

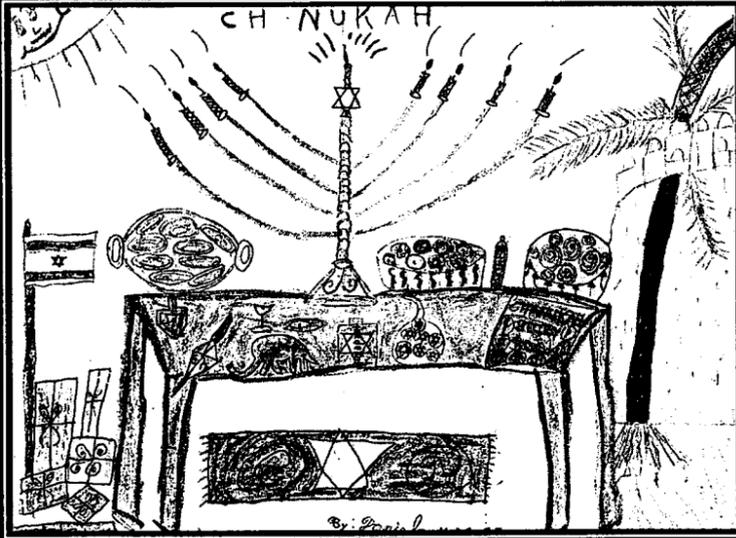
BROOKHAVEN BULLETIN

Vol. 49 - No. 49

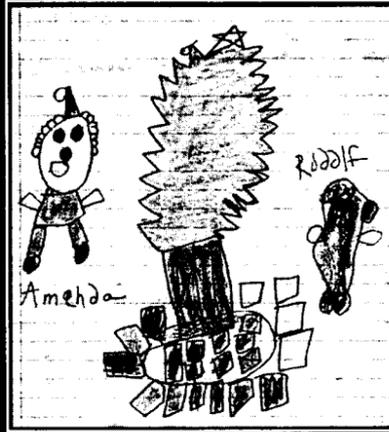
December 22, 1995

BROOKHAVEN NATIONAL LABORATORY

Season's Greetings From BNL Children



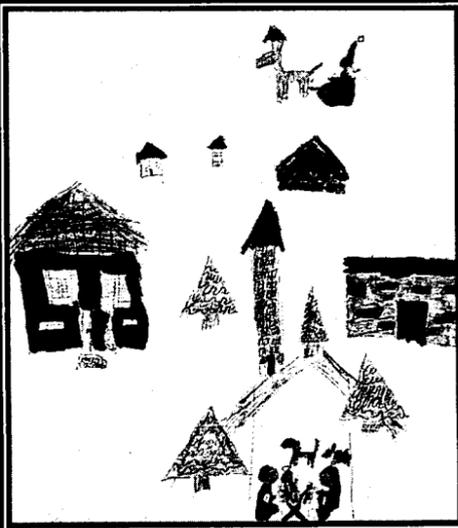
Above: Artist - Daniel Kohut, 8; Parent - Peter Kohut, DAT



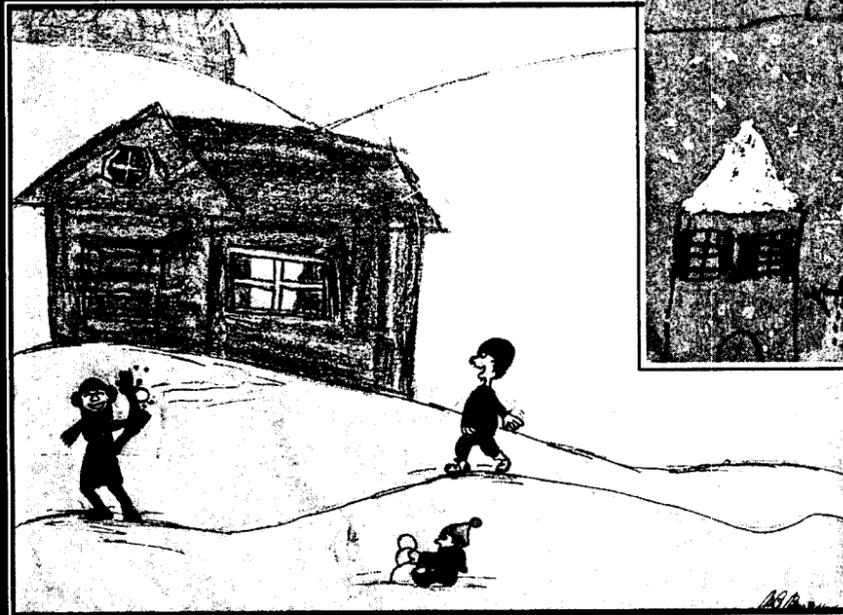
Above: Artist - Amanda Yerry, 6; Parents - Jim Yerry, SEP, and Pam Yerry, Reactor



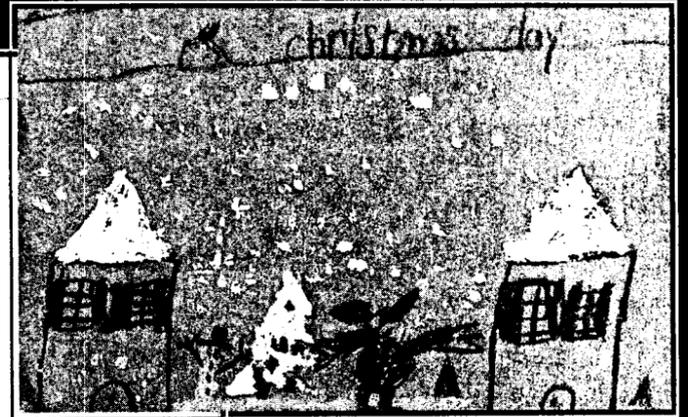
Above: Artist - Manoj Mahajan, 10; Parent - Devinder Mahajan, DAS



Above: Artist - Sarah Kennett, 9; Parent - Bob Kennett, DAT



Above: Artist - Kate Bowerman, 11; Parent - Biays Bowerman, DAT



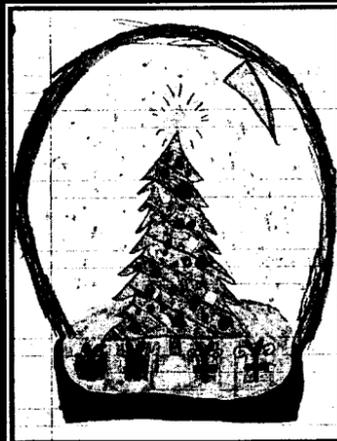
Above: Artist - Yishu Huang, 6; Parent - Haixin Huang, AGS



