

RHIC Construction Funds in President's Budget

Funding to initiate Brookhaven's Relativistic Heavy Ion Collider (RHIC) construction project has been included in the budget proposal for fiscal year 1991 that President George Bush submitted to Congress last Monday.

The President's \$1.23-trillion budget would provide BNL with \$15 million in construction funds for RHIC in FY91, the first year of the six-year, \$397-million project. Congressional hearings to deliberate the nation's final FY91 budget will begin in the spring. If, as expected, Congress approves the RHIC project, construction efforts will begin in October.

Inclusion in the President's budget is a major step forward for the RHIC project. "RHIC has been under development at Brookhaven for many, many years, by many, many people," said BNL Director Nicholas Samios, "so I am extremely pleased by the decision of the President and the U.S. Department of Energy [DOE] to go ahead with this project."

Continued Samios, "I appreciate the support of the nuclear physics community — especially T.D. Lee of Columbia University, and Allan Bromley, the President's Science Advisor. For their strong political support, I'd also like to thank Senator Alfonse D'Amato and the Long Island Congressional delegation."

Not Since the Big Bang

The focus of this support is a colliding beam accelerator in which heavy ions — large atomic nuclei up to gold — will be circulated in two opposing directions. Reaching a



Roger Stouenburgh

At the site for BNL's Relativistic Heavy Ion Collider (RHIC), now included for construction funding in the Presidential budget for fiscal year 1991, stand: (from left) Thomas Ludlam, RHIC Project and Physics Department; Satoshi Ozaki, Head of the RHIC Project; BNL Director Nicholas Samios; Physics Department Chairman Peter Bond; and Eric Forsyth, Chairman of the Accelerator Development Department.

combined energy of 200 billion electron volts per nucleon (GeV/n), the beams can collide at six points around the almost 2.5-mile-in-circumference ring.

The release of fundamental particles from the nuclei during these violent conditions is expected to produce conditions so extreme that scientists hope to observe, under laboratory conditions, phenomena that have not occurred in the natural

universe since the original "Big Bang."

"The time for RHIC is now," said Satoshi Ozaki, Head of the RHIC Project. "I am raring to plunge into the project and get things moving because, with its unique capabilities, RHIC is going to open up new areas at the cutting edge of nuclear physics."

Physics Department Chairman Peter Bond agreed. "It's an extremely

exciting time for physics," he said. "There's an enormous potential for new discovery."

Strong Support for RHIC

The nuclear physics community has shown strong agreement with that assessment since 1983. Then, the Nuclear Science Advisory Committee (NSAC), which advises DOE, named it the community's next top priority, following the completion of the Continuous Electron Beam Accelerator Facility.

That recommendation was strengthened in NSAC's recently released, 1989 Long-Range Plan, which stated, "... we strongly endorse the recommendation of the 1983 Long-Range Plan and subsequent NSAC deliberations that RHIC has the highest priority for new construction in the nuclear physics program."

Another endorsement came in the summary of last summer's DOE review of RHIC, chaired by L. Edward Temple Jr.: "The review committee found that RHIC is fully ready for start of construction."

Arriving at this state of readiness was an impressive effort, said Thomas Ludlam, who headed the RHIC Task Force formed in 1985 to guide the concept to project status.

"It's very hard to get a world-class accelerator project under way these days," Ludlam said. "RHIC is going to fly because of its unique scientific capabilities and because of the unique capabilities of the people here at Brookhaven to get the job done. For the past several years, members of the Accelerator Development, AGS and Physics Departments have worked together to get this project ready to go, and they have succeeded very well in convincing the scientific community, as well as the funding agencies, that this will be a top-notch effort."

Emphasis on Magnet Production, Long Lead-Time Items

As defined in the President's budget, construction of RHIC will start "with emphasis on production of superconducting dipole, quadrupole and sextupole magnets for the accelerator arcs." The initial money is also earmarked to "initiate procurement of long lead-time items for vacuum, cryogenic and beam instrumentation systems."

Long lead-time items, Ozaki explained, include such things as superconducting cable and magnets, on which extensive research and development has already been done.

"We will be writing specifications and going out for procurement," Ozaki said. "The commissioning of the program will also allow me put a construction-project team in place and to start gathering even more expertise." As the RHIC project grows over the next two years, some 300 people could be added to the project staff.

In addition to the \$15 million in construction funding, the President's budget includes \$6.8 million from DOE for R&D in FY91. DOE has been supporting RHIC with R&D funding for several years. RHIC was originally proposed for construction at BNL in 1984, to occupy the almost-completed ring built for the Colliding Beam Accelerator (CBA).

RHIC also takes advantage of other inheritances from CBA, such as expertise in magnet development and the huge refrigeration system built to provide the cryogenics for cooling superconducting magnets. "The fact (continued on page 2)

DAS Consolidated Into Eight Divisions

To strengthen existing programs within the far-flung Department of Applied Science (DAS) and to encourage new collaborations, DAS Chairman Leon Petrakis has consolidated the department's organization.

In a move announced to DAS staff in a Berkner Hall meeting on Thursday, January 25, eight new divisions have taken the place of the previous eleven divisions, four groups and one center on the DAS organizational chart. While seven of the new divisions are led by former division heads, David Welch joined their ranks as a new division head. In addition, James Hurst has been named Assistant to the Chairman.

As Petrakis explained to the audience, "Some of the components within DAS are truly outstanding, second to none and comparable to the best at any other academic or government laboratory. Certain of the department's components, however, have much greater potential than has yet been realized. It is my hope that the reorganization will allow them to realize their full potential, and better permit the department as a whole to fulfill its research mission."

Four of the new divisions now come under the heading of Environmental, Health and Mathematics Programs; the other four are considered Energy Science and Technology Programs.

Environmental, Health and Mathematics Programs

Headed by George Hendrey with Eugene Premuzic named as his deputy, the new Biosystems Research & Engineering Division was built around Hendrey's old Environmental Biotechnology Division. Arokiasamy Francis, Richard Sapienza, and



Roger Stouenburgh

During the recent reorganization of the Department of Applied Science, Chairman Leon Petrakis (front, center) established the Department Council, which meets semimonthly to advise him on key issues. In addition, Petrakis instituted a semimonthly department seminar, to gather the staff of the eight divisions together regularly.

