse-probe research. Its high pulse energies will allow it to have a peak impulse power of 10^8 watts at 1000 angstroms, as compared to the x-ray ring's peak power of 10^{-1} watts at this wavelength.

Accelerator Test Facility

Currently, NSLS researchers are working with the Accelerator Test Facility (ATF) on the physics principles of the UVFEL.

The centerpiece of the Lab's Center for Accelerator Physics, the ATF is a small linear accelerator designed for interLaboratory research into new methods of accelerating particles and producing coherent radiation. It produces one of the brightest electron beams in the world.

At present, said ATF Head Ilan Ben-Zvi, "We are doing work that is extremely valuable for the UVFEL, by testing the radio-frequency (rf) gun, which is the first element in the UVFEL developmental chain."

The rf gun works by using a pulse of light from a neodymium: yttrium-aluminum-garnet (Nd:YAG) laser to stimulate a photocathode, which ejects pulses of electrons with energies up to 4.5 MeV.

A free electron laser experiment, the results from which will be useful in building the UVFEL, will be one of the first on line when the ATF first delivers its bright beam for experimental use by summer's end.

STEM & STEM II

Researchers at BNL's two Scanning Transmission Electron Microscopes, STEM and STEM II, also use electrons — but to explore the microscopic and atomic world. These machines are at the forefront of electron microscope technology.

BNL's instruments have a resolution of 2.5 angstroms and can image single heavy ions such as uranium. Over 50 experiments are currently being run using the two machines.

In one experiment, STEM is being used to identify immunological molecular sites with antibodies that have been labeled with gold clusters, each consisting of 11 atoms of gold-199. This allows biologists to view structures as small as five billionths of a meter.

STEM II, which became operational last year, is aiding in the mapping of ribosomes, substances that synthesize protein in living cells.

A third electron microscope, STEM III, is to become operational in about eight months. Its unique feature of working at a super-cold temperature of near 4 kelvins will help to preserve biological specimens against damage caused by the microscope's electron beam.

Medical Reactor and PET

Researchers at BNL's Medical Reactor are also using particles to understand biological processes. This reactor, the first to be constructed specifically for medical research, was commissioned in 1959. It produces a maximum neutron flux of about 20 trillion neutrons per square centimeter per second.

One of the reactor's four faces is equipped for the photon irradiation of large objects, while the holes that penetrate another face permit neutron irradiation of samples, activation analysis and production of short-lived radioisotopes. From the remaining two ports, beams of neutrons travel to treatment rooms, for carefully controlled medical studies.

Current projects at the Medical Reactor include work on boron neutron capture therapy of malignant tumors.

Similarly, researchers have been using Brookhaven's PET to look at functioning processes of the brain since 1981. PET is an acronym for the technique the machine makes possible: positron emission tomography.

The technique measures the concentration of a compound labeled with a positron-emitting radionuclide that has accumulated in a specific area of the body. Through this process, rates of glucose metabolism and other biochemical processes in the brain and other organs can be measured.

Current research at the PET facility includes studies on schizophrenia, Parkinson's disease, alcohol and cocaine addiction, and Alzheimer's disease.

Tandem Van de Graaff

Although biological research is not its primary function, the Tandem Van de Graaff accelerator is currently aiding scientists in the study of cell mutations caused by heavy ions.

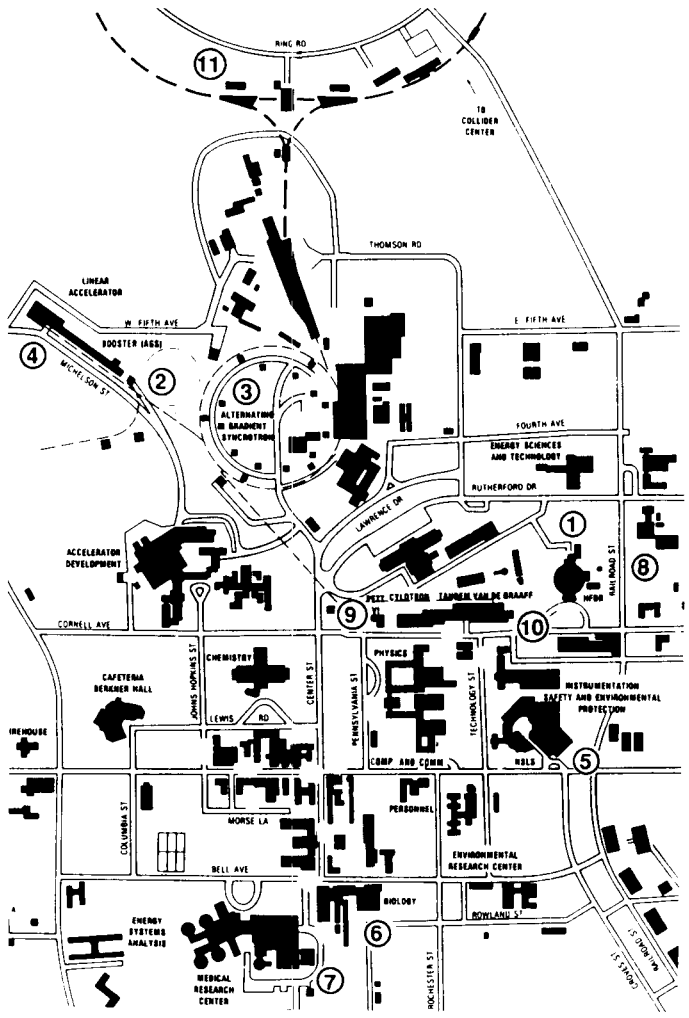
The Tandem, built in 1970, was for many years the world's largest electrostatic accelerator facility. Its two 24-meter long, high-pressure generators can be used independently or linked together to accelerate atoms as heavy as gold.