Right: Artist - Julianne Mosoff, 7; Parent - Dawn Mosoff, OEP



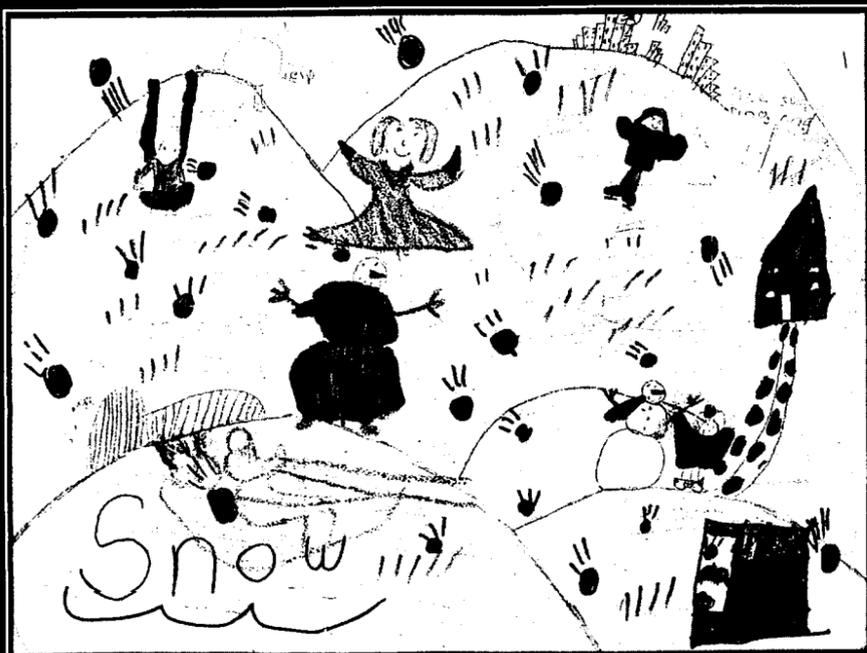
Left: Artist - Brittany Dewey, 6; Parent - Stephen Dewey, Chemistry



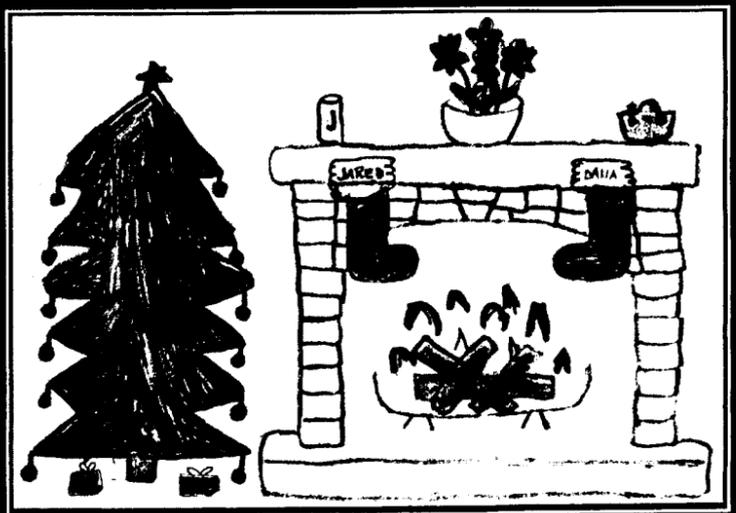
Above: Artist - Tamara Campbell, 9; Parent - Mary Campbell, RHIC



Above: Artist - Jacquelyn Queirolo, 10; Parent - Albert Queirolo, Reactor



Left: Artist - Phalecia Samuels, 8; Parent - DeVonne Turner, Plant Engineering



Right: Artist - Jared Swenson, 7; Parent - Jeff Swenson, Staff Services



VIPs Honored For Service

There were 154 Very Important Persons (VIPs) invited to the 1995 Service Award Reception held in the Brookhaven Center on the evening of December 12. These VIPs included four employees who marked 40 years of Laboratory service during the past calendar year, 26 who realized 35 years at Brookhaven in 1995, another 33 who observed 30th anniversaries, and 20 who completed 25 years at the Lab. Other VIPs included 55 Brookhaven employees who have between 36 and 39 years of service, ten who have been with the Lab between 41 and 44 years, three — Irving Feigenbaum, Garman Harbottle and Seymour Rankowitz — who have attained 46 years of BNL service, two — Andrew Brems and Lewis Friedman — who observed 47th anniversaries; and one — Bernard Manowitz — who has been here throughout the 48 years that the Lab has been in existence.

Photos by Roger Stoutenburgh



Insurance Benefits: New Office Hours

As a part of cost-reduction efforts in the Human Resources Division, the hours for the Insurance Benefits Office in Bldg. 185, will be limited to 8:30 a.m. to 1 p.m., Monday through Thursday, effective January 1, 1996. During those hours employees may request assistance with aspects of their insurance benefits, such as enrollments and coverage changes.

Employees may also contact the following insurance companies directly for assistance with benefits and claims:

- **AUI Medical Plan**, administered by Connecticut General, 1 (800) 431-4949
- **AUI Dental Assistance Plan** administered by Eastern Benefits Systems, Inc., 1 (800) 524-0227
- **CIGNA Dental Health Plan**, 1 (800) 367-1037

Claim forms for the AUI Medical and Dental Plans and for the Health Care and Dependent Care Reimbursement Accounts are available in Bldg. 185, but each claim should be submitted directly to the address indicated on the form.

In case of an emergency, contact Denise DiMeglio, Ext. 2881.

Addled Addresses

- Brookhaven Nat'l Lab Bldg. 902A, Magnet Drive
- Brookhaven National Lab
- Lipton NY 11973
- Brookhaven Industrial (Nat'l) Labs
- Brookhaven National Laboratory
- Brooke H Laboratory
- Luck Heaven Lab

Here & There

Fifteen visitors from the Russian, Ukrainian, Czech Republic and Hungarian Regulatory Body were at BNL September 25-October 9, for a training course on "U.S. Commercial Nuclear Power Fire-Protection Practices," organized by Ken Sullivan of the Department of Advanced Technology's (DAT) Engineering Technology Division.