Made up of the eight DAS division heads, the Department Council includes: (back, from left) Ronald Peierls, Analytical Sciences Division; Leonard Newman, Environmental Chemistry Division; Sharon Smith, deputy head of the Oceanographic and Atmospheric Sciences Division, representing division head Paul Falkowski (absent); John Andrews, Energy Efficiency and Conservation Division; (front, left) David Welch, Materials Science Division; and (front, right) George Hendrey, Biosystems Research and Engineering Division. Absent from the picture are: Jack Fajer, Chemical Sciences Division; and Kelvin Lynn, Applied Physics Division.

During the Council's deliberations, Richard Melucci, DAS Administrator Manager, and the Assistant to the Chairman, James Hurst, (both absent) are also involved.

Meyer Steinberg have been named group leaders, along with Hendrey and Premuzic.

Explains Petrakis, "We brought in researchers and groups from the old Process Sciences Division and the Energy Applications Group to take

advantage of new funding opportunities in waste management. We hope to team with BNL's Department of Nuclear Energy in seeking short- and long-range funding for research and development into the national (continued on page 2)

RHIC

(cont'd)

that RHIC is being built at BNL with all these systems in place makes it very cost-effective," observed Ozaki.

\$397 Million Over Six Years

As outlined in the President's budget, RHIC will receive \$397 million in construction funds as follows: FY91, \$15 million; FY92, \$50 million; FY93, \$80 million; FY94, \$90 million; FY95, \$90 million; and FY96, \$72 million.

In addition to RHIC construction, about one-quarter of these funds will be used for experimental detectors, which will be placed at the accelerator's collision points. Detector R&D has already been initiated, Ozaki said, using R&D funds from FY90. "Now we will be working on procedures by which people can submit proposals for experiments," he added. "The detectors and the accelerator should all be ready together in 1997."

From HITL to RHIC

When RHIC is ready, it will continue a line of experimentation that began at BNL in 1986, with the commissioning of the heavy ion transfer line (HITL) linking BNL's Alternating Gradient Synchrotron (AGS) with the Tandem Van de Graaff.

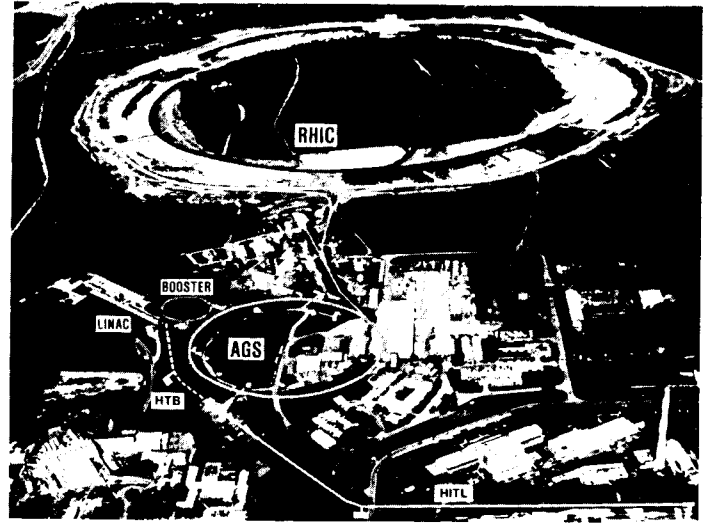
Since then, nuclei as heavy as

The RHIC Accelerator Complex

The RHIC accelerator complex will include several preexisting BNL facilities. Already, nuclei as heavy as silicon are initially accelerated in the Tandems and then transported via the heavy ion transport line (HITL) to the AGS, where research at energies of 14.5 billion electron volts per nucleon is conducted. The completion of the Booster ring next year will allow heavier nuclei to be stripped of their electrons and become heavy ions, thus enabling the AGS to accelerate them and, eventually, inject them into RHIC.

silicon generated in the Tandem have been transported to the AGS, where they have been accelerated to 14.5 GeV for fixed target experimentation. When the Booster, now under construction, comes on line in 1991, it will make possible the acceleration of ions as heavy as gold in the AGS — which will then be prepared to serve as the injector for RHIC, as well as to continue its own program of experiments.

"The experimental program for RHIC is something that we have been building up to," said Bond, "and the heavy-ion program experiments at the AGS and at CERN have laid the groundwork. We've had some confirmation of theory, as well as some unexpected and provocative results. This reaffirms our feeling that we are opening up a whole new realm."

**A Look Back in Time**

In this realm, physicists expect the nuclei that collide so violently under extreme temperatures and densities to break down into a soup of their most fundamental constituents — quarks and gluons — forming a plasma akin to that from which our universe emerged in the microseconds following the Big Bang. As these particles scramble to reunite, as the strong force impels them to do, will they recreate creation as we know it, or will they recombine in some totally new way?

For Samios, the fascination with this realm was underscored when he read Stephen Jay Gould's observa-

tions on the evolution of life in his new book *Wonderful Life: The Burgess Shale and the Nature of History*.

"Gould noted that, with evolution, we can't go back and redo the experiment to see if that's the way it really happened," said Samios. "But with RHIC, it will be a case where we can go backwards and create conditions the way they were in the very first instants — we can look back in time."

— Anita Cohen

Editor's note: A story on the potential effect of the President's FY91 budget on other BNL programs will appear in the Bulletin in the near future.

In Memoriam

William J. Devall, a Refrigeration and Air-Conditioning Engineer with the Utilities Group of the Plant Engineering Division (PE), died suddenly on January 23. He was 45 years old.

Devall came to BNL in May 1978. His 12 years at the Lab were all with PE, although he was normally assigned to shift work at the Alternating Gradient Synchrotron.

He was a resident of Shoreham, and he is survived by his wife Diane, his son Scott and his daughter Christy.

Donations for Devall's family are being collected by his coworkers, Tirre Farmer, beeper 0231, and Joe Buscemi, beeper 0572.

Software Demo

A comparison of the new dBASE IV to dBASE III+ will be featured in a demonstration of dBASE IV to be given by a representative of the Ashton-Tate Corporation on Thursday, February 8 at 2 p.m. in the CCD Seminar Room, Bldg. 515. The presentation will focus on the new user interface known as the Control Center.

In addition, APPLAUSE II will be demonstrated. This is a business graphics and presentation package, a direct upgrade from Chart Master, Sign Master, Diagram Master and Draw Applause.

For more information, call Michael O'Reilly, Ext. 7203, or Kurt Fuchel, Ext. 4116.

DAS Divisions (cont'd)

dilemma of nuclear, hazardous and mixed wastes."