For years, researchers used the Tandem to study nuclear reaction mechanisms and the structure of compound nuclei. In 1984, the Tandem's mission changed with the building of a 700-meter-long transport tunnel to deliver the Tandem's heavy ions to the AGS.

The Tandem also supports its own group of users, who employ its heavy ions for studies ranging from cell mutations to the effects of cosmic rays on computer chips.

In the next stage of BNL's evolution, the Tandem's heavy ions will be linked by tunnel to the newly operational Booster. The Booster will accelerate the ions to even greater energies for use in the AGS.

By 1997, these heavy ions will be collided in a completed RHIC, as BNL researchers attempt to produce the gluon-plasma thought to have been formed in the moments that the universe was created. — Erik Larson



All around site, BNL's machines are up and humming: 1. High Flux Beam Reactor; 2. Booster; 3. Alternating Gradient Synchrotron; 4. Linac; 5. National Synchrotron Light Source; 6. STEM and STEM II; 7. Medical Research Reactor; 8. Accelerator Test Facility; 9. PET; and 10. Tandem Van de Graaff. Coming soon: 11. Relativistic Heavy Ion Collider.

Mortgage Rep At TFCU Table

Teacher's Federal Credit Union (TFCU) hosts an information table during the week, from 11 a.m. to 1 p.m. at the Cafeteria. On Wednesday, July 10, Nancy Orlando, TFCU's Vice President-Credit, will be at the table to discuss the credit union's new home mortgage program. As always, new account packages and loan applications will also be available.

Arrivals & Departures

Arrivals

Barbara A. Coughlin.....AUI
Dennis E. Joyce.....Staff. Serv.
Roy J. LoVerde.....Accel. Dev.
Terrence T. Mroczkowski.....AGS
Emil J. Varrichio.....AGS

Departures

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

Arup K. Bhattacharya.....Inst.
Richard F. Garrett.....Medical
Grace Searles.....Nuc. Energy

Note to Employees:

Attendance at lectures, meetings and other special progams held during normal working hours is subject to supervisory concurrence.

Tai Chi Club

An ancient Chinese martial art, Tai Chi Ch'uan has been called meditation in motion. And, as of June 20, it became the basis of the newest BERA activity — the Tai Chi Club.

As practiced by club members, the Tai Chi discipline emphasizes relaxation, balance, breath control, correct posture, mental concentration and emotional calmness. Plus it's great exercise.

The club's instructors — Dejun Xue, Ext. 2846, and Chuan-Zhey Yang, Ext. 5790 — teach the Yang long-form style of Tai Chi, with 88 postures and three parts.

Classes are held on Monday and Wednesday, 12:15-12:45 p.m. on the grassy knoll near the tennis courts. Parts 1 and 2 are taught primarily on Monday; part 3 instruction takes place on Wednesday, along with a review of parts 1 and 2.

The Tai Chi Club's present ten-week session of classes ends on July 1, but a second session will begin on July 3. The fee for ten weeks of classes is $30, which is payable at registration preceding the first class.

For more information, call either instructor or Jerry Tanguay, Tai Chi Club secretary, Ext. 2198.

Scoop of the Week

Week two of the Scoop of the Week contest yields a scoop to Madeline Windsor for informing the Bulletin about the mystery of the old book.

During the summer, if you have a hot tip that you wish to trade for a cold scoop of ice cream or frozen yogurt, rush your news and feature ideas to the Brookhaven Bulletin, Bldg. 134, or call Ext. 5053, to enter the Scoop of the Week Contest. If you scoop the Bulletin's informed sources and a story based on your idea is published, you'll win an official certificate for a scoop of your favorite cold dessert, compliments of Service America Corporation and redeemable at the Cafeteria or ice cream truck.

Holiday Notes

Brookhaven Bulletin

Because the Laboratory will be closed for the Independence Day holiday on Thursday and Friday, July 4 & 5, there will be no Bulletin next week. The classified ad deadline for the issue of Friday, July 12, is 4:30 p.m., on Wednesday, July 3.

Food Services

The Cafeteria will operate only the snack-bar service on Thursday and Friday, July 4 & 5, 9 a.m. to 2 p.m.

The Brookhaven Center will close Thursday, July 4, and reopen Friday, July 5, from 5 p.m. to 9 p.m.

The vended-food service in Bldg. 912 will be in operation throughout the holiday.

BROOKHAVEN BULLETIN

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The Mystery of the Old Book

Almost 100 years after Hattie Woodhull wrote her name inside the cover of her copy of *Bible Reading in the Home Circle*, the well-worn book has been returned to the circle of her surviving family members — thanks to the efforts of several people in the Technical Information Division (TID).

As recounted by TID's Madeline Windsor, the book "came in an interoffice envelope in April, without any sender's name, as if someone had found it while cleaning out an office and decided it belonged in the library."

But when Harriet Martin opened the envelope, she quickly realized the volume was not from the Research Library's shelves. She put it aside until she could check it out, and its age piqued the curiosity of passer-by Noreen O'Donnell, then Betsy Schwartz, who took it to her office.

That's where Windsor first saw the book. In looking through it, she found the handwritten inscription: "Hattie Woodhull, Sayville, N.Y., 1893." Also handwritten on several blank pages were poems signed by Hattie Woodhull, while a number of pressed flowers and photographs lay tucked between the book's pages.