Designed for individuals who may serve in a nuclear-power reactor regulatory or oversight role, the course

Inside Info

Laura Sbarra was appointed Deputy Head of the Occupational Medicine Clinic (OMC) on October 1. She had been on the Occupational Medicine staff since joining the Lab in 1972 as an industrial medicine physician.

Sbarra headed the clinic, 1979-89, when she opted to work part-time. Since then, she had been a senior Occupational Medicine staff physician, and, said OMC Head **Bryce Breitenstein**, "I appreciate her willingness to assume this additional authority."

After receiving her B.S. in genetics from Cornell University in 1965 and her M.D. from the Medical College of Pennsylvania in 1969, Sbarra interned in internal medicine at Long Island's Meadowbrook Hospital.

Before coming to BNL, she had practiced with the Suffolk County Department of Health and at Mather and St. Charles Hospitals, as well as privately. Sbarra is board-certified in Preventive Medicine (Occupational Medicine).

was sponsored by the U.S. Nuclear Regulatory Commission's (NRC) Agency for International Development-funded Direct Assistance Program, as part of a joint exchange. It was the second of an ongoing series of training programs being conducted by BNL for the NRC.

The participants also visited the Shearon-Harris Nuclear Power Plant in North Carolina, and, at Brookhaven, Chief James Roesler of the BNL Fire/Rescue Group took the participants on a tour of the Lab's Firehouse.

Sullivan was the course's head instructor; other instructors were DAT's Anthony Fresco and Jim Higgins, and consultants Keith Parkinson of Sonalysts, Inc., and Tom Story, of Science Applications International Corporation. DAT's Ann Fort and Sonja Santos provided administrative support.

In Stormy Weather

Listen to:

Station	Area	AM	FM
WALK	Patchogue	1370	97.5
WBAB	Babylon	1440	102.3
WBLI	Patchogue		106.1
WCTO/WGSM	Smithtown	740	94.3
WHFM	Southampton		95.3
WHLI/WKJY	Hempstead	1100	98.3
WLIM	Patchogue	1580	
WLIX	Islip	540	
WLNG	Sag Harbor	1600	92.1
WRCN	Riverhead	1570	103.9
WRIV	Riverhead	1390	

Or call: **344-INFO***

*Dial the letter O, not zero!

Open Workshop On Sewage Plant

On Thursday, January 4, BNL will hold a technical workshop on upgrading the Lab's sewage treatment plant. The workshop will take place in the North Room of the Brookhaven Center, from 2 to 5 p.m.

Consulting engineers, regulatory representatives, environmental scientists and environmentalists are included on the panel that will discuss options for upgrading the plant. Employees and the public are also invited to attend the workshop.

Earlier this year, BNL postponed plans to upgrade the plant, in response to public concerns about the project's impact on the environment.

Under \$8,000 to Go!

With the \$6,437 in pledges that BNL's United Way Fund Drive received since last week, the drive has collected \$82,927 — less than \$8,000 short of its \$90,000 goal.

It's not too late to help change that: The drive will not end until the goal is reached. And once you return your pledge card, you'll be automatically entered in the remaining drawings for three \$50 gift certificates to local restaurants and for the grand prize — a dinner theater weekend for two in New York City.

For more information, contact BNL Fund Drive Chair Michelle Cummings, Ext. 2077; Co-Chair Pete Esposito, Ext. 2879; or your group's United Way campaign captain.

On the Cover: Thanks, Young Artists!

To all those children of BNL employees who responded to our request for artwork for this holiday issue of the Brookhaven Bulletin: Thank you! There were many excellent drawings, and we were so sorry not to have room to run them all. To show our appreciation for all your efforts, we have a chocolate treat for each of you. Please have your parent stop by the Bulletin office in Bldg. 134 to pick it up for you. Happy Holidays!

In addition to the children whose drawings are reproduced here and on the front page, our young artists (and their BNL parents, in parentheses) are:

• **Age 6** — Lisa Callister (Robert Callister, PE, & Roseann Callister, DCP) Marisa Campbell (Mary Campbell, RHIC), Christopher Caruso (Michael Caruso, NSLS), Amanda Howe, (Bob Howe, DO), Stephanie Hu (Eugene Hu, Reactor), Lauren Lettieri (Beth and Lawrence Lettieri, both SEP), Maneka Mahajan (Devinder Mahajan, DAS), Dinell Samuels (DeVonne Turner, PE), Andrew Stiegler (Lori Bower, SEP), Derek Trabocchi (Charles Trabocchi, AGS), Rebecca Trojanowski & Tyler Trojanowski (Thomas Trojanowski, PE).

• **Age 7** — Luis Brennan (Mike Brennan, AGS), Margaret Brown (William Brown, DAT), Austin Eckhoff (Steve Eckhoff, PE), Jeffrey Howe, (Bob Howe, DO), Lauren McIntyre (Gary McIntyre, RHIC, & Kathleen McIntyre, SEP).

• **Age 8** — Kimberly Anne Bergh (Curt Bergh, CCD), Alex Bowerman (Blays Bowerman, DAT), Nicholas Callister, (Robert Callister, PE, & Roseann Callister, DCP), Jason Lettieri (Beth & Lawrence Lettieri, both SEP), Rachel O'Donnell (Michael O'Donnell, RHIC, and Maureen O'Donnell, ISD).

• **Age 9** — Christopher Samuels (DeVonne Turner, PE).