The Environmental Chemistry Division gained three researchers from the old Atmospheric Sciences Division, and Russell Dietz became deputy to division head Leonard Newman. "By bringing in three good people, this already strong division was further strengthened and can better pursue its research into the causes of acid rain and global change," comments Petrakis.

The former Mathematical Sciences Division headed by Ronald Peierls has metamorphosed into the Analytical Sciences Division. Still under Peierls, the division's deputy is Samuel Morris.

Along with Morris, the former Biomedical and Environmental Assessment Division and the Injury Prevention and Analysis Group have joined this new division. Jerome Barancik and Leonard Hamilton are group leaders within this division, as is Peierls.

"We have brought mathematicians, statisticians, epidemiologists and other researchers under one division to encourage collaboration, and the transfer of their methods and findings to American industry," explains Petrakis.

The old Oceanographic Sciences Division has incorporated most of the former Atmospheric Sciences Division, to become the Oceanographic and Atmospheric Sciences Division. Paul Falkowski heads it, Sharon Smith is deputy, and Paul Michael is group leader.

Comments Petrakis, "Paul Michael has accepted the responsibility to coordinate the modeling effort for our global change program, and, to build on our strengths in this area, he'll be working with Paul Falkowski, Lenny Newman, Ron Peierls, Steve Schwartz and outside researchers."

Energy Science and Technology Programs

The Applied Physics Division includes the former Atomic and Applied Physics, and part of the old Materials Science Divisions. Kelvin Lynn heads the new division, and Allen Goland and Keith Jones are group leaders.

Says Petrakis, "The division will continue its research on interfaces, atomic physics and chemical sciences

under Keith Jones, while looking into surface science and catalysis under Kelvin Lynn and expanding its technology transfer effort under Allen Goland."

Headed by Jack Fajer, the Chemical Sciences Division was the only DAS division not to change. "It will continue its work on such topics as porphyrins, electrochemistry, photochemistry, combustion, high-temperature chemistry and metal hydrides," says Petrakis.

The newly established Energy Efficiency and Conservation Division takes in the old Building and Community Systems Division, and the Process Materials Group. Explains Petrakis, "It will look at energy efficiency and conservation as a whole — from materials to systems."

Headed by John Andrews, with Roger McDonald as deputy, the division has four group leaders: Lawrence Kukacka, Jerome LaMontagne, Roger McDonald and Barbara Pierce.

Reborn from part of the old division with the same name, the new Materials Science Division will devote its attention to superconductors and conducting polymers — "two of the hottest topics in the field," comments Petrakis. This division is headed by David Welch, whose deputy is Masaki Suenaga.

— Marsha Belford

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

HMO Reps on Site

Representatives of the five Health Maintenance Organizations (HMO) whose services are being offered to active BNL employees as additional health-care options will be at Berkner Hall on Wednesday, February 7, 14 and 21, between 11 a.m. and 1:30 p.m., to answer employees' questions about their plans.

Employees are reminded that the deadline for HMO enrollment is February 26, with coverage effective March 1. Those wishing to enroll in one of the optional HMO plans must contact Personnel Services, Bldg. 185, Ext. 2877, for the necessary forms.

Sexual Harassment in the Workplace

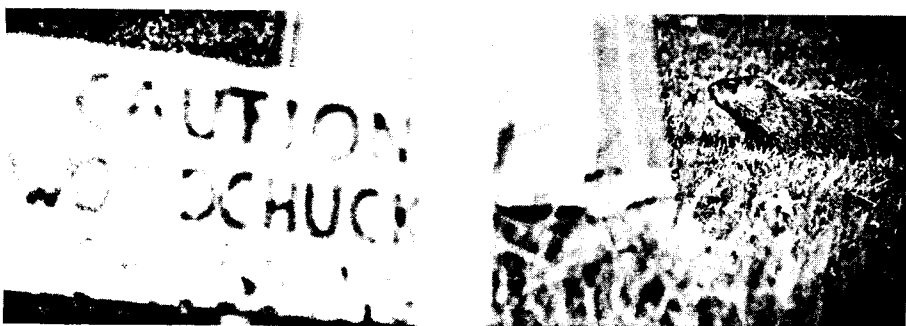
A panel discussion about "Sexual Harassment in the Workplace" will be featured at the next dinner meeting of Brookhaven Women in Science (BWIS). All employees are invited to the meeting, which will begin at 5:15 p.m., on Tuesday, February 6, in the North Room of the Brookhaven Center. An optional dinner will follow.

The program's panelists are: Virginia Brown, Women's Program Coordinator; Donna Friedman, Psychologist; Employee Assistance Program;

Michael Goldman, BNL Legal Counsel; Glenn Jennings, Assistant to the Director for Equal Opportunity; and Larry Runge, Manager, Safeguards & Security Division.

The discussion will include a period for employees to voice their concerns. Anonymous questions may be sent in advance to Carmen Benkowitz, BWIS Program Committee Chair, Bldg. 51.

Reservations for dinner, at \$15.95 per person, should be made through Flo O'Brien, Ext. 2265, today.

Sleep Well, Little Groundhog!

Roger Stoutenburg

Last fall, some Good Samaritan put this sign up at the driveway between Physics and Photography to protect the little woodchuck — also known as a groundhog — pictured above when he decides to amble from his home under the trailer behind Photography across the driveway, to graze on the grass. This winter, another sign appeared over the first one, advising "Quiet, please! Groundhog sleeping. . ." Perhaps today you'll want to be especially quiet. It's February 2 — Groundhog Day — and legend has it that, if he wakes up, comes out, and then sees his shadow, he'll scurry back into his burrow — signifying six more weeks of winter ahead!

P-CAD Users Meeting

The next P-CAD Users Group Meeting will be held on Wednesday, February 14, from 10 a.m. to noon, in the CCD Seminar Room, Bldg. 515.

Doug Marks of Doug Marks Associates will be available to answer any questions about the 4.5 release. All are invited to attend.

For more information, call Pam Mansfield, Ext. 7286.