"I am very sentimental," said Windsor, "so I just couldn't stand the thought of its not going back to the family." So, Windsor checked the phone book to see if there were any Woodhulls in the Sayville area.

"The closest Woodhull to Sayville was Richard Woodhull in Patchogue," said Windsor. "When I got him, I asked if he were any relation to Hattie Woodhull, and he said, 'Yes, she was my grandmother.' He and his wife came that afternoon to pick up the book."

Roger Stoutenburgh

Madeline Windsor (left) goes through Hattie Woodhull's almost 100-year-old copy of *Bible Reading in the Home Circle* with Hattie's grandson Richard Woodhull and his wife Virginia when they came to the Technical Information Division to pick up the family heirloom.

While Windsor has solved the mystery of the book's owner, the riddle remains: How did it get to BNL?

The only member of the Woodhull family who had any association with the Lab site was Herbert Woodhull, Hattie's son and Richard's father, who worked at Camp Upton during World War II. Did he bring the book here and leave it in an old army building? Did someone now working in that old building find it and send it to TID?

If you can help solve this puzzle, please contact the Bulletin.

Atlantic City Trip

The next BERA-sponsored one-day trip to Atlantic City will be to Trump Castle Hotel & Casino on the Marina, on Saturday, July 20. The initial cost will be $20, but the hotel/casino will give a $8 coin return, $4 towards food and a $5 deferred return bus voucher.

The bus will leave the Brookhaven Center promptly at 9 a.m., with an extra pickup at LIE Exit 63 if necessary. It will return about 11:45 p.m.

Tickets are now on sale at the BERA Sales Office in Berkner Hall, weekdays from 9 a.m. to 2 p.m. For information, call Louisa Barone, Ext. 3347, Rosalie Piccione, Ext. 3160, or Kay Dellimore, Ext. 2873.

Mountain Club

There will be a Mountain Club trip to Woodland Valley campground on the July 12th weekend. Near Phoenicia in the Catskills, Woodland Valley has hiking trails, bike trails and river activities nearby. To participate, call Tom Clifford, Ext. 7115.

Also, the Mountain Club will meet on Tuesday, July 2, at noon in the Recreation Field gazebo. Please bring ideas for summer and fall activities. Summer visitors are welcome.

Hospitality News

Frank Cipriani, an accent improvement instructor from the State University of New York at Stony Brook, will be the guest speaker at the next Hospitality Committee get-together on Tuesday, July 2, from 9:30 to 11:30 a.m., in the lounge of the Recreation Building in the on-site apartment area. He will discuss why accents are so hard to lose after a certain age, and how to improve foreign pronunciation.

Please join us. Spouses of Laboratory employees and guests are welcome to come and bring the children. Refreshments will be served, and free baby-sitting will be provided.

Summer Schedule At Swimming Pool

The summer schedule at the pool will begin Monday, July 1. The pool will be closed all day Thursday and Friday, July 4 & 5, and summer hours will resume on Monday, July 8. The hours will be as follows:

Monday through Friday

11 a.m.-1:30 p.m.	employees only
1:30 p.m.-2 p.m.	reserved for speed swimming and training
2 p.m.-3:15 p.m.	children's lessons
3:45 p.m.-9 p.m.	employees, families and guests*

Saturday and Sunday

1 p.m.-5:30 p.m.	employees, families and guests*

Daily Admissions

Employee or family member	$2.00
Guest	$3.00

Season Tickets (fees not prorated)

Individual membership	$40.00
Family membership	$50.00

**One guest per employee is permitted. Advance arrangements for additional guests, up to a maximum of five at any one time, must be made at the Recreation Office, Personnel Division, Bldg. 185.*

Cafeteria Menu

Monday, July 1	
Soup: Split pea	.75/.95
Entree: Prime rib of beef w/1 veg.	3.65
Entree: Chicken cutlet Parmesan hero w/1 veg.	3.10
Fitness: 3-bean chili	3.10
Carvery: Hot pastrami sandwich	2.85
Grill: 3-cheese melt w/fries	2.85
SPICE: Canada Day - seafood croissant	
Tuesday, July 2	
Soup: Lentil	.75/.95
Entree: Stuffed cabbage w/1 veg.	3.10
Entree: Chef's choice	3.10
Fitness: Chicken classica w/1 veg.	3.10
Carvery: Hot roast beef sandwich	2.85
Grill: Grilled Reuben, cole slaw & pickle	2.85
SPICE: Mocha madness — a new hot beverage	
Wednesday, July 3	
Soup: Beef vegetable	.75/.95
Entree: Fried chicken w/1 veg.	3.10
Entree: Fillet of fish sandwich w/1 veg.	3.10
Fitness: Vegetable lasagna w/1 veg.	3.10
Carvery: Hot Black Forest sandwich	2.85
Grill: Shrimp basket w/fries & pickle	2.85
Thursday & Friday, July 4 & 5	
Snack bar service — 9 a.m. to 2 p.m.	

Change in Trains

Due to recently announced schedule changes by the Long Island Rail Road, the Transportation Office's shuttle service will be on the following schedule, effective Monday, July 1:

- **Morning — The shuttle will meet the 9:57 a.m. arrival in Patchogue, which departs from Pennsylvania Station in New York City weekdays at 8:26 a.m.**
- **Afternoon — The shuttle will leave from the Transportation Office, Bldg. 179B, at 3:45 p.m., to meet the train that departs from Mastic-Shirley at 4:17 p.m. and arrives at Penn Station at 6:19 p.m.**

For more information, call Ext. 2535.

