BROOKHAVEN BULLETIN
Vol. 35 - No. 42 October 30, 1981
BROOKHAVEN NATIONAL LABORATORY

Doug Humphrey

The fifteen-foot prototype large aperture cable magnet is given a final check before being returned to the dewar for recooling to ISABELLE operating temperatures. Looking on are (from left) Bob Kehl, head of the ISABELLE Magnet Assembly Group, and mechanical engineer Carl Goodzeit.

LM-1 Is A-OK!

Any doubts as to the remarkable nature of the Palmer magnet were laid to rest last Friday evening, October 23, when testing of the first full-size dipole began. Like its two five-foot predecessors, the fifteen-foot, large aperture superconducting cable magnet required almost no training to reach its short sample limit. Dubbed LM-1 — for long magnet number one — it attained a field of 5.255 tesla (T) on its first quench.

Testing at temperatures of 4.5° K continued through the night. After each quench, current was reapplied to see at what point the magnet would again turn itself off. LM-1 exhibited a slight initial search for its own level (see chart), then settled at approximately 5.3 T, well above the ISABELLE design field of 5 T. Physicist Bob Palmer, who is credited with the magnet's original design and who now heads the ISABELLE Magnet Division, explained that "there are very, very large forces involved here. While there may be some settling, it generally doesn't affect anything and you don't worry about it."

The intensity of the forces coming from the fifteen-foot sdipole did, however, have one unforeseen effect. "The magnetic field got so high," said Carl Goodzeit, mechanical engineer with the Magnet Division, "that the stray field caused the magnet to swing to one side in the dewar [the device in which the magnet is cooled to superconducting temperatures]. To avoid damaging the dewar, we decided to take the magnet out and add a wooden support before completing the tests."

Since it takes approximately 30 hours to cool a magnet, tests were not resumed until Tuesday night when, with the support added, the magnet was recooled to even lower temperatures than before. At the ISABELLE operating temperature of 3.8° K, LM-1 again behaved as expected, easily reaching 5.7 T on its first quench, then leveling off at 5.85 T.

This success did not surprise deputy director Nicholas Samios. "We were convinced that it could work, since the first two magnets worked so magnificently," he said. "It was very comforting that the first full-size magnet also performed in such an admirable manner."

Doug Humphrey

Bob Palmer (left) with Nicholas Samios

Right now, testing is focused on quench protection. The magnet's protective circuits have been removed and deliberate attempts are underway to make the magnet burn itself out. "We want to learn the maximum amount about the quenching procedure in this magnet," Palmer said, "in order to make sure future magnets are fully protected against self-destruction."

LM-1 is the first of three planned pre-production fifteen-foot magnets. "We already have the coils for the second long magnet," Palmer said. "When this one is burned out, we'll simply replace the coils and test it again." With actual magnet production expected to start in the spring, the third prototype will feature less custom machining, especially of the iron laminations, and will use production cable. — Anita Cohen

Testing . . . 1, 2, 3

The ISABELLE Magnet Testing Group, like everyone else involved in the achievement of the full-sized Palmer magnet, is thrilled with its performance. But Klaus Jaeger, the group's associate section head recalls that his group has been thrilled since July 27, when the first five-foot prototype performed beyond anyone's expectations.

"It gave us a tremendous lift," said Jaeger, who has worked with superconducting magnets for more than eleven years. "The Palmer magnet is incredible. I believe it will become a national standard — that's how good it is."

The group is pleased that this magnet was chosen as the ISABELLE standard. Due to a less crowded testing schedule, the group now has the previously uknown luxury of time for R&D.

Research and development is critical to the Magnet Testing Group which, in addition to conducting tests, must design and build any equipment needed to perform them. To do so, Jaeger and section head Rod Engelmann work with a talented group of physicists, technicians and specialists.

Once the cable magnets are in full production, the group will have to test one a day. Currently, each magnet is cooled for 30 hours in one of the two dewars in Bldg. 902, which houses all the group's testing facilities. Then it is subjected to a series of tests taking about six days to complete. But, says Jaeger, "This time frame relates strictly to R&D. In production, we'll know exactly what we have to look at and we won't have to do all the tests we do now."

Testing time will also be cut by the use of new cryogenic equipment. After a magnet quenches, it takes about 45 minutes to refill the present dewars with liquid helium. Production dewars now in development will use forced-flow gas and the magnet could be ready to go again in 15 to 20 minutes. "With the Palmer magnet," Jaeger said, "one will need only a handful of quenches to make sure everything works properly. With five gas dewars lined up, we can easily finalize test results on the average of one magnet a day."