Social Club

The Social Club has tickets for the following events at the Nassau Coliseum:

- **T.N.T. Truck and Tractor Pull** — Friday, March 2, second-tier seats, \$14/adults, \$10/12 years and under, call for reservations, money due February 12.
- **N.Y. Saints Lacrosse** — Saturday, March 17, lower third-tier seats, \$9.50, money due February 16.
- **Ringling Brothers & Barnum & Bailey Circus** — Sunday, March 25, \$13.50 for all, money due March 2.
- **Olympic & World Figure Skating Champions** — Sunday, April 1, second-tier seats, all \$35, money due March 13.
- **Baltimore Nightlife Tour** — 4 days, May 25, \$285 ea./double, \$281 ea./triple, \$25 deposit due now, balance March 14.
- **National Parks Tour** — 13 days, August 11, \$1,529 ea./double, \$1,499 ea./triple, \$100 deposit due now, balance by May 31.
- **Germany: Oktoberfest or the Passionplay Tours** — 8-10 day Passionplay Tours start in May with discount prices for BNL employees starting at \$1,285 ea./double; Oktoberfest discount prices for BNL employees start at \$899 ea./double, 8 days starting in September or October; both tours are on an individual basis, no quota required for BNL discount.

Contact Doris Terry, Ext. 7610, Bldg. 197C as soon as possible for reservations, so that dates are not cancelled due to lack of interest.

Service Awards

The following employees celebrated BNL service award anniversaries during the month of January:

Thirty-Five Years

Kurt Jellett..... Accel. Dev.

Thirty Years

Frances B. Scesny..... Personnel

Harvey E. Wegner..... Physics

Twenty-Five Years

John Alois..... Cent. Shops

John N. Brown..... AGS

Joseph R. Klemish Jr..... S&EP

Fred B. Krieger..... Comp. & Comm.

Wayne A. Rasmussen..... NSLS

Ronald M. Yuhas..... Comp. & Comm.

Twenty Years

Clarence A. Hicks..... Plant Eng.

Karin I. Karlstrom..... Chemistry

Carole J. Saurino..... Comp. & Comm.

Ten Years

James M. Alduino..... AGS

Charles C. Finfrock..... Nuc. Energy

Ady Hershcovitch..... AGS

John B. King..... Con. & Proc.

John H. Klug..... NSLS

Ake H. Kvich..... Chemistry

Michael L. Palumbo..... Cent. Shops

R. Kenneth Reece..... AGS

Nancy O. Sautkulis..... Chemistry

Peter F. Stelmashuk..... Plant Eng.

Cosmore D. Sylvester..... NSLS

Phyllis L. Tinsley-Smith..... Biology

Mark F. Walker..... Cent. Shops

Arthur W. Wernersbach Jr..... ADD

Gary M. Zukas..... Reactor

South African Author Mark Mathabane To Give Black History Month Lecture

The white man of South Africa certainly does not know me. He certainly does not know the conditions under which I was born and had to live for eighteen years. So my story is intended to show him with words a world he would otherwise not see ... and to make him feel what I felt when he contemptuously called me a "Kaffir boy."

Black History Month — Other Events

Other events planned for Black History Month include:

- **A Gospel Extravaganza** — Once again, this event, sponsored by the Afro-American Culture Club (AACC) has been sold out. Ticket holders are reminded that the show starts at 7 p.m. tomorrow night in Berkner Hall.

- **"Black Eye" Photo Exhibit** — Featuring photographic works by four black artists and sponsored by the BNL Camera Club, this exhibit will open on Wednesday, February 7, from noon to 1 p.m., in Room C, Berkner Hall. The show will continue to be open noon hours through Wednesday, February 14.

The featured photographers will include two BNL'ers: Ripp Bowman, Alternating Gradient Synchrotron Department, who has won numerous awards for his advertising and portrait photography, and Tom Johnson, Staff Services Divisions, who is interested in darkroom work. Also on display will be the works of Felton Miller and Walker Turner.

- **Lecture by Marquette Floyd** — The New York State Supreme Court Justice will speak on "Being a Good Neighbor," on Tuesday, February 13, at 7 p.m., in Berkner Hall. Sponsored by the AACC.

- **BNL Talent Show** — It's not too late to enter this AACC-sponsored showcase for talented BNL'ers as well as for outside performers — just call Fran Ligon, Ext. 3709, today. Dancers, singers, comedians, magicians — all talented individuals or groups — are invited to perform on the Berkner stage on Saturday, February 17, at 7:30 p.m.

Mark Mathabane wrote these words in his autobiography, *Kaffir Boy*, titled after the term used by white South Africans to refer disparagingly to blacks. The book, which reached number three on the New York Times best-seller list in 1987, recounts the inspiring story of Mathabane's life — his childhood growing up amid poverty, violence and apartheid in the black South African township of Alexandra; his incredible mother who, though illiterate, instilled in him the idea that education could bring him a better life; and the amazing path that led him past tremendous obstacles to a tennis scholarship and college in the U.S.

Following *Kaffir Boy's* publication, Mathabane wrote in the preface to his second book, *Kaffir Boy in America*, "Most of the book's readers wanted to know the following: How has my life turned out in America? What has happened to my family, whom I left behind in the ghetto? How do I compare the black experience in America and in South Africa?"

The answers to these questions are the subject of *Kaffir Boy in America*, which was published in 1989. They are also the topics that Mathabane will address when he delivers a Black History Month lecture on Tuesday, February 6. Sponsored by the Afro-American Culture Club, the talk will begin at 8:30 p.m., in the Seminar Room on the first floor of Physics, Bldg. 510.

In *Kaffir Boy in America*, Mathabane recounts his odyssey in the U.S. — a journey through which he became ever more aware of the many sides of America — from its immensity to its diversity, from its luxuriousness to its poverty. Interwoven with his autobiographical account are Mathabane's observations on such subjects as education, racial discrimination and apartheid. An eloquent and perceptive speaker, Mathabane will share many of these views in his Brookhaven talk.

Mathabane arrived in the U.S. in 1978, at the age of 18. After graduating from Dowling College in Oakdale in 1983, he entered the Columbia School of Journalism. He was work-



Mark Mathabane

ing on *Kaffir Boy* during these school years, and with the book's publication, he became a much sought-after lecturer about apartheid in South Africa, where his book has been banned.

He has appeared on many television and radio programs, including "Like It Is," CNN's "International Hour" and the "Oprah Winfrey Show."

Winfrey became one of Mathabane's biggest admirers. "I have never been more moved by any book," she said in a New York Times article about *Kaffir Boy* on September 24, 1987. "For most people, apartheid is just an abstraction, a symbol of a movement. This book turns the symbol into feelings. You breathe and feel it and live it for yourself." Having purchased the movie rights to *Kaffir Boy*, Winfrey is currently working on an ABC "Movie of the Week" based on it.