BWIS Invites All To Cocktail Party

The 12th annual Cocktail Party hosted by Brookhaven Women in Science will be held on the patio of the Brookhaven Center on Tuesday, July 16, from 5:15 to 7 p.m. In the event of rain, the party will be held in the North Room of the Center.

Hot and cold hors d'oeuvres will be served. The cost is $4 per person; $2 for summer students with I.D. There will also be a cash bar. Everyone is invited. RSVP by July 9 to Harriet Castro, Ext. 5152, Bldg. 134D, or Dorry Tooker, Ext. 2078, Bldg. 902C.

Film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Weight Watchers To Continue

Summer arrived last Friday, but, if you're not ready for bathing suit season, join or continue with Weight Watchers at work.

Through a series of classes at BNL open to employees and their dependents, Weight Watchers is again offering its Personal Choice Program, a balanced, healthy diet that includes a variety of nutritious, satisfying foods at three different calorie levels.

Classes will be held on Mondays from noon to 1 p.m., in the Brookhaven Center, July 15 through September 16. Registration will take place on July 8, at which time payment is due.

This season, Weight Watchers is offering ten classes for the price of eight. The summer fee is $80, but, since the Lab pays $10 per participant, the actual cost for employees is $70.

For more information, contact Health Promotion Specialist Mary Wood, Ext. 5923 or 4567.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication. (continued on page 4)

Classified Ads (cont'd)

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

MK 108SC. TOOL & INSTRUMENT MAKER (3 positions) - Central Shops Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

NS 6109. OPERATIONS ENGINEERING SPECIALIST POSITION - Requires BS in electrical technology, physics or electrical engineering. Background in computer controls, high-energy pulsed power supplies and digital electronics desirable. Primary responsibilities will be as part of a rotating shift team that operates and troubleshoots the AGS accelerator complex. Alternating Gradient Synchrotron Department.

NS 5770. ENGINEERING POSITION - Requires MSEE and a minimum of five years' experience in the design of analog integrated circuits. Proven experience in the simulation, layout and extraction of IC designs using an integrated CAD system necessary. Responsibilities will include the design and testing of analog/digital ICs, as well as the operation, programming and maintenance of the Cadence CAD system. Instrumentation Division.

Motor Vehicles & Supplies

87 ISUZU TROOPER 4x4 - rack, running board. 399-4897 after 6 p.m.

86 ISUZU PICKUP - 4wd, 77k mi., 38k mi. on the eng., LS pkg., excel. cond., $4,800. Lloyd, Ext. 3163 or 286-1024 after 6 p.m.

86 MITSUBISHI MIRAGE - 3-dr. h/b, a/t, 91k mi., excel. cond., asking $1,700. 689-8605.

85 TRANS AM - T-top, loaded, new tires & brakes, maroon, tinted windows, immac. cond., reliable, $6,500 neg. Sharon, Ext. 2689 or 698-2798.

83 PLYMOUTH - new head gasket, carb. & pan gasket, 64k mi., am/fm cass., new tires, good cond., $900 neg. DiLello, Ext. 7238.

82 OLDS CUTLASS - V-6, a/t, ac, p/s, p/b, p/w, am/fm cass., 89k mi., runs well, good cond., $1,500. Chris, Ext. 4234.

80 YAMAHA XS-650 SPECIAL - mint cond., well maintained, extras, must see, $1,000 firm. Greg, 399-1258.

69 CAMARO RALLY SPORT - classic car, $3,400. Jim, Ext. 3372 or 821-0250.

89 MITSUBISHI PRECIS - 30k mi., 5-dr., a/t, am/fm cass., sunroof, $3,900. Sheila, Ext. 3166.

87 FIREBIRD - white, V-6, a/t, T-top, 37k mi., v.g. cond., $7,700. Ext. 5768.

87 YUGO - 2-dr., 4-spd., am/fm stereo cass., 28k mi., runs well, excel. cond. Joey, Ext. 2950 or 758-2938.

87 DODGE DAYTONA - red, a/t, p/s, p/b, ac, am/fm, moonroof, 43k mi., mint cond., asking $5,000. 981-9351 eves.

86 DODGE VAN - p/s, p/b, V-8, 35 gal. gas tank, new brakes, clean in & out, $4,500. 369-0432.

86 CHEVROLET CHEVETTE - red, excel. cond. in & out, ac, must sell soon, asking $3,000 neg. 286-9426.

86 T-BIRD - 2-dr., V-6, loaded, new tires, digital display, excel. cond., must see, $3,500. Ext. 4386 or 399-0253.

85 DODGE RAMCHARGER 4x4 - loaded, running boards, am/fm cass., alarm, excel. cond., must see, $7,000. Chris, Ext. 2326.

84 CAMARO BERLINETTA - 6-cyl., a/t, ac, p/b, p/s, am/fm, Eagle ST tires, 70k mi., $2,800. Ed Carley, Ext. 3499 or 821-0063 eves.

83 HONDA V45 MAGNA - 750cc, low mileage, many extras, mint cond., $1,800 firm. John White, Ext. 2021.

83 POLARIS SNOWMOBILE - 340cc, 2-cyl., twin carbs, very fast, $349.99 neg. Joel, Ext. 5988 or 744-1628.

83 PONTIAC GRAND PRIX - 6-cyl., a/t, runs well, looks good, $2,200. 281-0268.

82 TOYOTA COROLLA SR-5 - 5-spd. h/b, am/fm, ac, new brakes & clutch, v.g. cond., asking $800. Sam, 473-5673 eves.

82 YAMAHA XS400HS STREET MOTORCYCLE - 6k mi., many accessories, classy, $800 neg. 878-2702 after 6:30 p.m.

81 PONTIAC T-1000 - needs clutch or timing belt, not sure, 80k mi., $200 neg. Bob, Ext. 7238.

81 PLYMOUTH RELIANT - 80k mi., white/red int., a/t, new brakes, struts, exhaust, timing belt, more, tight car, asking $1,500. Ext. 7014 or 281-8274.