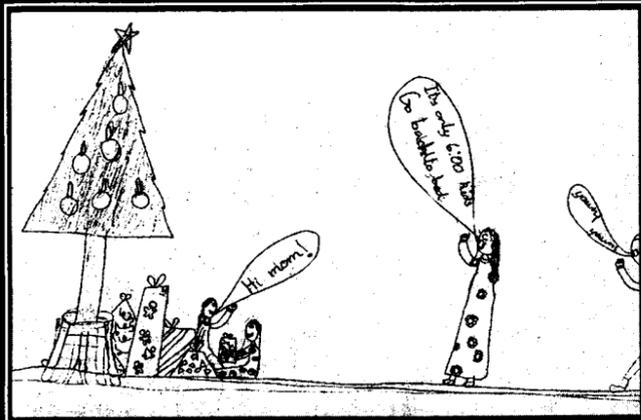
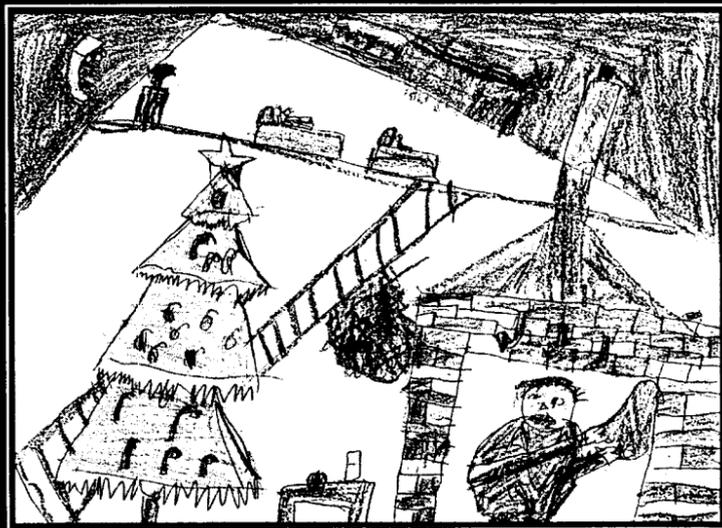
• **Age 10** — Dana Swenson (Jeff Swenson, SSD).

• **Age 11** — Lisa Bergh (Curt Bergh, CCD), Eddie Grove (Edward Grove, DAT).

Above left: Artist — Gavin McIntyre, 10; parents — Gary McIntyre, RHIC, and Kathleen McIntyre, SEP

Above right: Artist — Keith Fung, 7; parent — K.H. Fung, DAS

Left: Artist — Allison Rowe, 8; parents — Michael Rowe, DAS, and Mona Rowe, DO



Macintosh Users

The BNL Macintosh Users' Group will next meet on Thursday, January 4, from 10 a.m. to noon, in the second floor CCD Seminar Room, Bldg. 515.

CCD's Macintosh support policy and how it applies to users' needs will be discussed. Recent changes of equipment in the CCD graphics room and new developments in the use of PPP dial-in access on Macs are also on the agenda.

Atlantic City Trip: Last One Until Spring

For its last trip to Atlantic City until next spring, BERA is sponsoring a one-day bus excursion to the Claridge Hotel and Casino on the Boardwalk on Saturday, January 13. Though the initial cost is \$22 per person, the Claridge will give a \$13 coin return.

The bus will leave the Brookhaven Center promptly at 8 a.m. and, after a seven-hour stay in Atlantic City, return by approximately 11 p.m. If requested, passengers may be picked up and dropped off at the park and ride at LIE exit 63.

Tickets are now on sale at the BERA Sales Office, Berkner Hall, weekdays from 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Survey Update

The employee survey about the Brookhaven Bulletin generated a large response, and the Bulletin staff appreciates your thoughtful comments.

It will take a few weeks to tally your replies, then decide how we might implement your suggestions. Once that is done, we will discuss the survey results and our plans in an upcoming Bulletin article.

New Phone System: What's Coming Up?

Phone-System Training

The next training sessions on how to use the new Siemens Rolm Communications (SRC), Inc., telephone system will be held from noon to 1 p.m. in Berkner Hall after the New Year: Wednesday, January 10 and 17, and Thursday, January 25, 1996.

For those who can't make a class, a training video is available: Borrow it from the Research Library, Bldg. 477, by calling the Circulation Desk, Ext. 3483; or purchase a copy by calling BNL Video, Ext. 3680.

Phones to Change Starting Dec. 29

In the order listed, the following buildings, which are served by node site 4 near Bldg. 725 or node site 2 in Bldg. 703, will be switched to the new SRC telephone system beginning next Friday, December 29, through Friday, January 5, 1996, the third and fourth weeks of the changeover. Those to have digital service are listed in bold; those receiving with analog service are in plain text.

Date	Bldg.
Fri., Dec. 29	750 , 750 annex, 751
Sat., Dec. 30	750 , 750 annex, 751 continued if required
Tue., Jan. 2	197, 129
Wed., Jan. 3	701, 703, 901, 901A, 901W
Thu., Jan. 4	704, 705, 707, 715, 802, 801
Fri., Jan. 5	906, 907, 908, 909

Arrivals & Departures

Arrivals
James K. O'Malley.....Plant Eng.

Departures
This list includes all employees who have terminated from the Lab, including retirees:
Caroline Ferris.....Biology
Satoru Fujiwara.....Biology
Michael J. Loftus.....RHIC
Donna M. Ormandy.....Plant Eng.
Hong Wang.....Adv. Tech.

Service Awards

The following employees celebrate their BNL service anniversaries during December:

35 Years
Paul Bezler.....Adv. Tech.
Reginald Ellington.....Plant Eng.
Robert C. Kehl.....RHIC
William A. Love.....Physics

20 Years
James E. Bullis Jr.....Medical
Mei Han G. Chou.....Chemistry
Nicholas F. Gmur.....NSLS
James G. Guppy.....Adv. Tech.
Nancy Nelson.....Adv. Tech.
Richard J. Spellman.....Cen. Shops

10 Years
Malcolm S. Capel.....Biology
Sheryl E. Carey.....Saf. & Env. Prot.
Diane C. Carlson.....Occ. Med. Clinic
Hossein P. Nourbakhsh.....Adv. Tech.
Mark W. Ruckman.....RHIC
Peter P. Sobik.....Plant Eng.
Eng-Kie Souw.....Adv. Tech.
Nicholaos Tsoupas.....RHIC
James T. Veligdan.....Adv. Tech.