Winfrey was so affected by Mathabane and his book that she assisted him in his previously frustrated efforts to bring his family to the U.S. In June 1987, after almost nine years, he was reunited with six members of his large family. Though his mother, grandmother and one sister had to return to South Africa, three of his siblings remained to pursue an education. His brother is now a college freshman, while his two sisters, both high school students, live with Mathabane, his wife and their year-old daughter in North Carolina.

Aviation Club

The BERA Aviation Club will sponsor a course preparing students for the written exam for their instrument rating. It will be held on Wednesdays, beginning February 7, 5:15-7:30 p.m., in the small seminar room, Bldg. 510. It will run 10-15 weeks depending on the students' readiness for the exam.

Although the class is free, books will cost approximately \$45. If interested in attending the course, contact Sue Norton, Ext. 3492, Bldg. 1005.

Hospitality News

Jerry Mintz, founder of the Alternative Education Resource Organization, will be the guest speaker at the next Hospitality Committee get-together on Tuesday, February 6, at 9:30 a.m., in the Brookhaven Center.

Mintz will present an overview of alternative education today, worldwide and locally. He will illustrate this topic with videotapes of alternative educational programs. A question-and-answer period will follow.

From 1982 to 1989, Mintz was associated with the National Coalition of Alternative Community Schools, serving as its executive director 1985-89.

Please join us for this presentation. Spouses of Lab employees and guests are welcome. Bring the children, as free babysitting will be provided. Coffee, tea and danish will be served.

On the Menu

Lunch at the Cafeteria

Monday, February 5

Soup: Cream of chicken .75/.95
 Entree: Baked ziti
 w/garlic bread & 1 veg. 3.00
 Entree: Chicken breast hero w/1 veg. 3.10
 Fitness fare: Beef stew & 1 veg. 3.00
 Carvery: Hot pastrami sandwich 2.85
 Grill: Monte Cristo 2.85

Tuesday, February 6

Soup: Bavarian lentil .75/.95
 Entree: Sausage & pepper hero 2.85
 Entree: Fried flounder w/1 veg. 3.10
 Fitness fare: Sweet & sour pork w/veg. 3.10
 Carvery: Open-face roast beef sandwich w/gravy 2.85
 Grill: Mushroom cheeseburger w/fries 2.35

Wednesday, February 7

Soup: Cream of mushroom .75/.95
 Entree: Veal stew over rice 3.10
 Entree: Fried liver & onions w/1 veg. 3.10
 Fitness fare: Vegetarian lasagna w/veg. 3.10
 Carvery: Hot corned beef sandwich 2.85
 Grill: Two franks & sauerkraut 1.25

Thursday, February 8

Soup: Minestrone .75/.95
 Entree: Salisbury steak w/1 veg. 3.10
 Entree: Cheese tortellini
 w/meat sauce & 1 veg. 3.00
 Fitness fare: Chicken oregano w/1 veg. 3.10
 Carvery: Baked Virginia ham sandwich 2.85
 Grill: Reuben 2.85

Friday, February 9

Soup: New England clam chowder .75/.95
 Entree: Fried clams on bun 3.10
 Entree: Two braised short ribs w/1 veg. 3.10
 Fitness fare: Fish Florentine w/1 veg. 3.10
 Carvery: Hot turkey sandwich
 w/gravy & cranberry sauce 2.85
 Grill: Tuna melt w/fries 2.85

SPICE: Roadside Diner, featuring all week a stuffed croissant sandwich & pie of the day.

At the Brookhaven Center

Mon.: Mozzarella & chicken tender platter
 w/coleslaw 3.85
Tue.: Open-face hot roast beef sandwich
 w/French fries 3.65
Wed.: Veal Parmesan hero
 w/fried zucchini 3.65
Thu.: Cheese manicotti
 w/garlic bread & tossed salad 3.55
Fri.: Catch of the day 3.65

OCAW Meeting

The next meeting of the Oil, Chemical and Atomic Workers (OCAW) Union Local 8-431 will be held at 5:15 p.m., on Tuesday, February 6, at Forest's in Calverton.

Bowling

White League

Ed Beadle had a 225, Al Pinelli 213, Caryl MacDougall 213/189, Gerry Riker 213/182, Mary Scheidet 192.

Purple League

Karen Vogel had a 193/187, Cheryl Miezianka 191, Pat Manzella 180, Ellie Adams converted the 2/7/10 split.

Pink League

Maryann Reynolds had a 221, Pam Meehan 180, Renie Rosati 173, Ginny Diebel 171.

Red/Green League

N. Combatti had a 223/200/609 scratch series, A. Warkentien 222/203, P. Ouvrard 219, G. Meinken 216, J. Muller 212/206/603 scratch, K. Riker 208, R. Larsen 205, J. Ferrante 203, W. Kristiansen 203, A. Sauerwald 203, R. Sick 200.

BROOKHAVEN BULLETIN

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Arrivals & Departures

Arrivals

Michael R. Pankowski Reactor
Edward Shuryak Physics

Departures

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

Nicholas Fanizzi Plant Eng.
Shin-Guang Shyu DAS
Marc H. Weber Physics

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

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.

4153. MAIL CLERK - Staff Services Division.

4154. TOOL AND INSTRUMENT MAKER, GROUP LEADER (Light Shop) - Central Shops Division.

4155. LAB CUSTODIAN, GROUP LEADER (day shift) - Plant Engineering Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4156. ENGINEERING POSITION - Requires BS in engineering and a minimum 5 years' experience in energy/utility systems, cogeneration, HVAC systems and controls, electrical systems, energy-management control systems and estimating. Also requires demonstrated experience in conceiving, designing, estimating and implementing energy-conservation projects, including modification to existing energy-consuming systems. Will be responsible for field investigating, identifying and developing energy conservation projects, preparing implementation costs, justifying requests for DOE funding, and overseeing the design and construction of energy projects. PE registration is desirable. Plant Engineering Division.

4157. TECHNICAL POSITION - Requires AAS/BS in a technical field and a minimum of 3 years' health physics experience, preferably in external dosimetry and calibration. Will conduct exposure tests and quality control, work area and environmental TLD programs; assist in dosimetry projects and calibration of standard sources and special dosimeters. Will write SPOs and review radiation exposure investigation, participate in HP Summer Training Program, emergency dosimetry program and intercomparison studies. Safety and Environmental Protection Division.