81 PLYMOUTH CHAMP - 1.6l, 4-spd., recent paint, clutch, tires, high mileage, well maintained. Bruce, Ext. 4179.

79 CHEVY NOVA - 6-cyl., good station car, mech. OK, body fair, asking $450. Bruce, Ext. 7609 or 924-8680.

79 CHEVY PICKUP - black beauty, moving, must sell, mint cond., $1,000 neg. Steve, Ext. 2496.

79 MONTE CARLO LANDAU - V-8, ac, 95k mi., dependable transportation, asking $1,500. 363-6940 after 5 p.m.

78 TOYOTA CELICA - 5-spd., ac, am/fm cass., 130k mi., runs well, best offer. Nelson, Ext. 3861.

78 FIREBIRD FORMULA 305 - ac, p/s, p/b, clean in & out, $2,500 neg. AJ, Ext. 3277.

78 CHEVY IMPALA - s/w, new brakes & tires, runs well, $900 neg. 363-7032.

76 CAMPER - 19', Puritan, mech. fine, needs int. work, make an offer. John, Ext. 7623.

74 CHEVROLET CAMARO - 350 cu. in., 45k mi. on engine, a/t, p/s, p/b, dk. blue, runs well, no rust, asking $1,500. Peter, Ext. 4004 or 286-0934.

71 DATSUN 240Z - new tires, brakes, etc., excel. cond., must see. Perlman, 472-1174.

71 JAGUAR XJ6 - restorable or for parts, best offer. Ext. 2021.

70 & 69 VW KARMAN GHIAS - complete w/engines, good for restoration or parts, good glass, you pick up, $275. Henry, Ext. 5110.

70 FORD TORINO GT - a/t, V-8, new int., brakes, suspension, trans., extras, $850. 929-8105.

66 PONTIAC GTO - convertible, 4-spd., 389 rebuilt 8/90, red w/black int. & top, asking $4,950. 286-2892.

60 VOLKSWAGEN BUG - good cond., $2,000. Ext. 7518 or 878-8847.

31 CHRYSLER MODEL B - 2-seater, rumble seat, all orig., excel. cond., must see, asking $7,500. Ext. 3160 or 289-5704 after 5 p.m.

WHEELS - 2, 4-hole Toyota type, $10 pr. Bob, Ext. 5010.

RIMS - one w/D78-14 tire, 4-holes, $7; one w/8.25-14 tire, 5-holes. Dolores, Ext. 2907.

TIRES - Mohank, P195-75D14, new Roncho RS5000 shocks, Grant steering wheel, Crane dbl. springs, small block Ford. Wayne, Ext. 3084.

Boats & Marine Supplies

25' SE/SK - 1961, wooden, ib., good for parts, best offer. Karl, 878-9299 after 5 p.m.

23' CHRIS CRAFT LANCER - rebuilt ib., tunnel drive, dual-axle Shoreline trailer, good cond., $4,000. Phil, 286-3679.

23' O'DAY - 1980, keel/cb w/7½-h.p. ob., 4 sails, Spinnaker, race-rigged aft, extras, dinghy, VHF, w/slip, sleeps 4, $6,995. Ballard, Ext. 4206/7060.

22' GLASTRON AVENTURA 225 - 1981, 185-h.p. Mercruiser i/o, FWC, low hrs., VHF, DF, swim platform, fully equipped, $5,495. Ed, Ext. 7943.

20' CLAMBOAT - fiberglass, cabin, self-bailing, very seaworthy, excel. cond., $750. 563-6680.

19' BAYLINER BOWRIDER - 1987, 125-h.p. Force, full canvas, low hrs., excel. cond., $6,000.. Vinny, Ext. 2642.

18' HOBIE CAT - 1990, w/'90 trailer, used 4 times, orig. $8,500, now $4,500 firm. 473-1456.

18' GRADY - white, 70-h.p. Johnson, chart recorder, VHF, CB, radios, Tandem trailer, 2 anchors, good fishing boat. Steve, Ext. 4498.

17' BOAT - w/ 60-h.p. Evin., Gator tilt trailer, p/winch, v.g. cond., ask. $1,800. Bill, Ext. 3859 or 286-1712.

16' BOWRIDER - 65-h.p. Johnson, tilt trailer, p/winch, $1,800. Jim, Ext. 3372 or 821-0250.

14' HOBIE CAT CATAMARAN - jib, sails, excel. cond., $1,100. 878-1178.

14' HOBIE CATAMARAN - roller reefing jib, trailer, $1,400 or best offer; kayak, Klepper double, f/g, $500. Ext. 7657 or 298-9560.

14' DUCK BOAT - & trailer, $200. Roger, Ext. 7518 or 878-8847.

13' TRI HULL - f/g, lake boat w/trailer, Minn Kota 36-lb. thrust elect. motor w/ battery, asking $1,000. Joey, Ext. 2950 or 758-2938.

8' NORLANTIC - inflatable, used one season, like new cond., no engine, $700. DJ, Ext. 7643.

CHART RECORDER - Sitex, extra paper, $100. Steve, Ext. 4498.