BROOKHAVEN BULLETIN

Published weekly by the Public Affairs Office for the employees of BROOKHAVEN NATIONAL LABORATORY

ANITA COHEN, Editor
MARSHA BELFORD, Assistant Editor

As 1995 draws to a close, the Editor and editorial staff of the Brookhaven Bulletin gratefully acknowledge the indispensable contributions of the following people:

- Public Affairs Office**
Anne Baittinger, Diane Greenberg, Mona Rowe, Liz Seubert, Janet Sillas, Kara Villamil
- Photography & Graphic Arts Division**
Dolores Janes, Terry Jones, John Laurie
- Composition**
Leo J. Casey, Cyndy Chisare, Michele Hale, Dolores Knighton
- Computer Graphics**
Rick Backofen, Lily Liu
- Copy Service**
Philip Allen, Kevin Collins, Eva Esposito, Jerry Gaeta, Joe Hanson, Kelly Backofen, Joe Perry, Tina Walsh
- Offset Printing**
Andy Brems, Kevin Hester, Neal Jackson, Jeff Knighton, Leon Lawrence, Bruce Style
- Photography**
Stan Cherouski, Maj Britt Hansen, Michael Herbert, Peter Horton, Howie Jones, Bill Marin, Alex Reben, Joe Rubino, Roger Stoutenburgh
- Graphic Design**
Theresa Esposito, Kathy Foy, Alan Schmidtchen, Pat Yalden
- Illustration**
Judy Otto
- Staff Services Division, BNL Mail Room**
Selestine Brown, Jean Bunselmeyer, Kirk Dreimann, Thomas Johnson, Esther Larios, Frederick Malone, Louvania Minter, Frank Norton, Lucinda Scott, Veronica Varlack
- Human Resources Division, Personnel Records**
Louisa Barone, Bonnie Miller, Darlene Peragine

Bldg. 134, P.O. Box 5000
Upton NY 11973-5000
Tel. (516) 282-2345; Fax (516) 282-3368

24,000+ Kids Enjoy Museum Programs

A record number of students in grades kindergarten through 12 — almost 25,000 — participated in the museum programs offered by the Public Affairs Office (PAO) in fiscal year 1995.

Janet Tempel, PAO's Supervisor of Museum Programs, explained why this outreach is so important: "Science isn't happening in the elementary school classroom," she said. "Teachers who are taking advantage of the museum's hands-on science programs confirm the need for experiences like these that are firmly grounded in science and very exciting for the youngsters."

Programs specifically geared to students included: Discovery Tours (7,041 participants, grades K-3), in which students come to the Lab's Science Museum to experiment hands-on; Discovery to Go (607 children, grades K-3), an outreach program that goes to the local library; and the annual Elementary School Science Fair (950 entries, grades K-6, and 550 visitors), funded by the BNL's Office of Educational Programs.

Other school programs include: Investigations in Science (4,946 children grades 4-6), which involves experiments with electricity; general student tours of BNL (2,729 students, grades 7-12); Magnets to Go (7,755 youngsters, grades 5 and 6), which brings magnetic moments to the classroom; and the annual Model Bridge Building Contest, where budding engineers see how well their basswood bridges hold up under stress (300 high school students and 200 visitors).

Children in grades K-12 were also among the participants in the Lab's Summer Sundays, which drew 4,365 people to BNL over eight days, as well as other fairs, festivals and outreach programs that attracted 1,050 people of all ages.

Adding to the year's grand total of 33,456 visitors were the 1,857 college students and professionals who participated in college facility tours; 30 teachers and museum professionals who came for seminars; and 1,076 other adults who came on Lab tours as members of special interest groups.

Holiday Notes

For the Christmas holiday, the Lab will be closed for half a day on Friday, December 22, and a full day on Monday, December 25. For New Year's Day, the Lab will be closed on Monday, January 1. The following schedules will be in effect:

• Brookhaven Bulletin — There will be no Bulletin next week; the next issue will be published on Friday, January 5. The classified ad deadline for that issue is noon on Wednesday, December 27. The deadline for club notices and other submittals is noon on Friday, December 29.

Please note: Effective with the January 12 issue, the Bulletin's regular deadlines will change so that classified ads will be due by noon on Friday, and club notices and other submittals will be due by 10 a.m. on Monday, all for publication the following Friday.

• Credit Union — The Teachers Federal Credit Union will be open for normal hours on Friday, December 22, but will be closed on Mondays, December 25 and January 1. The automatic teller machine in the foyer of Berkner Hall will be open throughout the holidays.

• Food Services — The Cafeteria will offer only snack-bar service on Friday, December 22, until 1 p.m., and will be closed Christmas and New Year's Days. This weekend and next weekend, the Cafeteria will offer snack-bar service both Saturday and Sunday, from 9 a.m. to 2 p.m. The Brookhaven Center will be closed on Friday, December 22; Sunday, December 24, and Mondays, December 25 and January 1. The shopping car will operate as usual on Saturdays, December 23 & 30; and the vended food service in Bldg. 912 will operate continuously.

• Gym & Pool — The swimming pool and gymnasium will be closed from after lunch-time hours Friday, December 22, through Christmas Day, and again from Saturday, December 30, through New Year's Day. Regular hours will resume on Tuesday, January 2, which is also the start of a new, three-month pool season.

• Recreation Building — The Recreation Building in the apartment area will be closed through Monday, January 1.

• Research Library — The library will be closed after noon on Friday, December 22, and all day Saturday through Monday, December 23-25.

• Safety Shoes & Glasses — On Wednesday, December 27, the Safety Glasses Office in Bldg. 88 will be closed. The Safety Shoe Office also located in Bldg. 88 will be closed from Tuesday, December 26, through Tuesday, January 2. If you have any questions, call Ext. 2300.

• U.S. Post Office — The Upton Branch of the U.S. Postal Service will be open all day Friday, December 22, and closed on Mondays, December 25 and January 1.

Volleyball

Standings as of December 18

Open League	League I
Pass, Set & Crush 24-6	Bikers 'n Spikers 20-7
Monday Maulers 26-7	Rude Dogs 19-8
Far Side 14-19	Scared Hitless 16-14
Spikers 12-21	No Names 14-16
Bud Hitters 5-28	Underdogs 3-27

League II	League III
Spiked Jello 22-5	Silver Bullets 20-4
Safe Sets 19-8	Upton Ups 15-6
Monday Nite Live! 17-10	Joy of Sets 14-7
Fossils 16-11	Just 4 Fun 13-8
Nuts & Bolts 13-14	Harlem Knights 12-9
Jolly Veggies 11-16	High Volley'em 8-13
Volley Folly 7-20	DO-DAT 7-14
Night Court 3-24	New Comers 5-16
	OER 2-19

Bowling

Purple & White League

P. Wynkoop 253, G. Mehl 217/205/195/617 scratch series, Doug Fisher 210, D. Riley 207, R. Wiseman 198/189/181, E. Meier 195/187, K. Conkling 189, Diana Fisher 187, Don King 187, R. Larsen 186, M. Addressi 185, N. Fewell 183, J. Addressi 181, A. Pinelli 181, T. Mehl 180/177, P. Fewell 176, M. Picinich 170.