4158. CARPENTER (temporary) - Under minimum supervision lays out, constructs, modifies and maintains buildings and component parts from construction drawings, rough sketches, or verbal instruction. Works with wood, wood substitutes and combination materials, and flooring, roofing and wall materials. Plant Engineering Division.

4159. SCIENTIFIC ASSOCIATE POSITION - Requires BS in biology, agricultural engineering or related field, demonstrated electromechanical capabilities and the ability to work independently. Duties will involve working at the Free Air Carbon Dioxide Enrichment Facility Development (FACE) field-program operation. Will require extended assignments in remote locations. Previous computer experience desired. Department of Applied Science.

Motor Vehicles & Supplies

89 KAWASAKI ZX10 NINJA MOTORCYCLE - 1,000cc, black, alum. frame, radials, extras, 6k mi., mint cond., \$5,200. Charlie, Ext. 7638.

88 GMC VANDURA VAN - Tern pkg., dual ac, heater, all options, VCR, TV, 1-of-a-kind paint job, excel. cond., \$16,500. 878-1178.

88 HYUNDAI EL GL - 3-dr., h/b, red, 5-sp., p/w, sunroof, am/fm cass., 16k mi., v.g. cond., \$4,300. R. Meier, Ext. 4629 or 929-4258.

88 HONDA ACCORD LXI - 4-dr., champagne, 34k mi., p/sunroof, loaded, excel. cond., \$10,900. Don or Sue, 473-6570 after 7 p.m.

87 MUSTANG - h/b, white, 4-cyl., p/s, p/b, loaded, 23k mi., orig. owner, mint cond., \$7,800. Emil, Ext. 4289, or Cheryl, 698-2007, after 5:30 p.m.

87 TOYOTA PICKUP - long-bed, extra cab, deluxe, a/t, p/s, am/fm, 33k mi., excel. cond., \$6,250. Joe, Ext. 5213 or 874-4188.

87 MAZDA 323-LX - 4-dr., a/t, ac, p/s, am/fm cass., sunroof, 5-yr. service contract, \$3,900. John, Ext. 3147 or 924-1038

86 HYUNDAI EXCEL GL - 47k mi., 5-dr., h/b, red, 5-sp., am/fm cass., new tires, must sell, \$1,900 or best offer. Leo, 874-8981

86 PEUGEOT TURBO WAGON - a/t, leather int., mint cond., \$8,950. 821-2002 or 331-7060 eves.

86 DODGE CHARGER - p/s, p/b, ac, am/fm radio, excel. cond., asking \$3,300. Ext. 3160 or 289-5704 after 5 p.m.

86 CITATION TRAILER - 5th wheel, 25', awning, ac, heater, refrig., double sink, bath, hitch, brake controller, \$9,600. Walter, Ext. 3457 or 732-1913.

86 PONTIAC FIERO GT - V-6, fuel injection, 4-sp., black/gray int., 29k mi., orig. owner, garaged, \$8,700. Ext. 3992 or 331-1003 eves.

86 HONDA REBEL MOTORCYCLE - low rider, 305cc, black, runs well, looks great, 3k mi., economical & fun, \$750. Andrew, Ext. 2012.

86 CHEVY SPRINT - 2-dr., 5-sp., body damage, best offer. Joe, pager 0925 or 728-1859 eves.

85 OMNI GLH - turbo, 5-sp., new engine, clutch, alternator, ac, black, good tires, fast, fun, very clean, \$2,900 neg. Charlie, Ext. 7638.

85 DODGE CHARGER - a/t, ac, p/s, p/b, sky blue, excel. cond., \$2,900. 928-7734.

84 HONDA CRX - red/silver, 5-sp., clean in & out, runs well, must sell, asking \$3,500. Patricia, 654-2387.

84 YAMAHA RZ350 - red/white, 9k mi., new metzlers, tank pack, garaged, \$1,500. Scott, Ext. 7110 or 874-3652.

84 EAGLE - 4wd wagon, a/t, p/s, ac, am/fm cass., 46k mi., clean, asking \$4,300. 473-2473.

84 SUZUKI RM250 DIRT BIKE - DG racing engine, new tires, chain, sprockets, rings, front forks, fast. Glenn, Ext. 4612.

84 OLDS OMEGA - 2-dr., p/b, p/s, am/fm, ac, 67k mi., good cond., must see, \$3,000. Jim, Ext. 4606 or 654-5049 after 6 p.m.

83 FORD ESCORT - 56k mi., no rust, new brakes, exhaust, belts, am/fm cass., \$1,200. Steve, Ext. 5567.

82 NISSAN STANZA - 70k mi., 5-sp., good clutch, 2-dr., h/b, v.g. cond., clean, \$1,200. Jim C., Ext. 4150.

82 MUSTANG - 4-cyl., sunroof, low mileage, good cond., Ext. 2939.

81 AUDI 5000S - 98k mi., a/t, am/fm cass., \$1,900; 76 Chevy Caprice Classic, 110k mi., a/t, p/s, p/b, am/fm, \$400. Patti, Ext. 4001.

81 DATSUN 310GX - runs well, excel. commuter car., \$1,000 or best offer. Jeff, 727-5194 after 6 p.m.

77 CHEVY MALIBU - good for parts; tires, 6, P215/75R16, good cond., moving, \$250/all. Aron, Ext. 2434.

77 BUICK CENTURY WAGON - 62k mi., ac, new brakes, tires, runs well, \$2,000. Don, Ext. 3625 or 286-0428.

77 CHEVY CAMARO - V-8, 2-dr., excel. running cond., \$2,000. 281-5802 eves.

68 MUSTANG - cream puff in & out, needs nothing, must see, only serious calls please, \$8,500. Joe, 929-8321.

63 CHEVY CORVAIR MONZA - convertible, 4-sp., red/red int., white top, completely restored, \$4,500. Ext. 3992 or 331-1003 eves.

BUMPER - '89 Dodge full-size pickup, painted type; tires, Goodyear Wrangler, P235x75R15XL, w/5 lug rims, 10k mi. Glenn, Ext. 4612.

PICKUP CAP - 8', aluminum, insulated w/bunk inset, good cond., \$200. Ext. 4081.

TIRES - Goodyear Wrangler radials, P205/75R14, used, \$25/pr. 727-6959.

TRUCK CAP - A.R.E., for 6' bed w/side tool bins, only 6 mo. old, \$550. Bob, 696-6316.

TIRES - mounted, P195, v.g. cond., make offer, George, Ext. 4144.