Furnishings & Appliances

AIR CONDITIONER - Sears Cold Spot, window unit, 2-speed, no side pieces, 13"N x 16"D x 18"W, good cond., $25. 475-1826.

AIR CONDITIONER - 8,000 Btu, window unit, used 8 hrs., replaced by central air, orig. $540, asking $325. E. Symonds, Ext. 7126.

BASE CABINET - w/sink & faucet, excel. cond.; GE refrig., 14 cu. ft., $40. Tony, 698-9274.

SINGLE BED - Colonial, pine headboard, like new mattress, boxspring, $25/all. 589-4363 after 6 p.m.

COUCH - & matching chair, light green, $50. Gail Harfe, 585-8381.

DINING ROOM - new, custom, marble-like table top w/brass, 6 chairs, 2 leaves, pad, large mirrored credenza, orig. $9,000, $3,500 neg. Lisa, 757-5962.

FREEZER - Admiral, upright, v.g. cond., $100. Steve, Ext. 4498.

FREEZER - 8.3 cu. ft., 34"x34", asking $100. 929-8912.

JUICE EXTRACTOR - Sunbeam, brand-new, used twice, orig. $50, asking $25. 758-4770 after 5 p.m.

LIVING ROOM - Colonial, sofa & 2 chairs, $350; lamps; credenza; Panasonic stereo. Brehm, 744-8567.

RECLINER - good cond., $50 or best offer; sofa bed, good cond., $125. O. Booker, Ext. 3082 or 727-5912.

REFRIGERATOR - GE, 24 cu. ft., side-by-side, gold, excel. cond., asking $150. Chris, Ext. 2022 or 395-6112.

SEWING MACHINE - about 20 yrs. old, needs work, $25. Les, Ext. 2920.

SOFA - rust/brown tweed, w/arm covers, new cushions, good cond., you pick up. Ext. 4538 before noon, or 924-2012, leave message.

SOFA - loveseat, chair, ottoman, cocoa, flex. steel frame, oak tables, 3 end tables, $1,800/all. 821-3762.

SOFA & CHAIR - multicolor plaid, excel. cond., easy to match, $125; dresser w/mirror, maple, $50. Ext. 5097 or 744-9022 eves.

SPINDLEBACK CHAIRS - antique, 6, new caning; upright freezer; leaf shredder, w/cart, heavy-duty. 363-7032.

STORM DOOR - 30", white, new, $75; gas L.P. heater, 250k Btu, free standing, $80. Tony, 269-9510.

WASHER & DRYER - Kenmore, heavy-duty, large capacity, 10 mo. old, $600/pair. Pete, 821-5470.

Tools, House & Garden

LAWN MOWER - Snapper, 2 yr. old, excel. cond., needs bag, $125; Snapper, 21" cut, 3½ h.p., $100. Dan, Ext. 4987 or 698-7322.

PICTURE WINDOW - 10'x4', w/storm & screens, $25; alum. comb. storm door, 35"x82", $35; 2 alum. storm windows, 31"x58", $5/ea. 878-6637.

POOL COVER - & reeler, solar, for pool up to 20'x40', $100; Culligan water softener, $200. Ext. 7130 or 929-8323.

TABLE SAW - Shopsmith Mark V, drill press, lathe, disc sander, excel. cond., great bargain, many other access. Tom, Ext. 5350.

WINDOW - vinyl, double-hung, full screen, 32"x37½". Tony, 698-9274.

Sports, Hobbies & Pets

BICYCLE - man's, 3-spd., used 5 times, $60. 567-7096 eves.

DOG CHAIN - tie out/runner, new, 20', $7 or 15', $4; dog collar, 20", new, $6. Dolores, Ext. 2907.

ELECTRONIC FLASH - Vivitar model 283, excel. cond., $20; Rokinon telephoto zoom lens, 75-240, f4.5, Nikon mount, excel. cond., $60. 286-1253.

EXERCISER - Sears 3 in 1, rower, skier, climber, orig. $350, asking $175. Penny, 878-9541.

WEIGHT-LIFTING SET - w/bench & extra access., excel. cond., best offer. 744-8386.

CAMERA - Canon T-70, 50mm/1.4, 28-55mm & 80-200/4mm zooms, 277T flash, 2X extender, case, $575. Witkover, Ext. 4607 or 368-0452.

SKIS & POLES - 2 pairs, $25/ea.; ski boots, size 10-12, $10; child's bicycle, $10. Bob, 929-6748 after 5 p.m.

Audio, Video & Computers

AMPLIFIER - Kenwood KM105 w/Chan KC105, preamp w/equalizer, KT45 synth. tuner, excel. cond., $190/all. Dominic, Ext. 5264.

CLOCK RADIOS - GE, Lloyd, $5/ea.; assorted phones, $5/ea.; all in good cond. Ext. 5097 or 744-9022 eves.

COMPUTER - Commodore 64 w/Star NX10 printer, 14" color mon., modem 300, 1541-II, floppy, more. $600 neg. Ext. 2877 or 289-8428.

COMPUTER - Apple PC, w/NEC printer, 2 disk drives, perfect cond., ideal as word processor, $500. Andy, 751-0453.

COMPUTER - IBM PC, two 5¼ floppy drives, monitor, keyboard, math coprocessor, excel. cond., $300 neg. Bob, Ext. 5010.

COMPUTER - Commodore 64, color monitor, disk drive, printer, keyboard, $250. Ext. 3848.

RECORD PLAYER - Emerson, plays 78, 45 & 33 rpm records. Les, Ext. 2920.