Red & Green League

A. Warkentien 257/607 scratch series, E. Larsen 256/214/204/674 scratch, K. Koebel 247/616 scratch, R. Wiseman 243/213/630 scratch, R. Raynis 226/213/622 scratch, R. Prwivo 220/206/616 scratch, G. Weresnick 218, R. Eggert 213/201, W. Powell 210, H. Arnesen 208, T. Prach 207, R. Mulderig 203, J. Griffin 202, B. Kolmer 201, D. Fisher 200.

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 Human Resources Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Human Resources, 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.

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

Current job openings can also be accessed via the BNL Home Page on the World Wide Web. Outside users should open "http://www.bnl.gov/bnl.html", then select "Scientific Personnel Office" for scientific staff openings or "Employment Opportunities" or "BNL Human Resources Division" for all other vacancies.

SCIENTIFIC RECRUITMENT - Doctorate usually required. Candidates may apply directly to the department representative named.

POSTDOCTORAL RESEARCH ASSOCIATE - With experience in crystallographic structure determination. Experience with protein expression, purification and crystallization is highly desirable. The research program is concerned with determining structures of major outer-surface proteins from the tick-borne Lyme disease spirochete *Borrelia burgdorferi*, by x-ray crystallography. Contact: Catherine Lawson, Biology Department.

POSTDOCTORAL RESEARCH ASSOCIATE - Trained in electrochemistry, with experience in electrocatalysis. The research program is concerned with the development of the *in situ* Fourier Transform Infrared (FTIR) methodology in synthesis and characterization of new metal-oxide metal catalysts for electrooxidation of methanol and FTIR of reaction intermediates and products on selected surfaces. Contact: R. Adzic, Department of Applied Science.

SCIENTIST - Trained in physical sciences or engineering, to participate in the development of a far-infrared research facility based on the utilization of the unprecedented brightness of synchrotron radiation and its unique pulsed structure. Candidates should have expertise in the far-infrared, and experience in infrared research with synchrotron radiation, infrared beam-line design and construction, Fourier-transform methods, fast-response pump-probe measurements, and microscopy. Candidates should be prepared to develop and operate a full program for users of the National Synchrotron Light Source. Contact: P. Siddons, National Synchrotron Light Source Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 3827. PROGRAMMING POSITION - (term appointment) Requires an AAS, BS desirable, and several years' relevant experience. Experience should include UNIX-system administration and extensive database development and management. Use of optical scanning technology and associated hardware/software is necessary. Project involves development of UNIX-based, network-accessed inventory, catalog, archive and retrieval system for historical records. Safety & Environmental Protection Division.

NS 3826. ENGINEERING POSITION - Requires a BS in chemistry, extensive experience in the radiological analysis of environmental samples and several years' supervisory experience. Will be responsible for the operation of the Sampling/Analysis Group and overall coordination of S&EP's analytical program. Familiarity with EPA/DOE methodology and experience in a production environment necessary, as are excellent communication skills and a strong customer focus. Safety & Environmental Protection Division.

DD 6176. TECHNICAL POSITION - Requires experience in the operation and maintenance of large-capacity process water-cooling systems. This includes pumps, cooling towers, heat exchangers, mixed-bed demineralizers, and pneumatic and electric controls. Skills in soldering and pipe fitting for hydraulic and pneumatic systems also required. Alternating Gradient Synchrotron Department.

NS 2094. ENGINEERING POSITION - (term appointment) Requires an MSEE with at least five years' relevant experience, familiarity with workstation-based design tools (Viewlogic preferred), schematic capture, the design and simulation of programmable parts using high-level languages and board-level routing. Will oversee the routing, fabrication, population and testing of printed-circuit boards on two large RHIC experimental collaborations. Physics Department.

Motor Vehicles & Supplies

94 CHEVY S10 PICKUP - 4-cyl., 5-spd., 27k mi., mint, many extras. 727-3863.

91 MERCURY CAPRI - conv., o/s, p/b, am/fm Benzi, silver, 77k mi., well maint., \$5,000 Rob, 476-1410.

90 HONDA CIVIC Si - 5-spd. h/b, sunroof, white/black, 73k mi., clean, excel. cond. & maint. record, \$5,995. Ext. 5195 or 722-5937.

89 CHEVY CORSICA - 4-dr., 4-cyl., ac, a/t, high mi., excel. cond., \$1,900. Gabriel, Ext. 2707 or 341-1087.



Happy Holidays

90 PLYMOUTH VOYAGER LE - 7-pass., ac, all power, cruise, roof racks, white wood-tone, 77k mi., mint cond. Mike, Ext. 5972.

89 HONDA CRX - 5-spd., silver, ac, 2-seater, 90k mi., excel., \$3,500. John, Ext. 7671 or 765-1299.

88 FORD FESTIVA - 35 mpg, m/t, good station/student car, \$1,500 neg. Ext. 5262.

86 NISSAN SENTRA - a/t, 4-dr., stereo, new parts, clean, excel. cond., \$2,200. Ext. 7897 or 632-5163.

85 VW JETTA GL - v.g. cond., must see, \$1,850 neg.; '81 Charger, v.g. cond., \$400 reg. Marco, 924-0960.

85 NISSAN 4X4 PICKUP - many extras, excel. cond., must sell. Don, Ext. 5329 or 422-7415.

83 TOYOTA TERCEL - gold, 4-spd., new battery, excel. cond., \$900 neg. Steve, Ext. 7862.

82 RELIANT - running, 4-cyl., ac, a/t, new trans., comp. exhaust, converter, brakes, tune-up, wires, needs batt., alt., tires, brake line, \$200 neg. Ext. 5675.

79 CADILLAC SEVILLE - many extras, mint. Ext. 2351.

79 BLAZER 4x4 - full-size, 350 V-8, a/t, 4" lift, tint, body good, eng. good. Rich, Ext. 4823.

76 VOLVO 242DL - 4-spd., new battery & front struts, runs well, \$900 neg. Steve, Ext. 3018 or 369-5181.

TIRES - Firestone, Firehawk FTX, P195/50R15, 600 mi., orig. \$95, now \$40. Vic, Ext. 7016 or 543-7674.