MOTOR - Ford 351c block, mint cond., many new parts, has to be assembled, \$700. Keith, Ext. 7427 or 732-1415.

Boats & Marine Supplies

31' CORVETTE CLASSIC K/CB SLOOP - fully sound, excel. cond., nice family cruiser, \$16,000. Ext. 2053 or 363-2796.

19' BAYLINER BOWRIDER - 1988, 125-h.p. Force, canvas, trailer; 16' Sportcraft Bowrider, 1984, 50-h.p. Mercury, \$2,500 neg. Ext. 7125 or 929-8641.

Furnishings & Appliances

ELECTRIC DRYER - new, General Electric, used 1 mo., \$200. Leo, Ext. 2952.

DEN FURNITURE - 6 pieces, Colonial, excel. cond., moving, must sell, \$175. Julian, Ext. 2138.

REFRIGERATOR - Westinghouse, 16 cu.ft., auto-defrost, white, \$75; dishwasher, Caloric, 5-yr. old, \$35. Ext. 2679 or 472-6922.

CABINETS - 15' of base and wall units, walnut panel design, excel. cond.; antique baker's cupboard, oak, excel. cond. 929-4787.

HEADBOARD - & adjustable bed frame, \$15; sleds, \$6 & \$8; ice skates, 10-12, \$5. 732-2720.

ROCKER - child's, wicker, \$35; solid maple dresser, \$95. Kathy, 744-2203.

WASHER - Kenmore, portable, 1-sp., 2-cyl., straight vane agitator, good cond., \$200 or best offer. O. Booker, Ext. 3082 or 727-5912.

COUCH - contemporary, white sectional, immac., new \$3,000, asking \$1,500; black lacquer cocktail table, \$300. Ext. 2075 or 654-1471 eves.

DINETTE SET - round table, formica top, w/ 4 chairs, brown, \$30. John, Ext. 2710.

HOPE CHEST - cedar lined, good cond., \$50. Matt, Ext. 4216.

WASHER - G.E., portable, good for apt., great cond., \$75. 924-8558 after 5 p.m.

LIVING ROOM CHAIRS - 2, brown plaid, Her- culon, always covered, nonsmoker, v.g. cond., orig. \$249 ea., sell \$50 ea. 878-6637.

Tools, House & Garden

GARDEN TRACTOR - Bolens, 10 h.p., 6-sp., snow blower, chains & mower carriage, good cond. but old, \$300. Ext. 4081.

CONTENTS OF HOME - furniture, tools, will deliver. 369-0432.

WELL PUMP - shallow, piston, excel. cond., \$35; kerosene heater, Sears, 10k Btu, \$10. Victor, 363-6049.

STOVE - Vermont Castings Vigilant, wood, auto. coal hopper, glass drs., screen, used 6 mos., thermostat damper, excel. cond. \$700. 286-0904.

SPACE HEATERS - Kerosun Omni, 19,500 Btu, \$45; space heater, Remington, 35k; Rusin, 30k Btu, used 2 mos., \$95. Mark Ext. 2957.

Sports, Hobbies & Pets

DRUMS - CB700 5 piece, high hat cymbal and stand, new seat, \$400; crate PA system, 4-channel w/equalizer, 2 12" monitors, \$475. 929-8641.

SKIS - Atomic 190s, Tyrolia 490 bindings, like new with poles, \$75. Ext. 4547 or 878-1178.

LOVEBIRDS - pair, exotic colors, playful, sing and chatter w/cage, \$125. 744-3069.

FLUTE - Artley, good cond., \$200 or best offer. Ext. 3082 or 727-5912.

GUITAR - bass, Hondo, w/amp., good cond., \$150; Rossignol skis, 200cm, w/Salomon bindings, poles, new cond., \$50 firm. Keith, 732-1415.

POOL TABLE - 4'x8' ¼" slate, auto return, new felt, Fisher brand, \$350. 581-6432 after 6 p.m.

SKIS - boots, bindings, furniture. 929-8912.

TYPEWRITER - electric, excel. cond., \$60. Ext. 2372 or 281-8250 after 6 p.m.

PIANO - Spinet, Winter Co., very good cond., \$500. 281-0325 after 8 p.m. or weekend.

ICE SKATES - woman's size 9, \$10; roller skates, size 9, \$10; ski boots, Kastinger, size 10, Morsan 190 skis, \$35, golf bag, \$10. Victor, 363-6049.

SIG KOUGAR MARK II KIT - R.C. advanced trainer, \$25. Bob, Ext. 5042.

SKIS - \$10; poles, \$5; boots, \$10; skis w/bindings, \$15., furniture, freezer, \$150. Ext. 3496.

SKIS - Atomic Prisma, 170 cm w/Tyrolia 470 bindings; Dynafit CD10 rear entry boots, size 8½. 473-2473.

FISH TANK - 55 gal. w/stand and all necessities, like new. Mike, 878-0516 after 4:30.

Audio, Video & Computers

PRINTER - Epson RX-80 with extra ribbons, \$100. Chris, Ext. 2326.

VIC-20 COMPUTER - also 8k or 16k add on RAM board for same. Bill, Ext. 4312 or 281-6498.

COMMODORE 64 - 1541 disk, 1702 monitor, modem, all software, \$275. Dick, Ext. 7185.

NINTENDO - & 7 cartridges incl. Golf, John Elway, Double Dribble, 10 Yd. Fight, Baseball, Super Mario Bros., \$150. Doug, 929-8912.

COMMODORE 128 - 2 disk drives, RGB color monitor, 803 printer, 2 joysticks, 200 programs, \$1,000. Steve, 586-2394 after 4:30.

GERARD TURNTABLE - excel. cond., also antique records, good cond. 924-8558 after 5 p.m.

FILM PROJECTOR - 8mm, antique, excel. cond. 924-8558.

Miscellaneous

TICKETS - New York Islanders, Feb. 13, March 6 & 10, good seats, \$30/seat. Michael, Ext. 7909 or 325-0447.

STROLLER - Cosmos w/carriage feature, good cond., \$30. Ext. 4985 or 331-8459.

BRASS SEAGULL - \$10; ship's horn, \$10; bosun's whistle, \$10; Norman Rockwell bell, \$18; wooden wishing well light, \$18. Kathy, 744-2203.

GARMENT RACK - \$10; carry-on suitcase, \$10. Susan, Ext. 7716.