SPEAKERS - Polk 10's studio monitors, $400/pair; Thorns-140 turntable w/Grado Sig 8 cartridge, make offer. Chris, Ext. 2326.

MIXING SOUND BOARD - Teac model 2A, 6 in, 4 out, tone controls, $20 neg. Jim, Ext. 4150.

Miscellaneous

CAR SEAT - Century 2000, child's, almost new, $25. Paul, 361-6835.

ICE CREAM MAKER - 1923, $50; patio umbrella, $20; white end table, $10; water skis, $20; china plates, $1. Kathy, 744-2203.

SHOES - women's, sizes 8½-9, varied styles, colors & widths, all excel. cond., $5-$10/pair. Ext. 4538 or 924-2012, leave message.

SUITCASES - American Tourister, off white, 20"x7"x19" & 20"x6½"x15", hard shell, 16"x 7½"x15" soft carry-on, $25/all. Marsha, Ext. 5053.

Free

COCKAPOO - black, male, great w/children. 286-4969.

DOBERMAN MIX - rescued, 2 yr. old, neutered, shots, loveable, needs home. Ext. 7192.

KITTEN - 3 mo., trained, affectionate, answers to "Furball". Biays, Ext. 2946.

RABBIT - pure, white, female, 7 months old. Jim, Ext. 4150.

Yard Sale

BELLPORT - 16 2nd St., furniture, appl., tools, etc. Sat. & Sun., 6/29-30, 9 a.m.-3 p.m.

RIVERHEAD - 7/6, Sat., 9-5, Sebastian Dr., north of Sound Ave., west of Roanoke Ave., multifamily. 727-7227.

ROCKY POINT - 19 Brookhaven Dr., 6/29-30, 10 a.m.-4 p.m., household, children's clothing, etc.

WADING RIVER - Randall Rd., & 25A, rattan shelf units, wicker chair, wood desk, baby clothes, more, 7/6, 9 a.m.-4 p.m. Gary, Ext. 4532.

Car Pools

HOLBROOK - Biology summer student looking for car pool. Brian Harfe, Ext. 3350 or 585-8381.

Lost & Found

FOUND - make-up case in Food Drive container. C. Kerr, Ext. 7100.

FOUND - right Birkenstock sandal, size 38, 3-strap, burgundy-colored, on Center St. Ext. 2345.

FOUND - eyeglasses in black case from Cohen's Optical, near Berkner Hall. P. Thorp, Ext. 2238.

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

BELLPORT VILLAGE - summer sublet, charming 1-bdrm. cottage, fully furn., quiet, secluded, conv. to Fire Island, shopping, $250/week, avail., 7/20-8/18. Ext. 3856 or 286-6420.

CORAM - own room in a spacious house, $350/single or $550/huge master bdrm. w/priv. bath. Ext. 7897 or 331-0807.

EAST PATCHOGUE - 3-4 bdrm., furn., gas heat, beautiful garden, woods, fenced, 1 acre, walk to Bellport Village, 20 min. to Lab, avail. 9/1 for 1 yr., $850/mo. Vera, 286-3903.

MATTITUCK - 2-bdrm. ranch, fam. rm., l/r, d/r, deck, full bsmt., w/d, $875/mo. Dave, Ext. 5460.

MEDFORD - large 4-rm. apt., master bdrm., full bath, l/r, d/r, eik, cabinets, closets, storage galore w/w, deck, pvt. ent., near LIE, nonsmoker, no pets, $700/mo. all. Walter, 289-3586.

MILLER PLACE - 4 bdrm., eik, d/r, l/r, cath. ceilings, dw, w/d, 1-car gar., yard & patio on 1.2 acres, $900/mo. + util. Peter, 821-2940.

MONTAUK - 3 bdrm., 2 baths, fp, deck, cable, laundry, fin. bsmt., furn., walk to ocean, 2 week min. Jim, Ext. 4150 or Ruth, 563-8374.

PATCHOGUE - small house & gar., screened porch, fenced yard, for 1 or 2 people; also small house & gar. w/front porch, $650/mo. + sec. 475-4199.

PORT JEFFERSON - 4-bdrm. ranch, eik, l/r, d/r, fam. rm. w/fp, all appl., fin. bsmt., 2-car gar., avail. Sept., no pets, $1,100/mo. Ext. 2920 or 473-5092 after 5 p.m.

PORT JEFFERSON STATION - 3-bdrm. ranch, l/r, d/r, eik, bath, sunroom, all appl., treed yard, avail. 7/15, $850/mo. + util. 698-5298.

WADING RIVER - cozy 1-bdrm. apt., eik, l/r, full bath, nonsmoker, no pets, $500/mo. + sec. & refs., avail. 7/1. Janet, Ext. 2345 or 929-3910.

WADING RIVER - 1-bdrm. apt., eik, large l/r, cable, parking, all new, walk to priv. beach, no pets, $650/mo. + sec. & ref. avail. 7/1. 929-4342 after 5 p.m.

ORLANDO, FL - 1-bdrm. eff. suite in The Villa at Resort World, sleeps 4, 5 min. bus to Disney World, week of 7/26-8/2, $450/wk. Ext. 2683 or 751-2469.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, pool, beach, golf nearby, May-Sept., $450/wk. Guy, Ext. 3147 or 689-5378.

For Sale

CORAM - Strathmore East, 4-bdrm. ranch, 2 baths, cathedral l/r, 2-car gar., gas heat, fenced corner lot, $120,000. Ext. 3791 or 928-7154.