PARTS - 302 motor, headers trans., rear GT 40 heads, wire spoke reverse rims, 5-lug Dodge Ford 12.5 rim tires. Edward, 661-9155.

Boats & Marine Supplies

35' CHRIS CRAFT COMMANDER - 13'6" beam, twin 327 i.b., FWC, all fg, 2 bdrms., dual station, \$30,000 or best offer. Joe, Ext. 4826 or 821-3762.

Furnishings & Appliances

CABINETS - microfiche file, Steelmaster for 8"x5" cards, 52"x26"x21", \$50. Ext. 7108.

CHAIRS - Ethan Allen, 1 yr. old, Windsor-style, solid cherry, 4 side, orig. \$199 ea., now \$100 ea.; 2 black arm, orig. \$249 ea., now \$150 ea. Eric, Ext. 5875.

DESK - rolltop, 60" wide, oak, 2 locking file drawers, \$500 neg. Joe, Ext. 4826 or 821-3762.

DRESSER - antique, oak, small, 3-drawers, half stripped, \$75; water bed, single, \$70; 5-shelf étagère, \$25. Sue, Ext. 7235 or 399-7997.

FREEZER - G.E., 18 cu. ft., w/built-in lock, excel. cond., must sell, \$300 neg. Ext. 5740 or 744-8386.

LOVE SEAT - 58", \$25; fireplace enclosure w/screen & glass doors, good cond., \$20. Paul, Ext. 4156.

REFRIGERATOR - Gibson, 16.4 cu. ft., frost-free, \$100. Steve, Ext. 7862.

REFRIGERATOR - 2.5 cu. ft., good for dorm room, asking \$60; girl's desk lamp, pink & white, w/night light. Tom, Ext. 7287 or 744-4535.

WALL UNIT - 3 pieces, walnut, ore w/drop down dr., all w/2-dr. lower cabinets, ask. \$100 Janine, 286-7583.

WASHING MACHINE - apt.-size, Sanyo portable, 1 1/2 yr. old, excel. cond., orig. \$360, now \$150, delivered. 929-6571 after 5:30 p.m.

Tools, House & Garden

GARDEN TOOLS - 2 shovels, 2 rakes, pitchfork, hedge clippers, saws, garden hose & more. MajBritt, 821-8343.

SCOTCH PINE TREE - Christmas, 6 1/2', artificial, \$25; fireplace doors, custom-made, 48", \$50 or best offer. children's 20" bike. Steve, Ext. 3018 or 369-5181.

STOVE - coal/wood, like new, holds 100 lbs. nut or stove coal, lasts 3 days, \$300 neg. Mike, Ext. 7594.

Sports, Hobbies & Pets

CAMERA - equipment, Nikon 6006AF; Nikon AT-80-200 F/2.8 EDIF w/2 filters, \$950. Michael, 369-0889.

CLARINET - Alpine, student, never used this season, asking \$175. Tom, Ext. 7287 or 744-4535.

GOLF CLUBS - 3-SW Ram Laser Fx, w/head covers, mint cond., plus 3 & 4 wood, bag w/stand, \$300. Ernie, Ext. 2677.

KARATE - fighting gear, never used, \$50; stair stopper, \$30; exercise bike, \$25; rower, \$10. Ext. 2539.

ORGAN - Hammond, recently serviced & tuned, excel. cond., \$500. Van, Ext. 7039 or 289-8428.

ORGAN - Yamaha console, rhythm, full-pedal, oak finish, asking \$800. John, Ext. 7340 or 732-2702.

PET CARRIER - Vari-Kennel 200, new, \$25; 30-gal. fish tank, like new, \$40. Sue, Ext. 7235 or 399-7997 after 5 p.m.

PHOTOGRAPHY EQUIPMENT - photo light box, bulk leaders for 35mm, 8"x10" plastic trays, timer, beakers. MajBritt, 821-8343.

PIANO - \$200; washer, \$50, couch, 3 set, twin size bed, TV stand, china cabinet. Lynn, Ext. 3813.

PLAYER PIANO - Wurlitzer w/rolls, circa 1920s, needs work, neg. Joe, Ext. 4826 or 821-3762.

POOL TABLE - 7', slate surface, oak base, leather pockets, made by Olhausen, fully equipped, excel. cond., \$1,250. S. Aronson, Ext. 2051.

SKI FOR LIFE - Killington Mtn. Ext. 3334 or 744-2404.

Audio, Video & Computer

COPY-FAX MACHINE - Fujitsu Dex Express 7800, plain paper, mint cond., \$250 firm. Ext. 4938.

FAX MACHINE - Panasonic KX-F90, automatic paper cutter, answering system, manual, 6 paper rolls, \$150. Peter, Ext. 4004.

TV - 19", color, Hitachi, excel. picture, \$50. Art, Ext. 3766.

WORD PROCESSOR - typewriter, Brother WP-1400-D, 11-line LCD, spell-grammar check, extra print cartridges, \$75. Bob, Ext. 2351.

Miscellaneous

APPAREL - new, international, unisex denimwear, swiss-made motorized manicure/pedicure sets, imported wool berets. Gene, 878-8275.

BARBIES - 2, 1995, Happy Holiday edition, \$75/ea. 929-1059.

BLACKBOARD - director's; white board w/doors; cork board, flip charts, exterior simulated oak, best offer over \$50. Vic, Ext. 7016.

COAT - full length, fox, size 14-16, excel. cond., \$375. 473-5063.

COAT - fur, black Persian lamb, size 16, \$100; exercise bike, good cond., \$15. 924-3236.

COAT - racoon, custom-made, ankle length, size 7, \$800. 654-0812.

HUMMEL PLATES - '78 & '79, in orig. boxes; large Christmas cactus, \$10; adult's bike helmet, new, \$15. Joe, Ext. 2898.

RING - diamond engagement, 1.13 carats, color grade I, clarity grade VS2. GIA certified, full papers, platinum setting, \$4,500 neg. TJ, 744-3308.

TICKETS - 2, *Meistersinger*, 12/21, Metropolitan opera, dress circle, free bus, orig. \$60/ea., now \$40. 744-5996.