Free

RABBITS - 2 mini lops with papers and outdoor cage. John, Ext. 4405 or Karen, 472-4439 eves.

Lost & Found

LOST - gloves, leather, approx. 1/17/90. Karen, Ext. 4262.

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

RIDGE - studio apt., priv. ent., priv. driveway, \$500/mo. incl. all. Richie, Ext. 2410.

SHIRLEY - 1-bdrm. apt., eik, l/r, full bath, w/w, quiet block, \$575/mo. incl. util., single, working adult. 281-1840.

STONY BROOK - furn. rm., priv. ent., kitchenette, bath, cable, near University, \$499/mo. 751-2394 or 467-0660.

CATSKILLS - 3-bdrm. chalet w/sleeping loft, fully furn., near Hunter & Windham Mts., great for skiing. Kay, Ext. 4501, or Bea, Ext. 3642.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, 2 baths, tennis, golf, beach, pool, Jan.-Mar., \$300/wk., Apr.-Sept. \$425/wk. Guy, 689-5378.

For Sale

JAMESPORT - ¼ acre, walk to Sound, terms avail., price neg. Kathy, Ext. 5312, or 929-8467.

MASTIC - 3-bdrm. ranch, ¼ acre, 1½ baths, den, fin. bsmt., deck, appl., house fan, 3 ceiling fans, shed, fence, near school, shopping, 15 min. to Lab, ask. \$115,000. 265-2366 after 6 p.m. wknds.

MIDDLE ISLAND - Coventry Manor, 3-bdrm. townhouse, 2 full baths, l/r, d/r, kitchen, laundry rm., 5 appl., cac, pool, tennis, ask. \$104,000. Ext. 3160 or 289-5704 after 5 p.m.

MIDDLE ISLAND - 3-bdrm. condo, 2 full baths, fenced, patio, tennis, pool, 6 mi. to Lab, \$107,000. Ext. 3922 or 878-2604 eves.

N. PATCHOGUE - 3-bdrm. ranch, fp, large kitchen, bsmt., low maint. & taxes, appl., landscaping, ig sprinkler, louvered porch, \$132,900. 281-1870 eves.

PATCHOGUE VILLAGE - waterfront, 4-bdrm. Colonial, 2 baths, eik, fd/r, fam. rm., fp, balcony, deck, carpet, appl., gar., ½ acre, walk to pool, trains, schools. Jan/Emily, 286-3623 or 475-0090.

N. SHIRLEY - 8-rm. Colonial, ½ acre, many extras, 924-0960 after 5 p.m.

PORT JEFFERSON STA. - 3-bdrm. Colonial, l/r, d/r, den, eik, 1½ baths, gar., vinyl siding, fence, ig sprinklers, gas utilities, sewers, \$149,990. Ext. 4985 or 331-8459.

ROCKY POINT - 3-bdrm. high ranch, l/r w/brick fp, cath. ceiling, d/r, large kit., 2 baths, bsmt., cac, deck, 2-car gar. w/elec. doors, beach rights, 0.34 acre, \$154,900. Kochman, 744-1057.

SELDEN - 3-bdrm. Colonial, new kitchen, den w/fp, skylight, new Andersen windows, ½ acre, pool and deck, \$149,999. 698-0574.

SHOREHAM - 3-bdrm. ranch, l/r, d/r, carpet, part. fin., bsmt., detached 2-car gar., a/g pool, fenced, SWR School district, low taxes, ask. \$139,900. Judy, Ext. 5263 or 821-0401.

SHOREHAM - 4-bdrm. Colonial, 2½ baths, d/r, fam. rm., den, oak floors, 2 car gar., full bsmt., fenced yard, \$167,000. Anneke, 744-2937.

WADING RIVER - ranch, 3-4 bdms., d/r, 2½ baths, eik, fam. rm., sun rm., deck, part fin. bsmt., 2-car gar., SWR schools, ask. \$229,000. 929-4631.

WEST SAYVILLE - 8-rm. high ranch, 3-4 bdms., l/r, d/r, eik, 1½ baths, ac, Sayville SD, ¼ acre, \$149,000. Ext. 3452 or 499-8816.

TAMPA, FL - Paradise Village M.H.P., 1982 Liberty mobile home, 14'x56', 2 bdms., 1 bath, family park, all appliances, w/d, cac & heat, awning & shed. Glen, Ext. 4638.

Wanted

HOUSEMATE - share 3-bdrm. house in Mastic, 2 baths, f/p, waterfront, avail. Feb. 1, \$500/mo. incl. heat, share elec., sec. req. Walter, Ext. 4424.

HOUSEMATE - 1 bdrm. in furn. house in East. Setauket, \$410/all. Siegfried, Ext. 4360.

68 CHEVY CAPRICE - for parts. Bob, Ext. 5286.

OTHER MOMS - mother of 27-mo.-old, seeks other moms to do things with weekdays, will drive. Maribeth, 724-3825.

GENERATOR - General, Lab order after Gloria, unpacked, price neg. 744-6990 eves.

CRIB - and Fisher Price high chair. 924-5510.

SKIERS - to ski at Killington, VT, Mar. 2, 3, 4; walk to lifts; \$165 inc. lifts & lodging; respond by 2/2 to Rick, Ext. 2973, or Augie, Ext. 3884.

Services

Services are listed in the first Bulletin of every month as a courtesy to BNL employees. They are neither screened nor recommended by the Bulletin. Services forms are available in the Bulletin lobby, Bldg. 134.

BABY-SITTER - teen-aged girl, avail. eves. & wknds., North Shore preferred. 821-6847.

SOLAR NAILS - \$30 full set; \$15 fill-ins + 2 free nails; manicures, \$5, certified technician. Sue, 399-5099.

BRICKWORK - patios, walks, swimming pools, retaining walls, landscaping ties, Belgian block, 20 yrs. exp., Lab discount. Tony, 698-9274.

VIDEO - Flair Video, professional service at affordable prices, weddings, parties, all occasions, call for demo. Ray, 878-1947.

LOCKSMITH - bonded, 10% lab discount, sales, service. Pete, 399-2813 after 5 p.m.

TV, STEREO, VCR REPAIR SERVICE - 35+ years exp., pick up and delivery at BNL. Dick Hildenbrand, 732-5071.

SHEETROCKING & SPACKLING - free estimates. Kevin, 563-9855.

RUG SHAMPOOING - very reasonable, Lab discount. Jerry, 924-6019 days.

CRAFTS - custom-made, photo albums