CORAM - N Rt. 83, 4-bdrm. contemp. Colonial, l/r, d/r, fam. rm., fp, fin. bsmt. w/nightclub, 2-car gar., ⅓ acre, $139,900. Ext. 7897 or 331-0807.

EAST MARION - beautiful 1 acre bldg. lot, adjacent to Greenbelt, walk to Sound. 325-0447.

HAMPTON BAYS - 3-bdrm. mother/daughter ranch, deck, ½ acre, wooded, fp, oak floors, igp, close to ocean, schools, town, $165,000. Ann or Charles, 728-1931.

HOLTSVILLE - 2-bdrm. ranch, fp, new windows, ag pool, low taxes, 15 min. to BNL, near shopping, fenced yard, $119,000, neg. Peter or Kelly, 289-1732 after 6 p.m.

MEDFORD - 3-bdrm. center hall Col., l/r, d/r, eik, den, 1½ baths, gar., 0.4 acre, $135,000. 286-1571.

MIDDLE ISLAND - Coventry Manor, 3-bdrm. townhouse, 2 baths, kit., l/r, d/r, laundry, cac, 5 appl., enc. patio, carpet, more, ask. $102,000. Rosalie, Ext. 3160 or 289-5704 after 5 p.m.

RIDGE - Leisure Knoll 1-bdrm. duplex, ac, all appl., taxes, $1,800, close to clubhouse, pool, etc., immed. occup., over 55 only, $75,000. Ted, Ext. 589 or 475-8581 eves./wknds.

RIVERHEAD - 2 bdrm., l/r, d/r, custom kit., den, full bsmt., gar., deck, deeded lake rights, all appl., very private, $115,000. 369-0432.

ROCKY POINT - 3-bdrm. Old Field ranch, den, energy efficient, newly painted, fenced, workshop, l/r w/Stainmaster carpet, award-winning school district. 821-0758.

SHIRLEY - 3-bdrm. ranch, designer bath w/skylight, full bsmt. w/laundry rm., oak floors, d/r, l/r, security lights, fenced. Ext. 3531 or 281-7578.

SHIRLEY - 3-bdrm. ranch, 1 bath, eik, l/r, skylight, ⅓ fenced yard, near water, city water, ask. $105,000. A.J. Ext. 3277.

SHOREHAM - 3-bdrm. ranch, SWR SD, low taxes, large eik, d/r-l/r, den, 2 baths, atrium, lg. store rm., cac, gas heat, all appl., $145,000. Ext. 2833 or 744-7172.

SHOREHAM - N25A, SWR SD, low taxes, 4 bdrm., 2½ baths, 2-car gar., energy eff., encl. porch, fenced yard, close to schools, shopping, 10-min. to Lab., $165,000. Rich, 744-0960.

SHOREHAM - 3-bdrm. brick Cape, eik, den, playroom, gar., full bsmt., 1½ baths, remodeled, conven. loc., SWR SD, $140,000. Carol, Ext. 3315 or 744-7493; or Janet, Ext. 2345 or 929-3910.

SPEONK/WESTHAMPTON BEACH - 2 bdrm., 1½ baths, cac, patio, approx. 1,000 sq. ft., skylights, 20 min. to Lab., $800/mo. or $135,900. Rich, Ext. 4834 or 588-0507.

SPEONK - 2-bdrm. mobile home, 14'x60', fam. park, w/d, shed, bay window in l/r, $38,500. Dave, Ext. 5460.

WHITESTONE, QUEENS - 2-bdrm. att. brick home w/gar., 2 baths, eik, l/r, bsmt., yard, excel. neighborhood, must sell to settle estate, best offer over $175,000. Frank, Ext. 4273.

YAPHANK - Colonial Woods, 2-bdrm. condo, 1½ baths, fin. bsmt., wet bar, pool, tennis, rec., facil., 5 min. to Lab., red. to $100,000. Monica, 924-3846.

HUBBARDTON, VT - 38 deeded acres situated on town-maintained road w/power & phone, wooded w/view of Lake Bomoseen, ask. $34,000, neg. Tom, Ext. 2823.

Wanted

APT/HOUSE - 1-2 bdrm., 7/21-8/21, for visiting scientist. Ext. 4239 or 924-0240 after 5 p.m.

CASSETTE PLAYER - or deck w/variable pitch. George Hrabek, 835 Vlair St., Bohemia, NY 11716.

COPY MACHINE - reliable for home use, reasonable. Pat, 281-0701.

HOUSE OR APT. TO SIT - July 2-8, or longer if needed. Erik, Ext. 5056.

HOUSE TO SIT - free, exp., reliable, any period after Aug. 3. J. Allentuck, Ext. 2412.

PEOPLE TO FORM A SUPPORT GROUP - for caregivers of elderly relatives, to meet monthly. Diane, 821-3762.

PLAY - new on-site mom w/2 & 4-yr. olds, wishes to meet others for play & commiseration, will host. Susan, 282-3180.

ROOMMATE - for priv. house in Ridge, 3 mi. from lab, $300/mo. Arup, Ext. 3687 or Mike, Ext. 2671.

TUTOR - 5th-grade student needs tutoring over summer, Manor Park, Mastic area. Barbara, Ext. 3381 or 281-4208.

TUBED AUDIO COMPONENTS - working or not, by Marantz, Macintosh, Dyna, Futterman, Ampex, Fisher, Telefunken, REL, Scott, etc. Jim, Ext. 4584.

WET SAW - for cutting bricks, rent or buy. Tony, 698-9274.

In Appreciation

The Conte family wishes to thank all those in ADD for their sympathy and support on the loss of our Dad. — Richard Conte