Free

DOUBLE-HUNG WINDOW - w/storm & screen attached. Sue, Ext. 7235 or 399-7997 after 5 p.m.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, religion, sex, age, national origin, disability or veteran status of the applicant.

For Rent

MANORVILLE - 2-bdrm. townhouse, 1 1/2 baths, gar., pond view, gas, d/w, w/d, fp, skylights, cathedral ceiling, \$1,125 + util. Eric, Ext. 5875.

MASTIC - 2-bdrm. apt., w/w, priv. ent., prof., single, nonsmoker, no pets, ref., 1 mo. sec., \$675, w/cable. Ext. 4938.

MILLER PLACE - studio apt., quiet, prof., nonsmoker. Ext. 5740 or 744-8386.

MILLER PLACE - 1-bdrm. apt., l/r, kit., spare room, priv. ent., fully furn. Ext. 5834.

RONKONKOMA - 1-bdrm. apt., eik, l/r, bath, priv. ent., w/w, cable, nonsmoker, no pets, \$650/all, mo. sec. 471-6416.

SHIRLEY - furn. rm. avail., share clean, quiet, comfortable home, walk to library, shopping, close to beach, 10 min to Lab, ref., sec. 399-1237.

YAPHANK - 2-bdrm. townhouse, gar., fp, fin. bsmt., pool, tennis, 5 min. to Lab, \$950/mo. + util. Ann, Ext. 7611 or 862-2467.

KEY WEST, FL - April 13-27, 1-2 wk. timeshare, sleeps 2-6, priv. beach, pool, kit., w/d, gym, hot tub, marina boat rentals, in old town. Sheryl, Ext. 7716.

HILTON HEAD, SC - condo, sleeps 6, fully furn., 2 bdrms., 2 baths, tennis, beach, golf nearby, through Dec., \$350/week. Guy, Ext. 3147 or 689-5378.

MT. HOLLY, VERMONT - 2 bdrms., A-frame, l/r, kit. 1 bath, 10 min. to Okeno, 25 min. to Killington, avail. Dec.-April, incl. holidays. Tom, Ext. 5899.

WARDSBORO, VT - new ski house, avail. Feb. vac. & some wknds., sleeps 8, Jacuzzi, 2 baths, less than 10 mi. to Mt. Snow or Stratton, 20 mi. to Okeno, reas. M. Pandorf, 360-3020.

For Sale

BELLPORT VILLAGE - 2 bdrms., fenced, detach. gar., screened porch, ag pool w/deck, lg. prop., move-in cond., \$115,000. Ext. 7537 or 286-0640 after 6 p.m.

CALVERTON - 2-bdrm. townhouse, l/r, d/r, kit., 1 1/2 baths, f/p, deck, Andersens, new range, washer, w/w, assumable mortgage, \$120/mo. Mike, Ext. 3434.

CUTCHOGUE - 3-bdrms., 2 baths, att. gar., corner lot, full bsmt., 11 yrs. old, new deep well, Mattituck SD, \$119,000. Dennis, Ext. 4028 or 323-3532.

HAMPTONS - 1-acre lots, new greenbelted subdivision, underground util., cul-de-sac, golf, bay, park, trails nearby, easy access to LIE, \$35,000. 369-2889.

N. SHIRLEY - 3-bdrm. ranch, 2 baths, lg. eik, l/r w/ cathedral ceilings, alarm, full bsmt., gar., fenced 1/2 acre, 2 lrg. decks, pool. John, 395-5922.

RIDGE - cozy, 2 bdrms., eik, full bath, l/r, d/r, deck, water view, deeded lake rights, \$79,500. 929-5795.

ROCKY POINT - 2-story chalet, 1.23 acres, very priv., 22 Prince Rd., \$169,000. Ruth Ann Lutz, Ext. 7774 or 929-6235.

SHIRLEY - 2 bdrms., gar., new appl., city water, new burner, 1/2 acre, \$99,000. Ext. 7861.

SHOREHAM - 3-bdrm. ranch, 100'x150', playroom, l/r, d/r, eik, w/w, 1 1/2 baths, fp in den, 2 1/2 car gar., 23'x32', SWRS, N. of 25A, move-in cond., 821-9547.

SOUTHAMPTON - 1-acre wooded building lot, on priv. cul-de-sac. 325-0447 after 5 p.m.

WADING RIVER - 3-bdrm. Col., 2 1/2 baths, 2-car gar., custom kit., gazebo, shed, lpg. deck, Jennair, steam bath, satellite dish, SWRS, 1.1 acre, \$199,900. 929-8323.

WADING RIVER - year-round or summer cottages, 2 bdrms., bsmt., double lot, dead end, city water, fenced, new windows, storage shed, near water, beach rights, \$118,500. Ken, 929-4710.

WADING RIVER - 3 bdrms., l/r w/ fp, eik, 1 1/2 baths, fin. bsmt., 2-car gar., all appl., ceiling fans, deck, steps to priv. beach, priv. comm., \$154,000. Hugo, 929-8642.

YAPHANK - 2-bdrm. ranch, porch, gar./workshop, fenced, small barn, 1 acre, house country, trail behind property, \$2,800 taxes, \$114,000. 924-0705.

PORT CHARLOTTE, FL - 1/4-acre bldg. lot, developed neighborhood, ready to build, \$90,000. 929-8323.

NORTH CAROLINA - 1.13 wooded acres, waterfront community, pool, club house, marina, 35' boat slip on the Pamlico River, off Inter-coastal waterway, \$36,000. Ken, 281-5565.

N. TOPSAIL SHORES, NC - 1-bdrm. beach villa, sleeps 6, 1 block to ocean, swimming, boating, fishing, golf, vacation or retire, fully furn., mint cond., move right in, \$40,000 neg. Ext. 5156.

Wanted

CB RADIOS - for Boy Scout troop, also old refig., we will pick up. Garry, Ext. 5289.

CARPENTER - to replace fence & deck. Bob, Ext. 7225.

COMPUTER CPU - 386/486 pref., w/HD, 3 1/2 & 5 1/4 drives. Kara, Ext. 5658.

MUSTANG - early 60s, stick shift. 929-6748.

COMPUTER GAMES - for Macintosh SE, system 6.0.8, 1.4 meg avail. Mike,