Data collection will be completely automated. As testing proceeds, results will be recorded on discs, then immediately converted to magnetic tape for analysis in the CDC computer. Within one week, the final report on any magnet will be complete, including pictures and graphs.

Physicists John Herrera and Erik

(Continued on page 2)

Not For The Weak-Hearted

It took about 30 minutes to apply the electric current and successfully ramp LM-1 up to the 3995 ampere (A) mark where the magnet finally quenched at a magnetic field of 5.255 T. Even Bob Palmer admitted that most of those minutes were "a nerve-wracking experience."

Carl Goodzeit was more explicit. "When a new magnet is tested for the first time," he said, "the most exciting part is in the magnet test facility, watching the currrent go up, not knowing when the magnet is going to quench. It's not for the weak-hearted. There's a certain field (5 T) above which you know it will be all right, and, as it gets closer, you can feel your pulse racing."

Once the magnet reached that point safely, the many dedicated people assembled for the initial test began to wonder who would win the "Quench on LM-1 Lottery" established to see who could most closely guess the amount of current that would ultimately be required before the magnet first quenched. Ed Casanas, a senior technician with the measuring section of the Magnet Test Group, was the winner with his estimate of 4003 A. Nick Samios' guess of 4160 A was "optimistic" said Bob Palmer, who had eliminated himself from the competition.

Doug Humphrey

Robert Bacharach

Bacharach To Head MIS

Robert Bacharach has been appointed Manager of the Management Information Systems Division (MIS), effective November 1. He succeeds Jagdish Dalal who left the Lab in September to take a job in private industry.

The MIS Division has been created from the Office of Management Information Systems and the Administrative Systems and Data Processing Division. Bacharach will head the new unit and James Birtle will be MIS Coordinator. The reorganization was done, said Assistant Director Henry Grahn, "to streamline operations and to more properly reflect the evolving nature of management information systems at BNL."

Bacharach, who has been at BNL since October 1980, is a Senior Systems/Data Processing Analyst and was also project head of a new Accounting and Budget/Expense System which will become operational in the next few months.

Before coming to BNL, he managed Micro Systems Consultants, an independent software consulting firm, where he was responsible for the design and implementation of dispersed-network on-line systems with both financial and manufacturing applications. He also spent four years at Estee Lauder Company first as senior systems programmer and, later, as project manager for financial development.

In Case Of An Emergency

Everyone is familiar with the procedures used when news of an impending heavy snowfall reaches BNL. After word to go home is transmitted by telephone from the Director's Office, employees pick up their carpools and leave the site. This is, in essence, an evacuation. Obviously, evacuation procedures are an important part of any research institution's planning for emergencies, and a number of conditions could develop which require evacuation of all, or part, of the site.

For instance, inclement weather can disrupt operations. Brookhaven is situated in an area sometimes subject to hurricanes, severe brush fires and, as evidenced last week, even occasional earthquakes. Chemicals and toxic substances are materials used in everyday research, and the Laboratory has large supplies on hand. And, of course, two nuclear reactors are included in our research facilities.

For the past year, Brookhaven and other government research facilities have been making a major effort to upgrade all aspects of their emergency preparedness. The Laboratory's plan recognizes the potential for emergencies ranging from minor incidents to serious events, and outlines the appropriate response. The plan sets up a chain of command and details the responsibility of individuals and groups in dealing with an emergency.

In order that employees may become familiar with the signals alerting them to an emergency which might require evacuation, the six warbling air horns and three site sirens will be tested on a regular basis beginning the week of November 2. The warbling horns (emergency alert) will be tested every other Thursday at noon. The site sirens (signal for evacuation) will be tested every Monday at noon. Don't panic when you hear the signals at these times — it is only a test. In the past, these alarms have been sounded on Saturdays, but as few employees are on site at that time, it was decided to do the testing on a weekday.

The next step in familiarizing employees with emergency procedures will be to conduct an evacuation exercise. This demonstration will take place some time in November. It will be announced well in advance, and employees will be given instructions on how to proceed. For most employees the procedure will be similar to that followed on a snow day, except that the exit from the site will be more controlled.

On November 6, a brief description of the Lab's evacuation procedures will be issued to all employees by the Safety & Environmental Protection Division. Employees will need to read this carefully and be prepared to carry out their roles on the day of the exercise. In addition, this plan will be spelled out in a later issue of the Bulletin. Questions concerning evacuation procedures can be directed to Dept./Div. S&EP coordinators or representatives.

Testing (Cont'd)

Willen spearhead the R&D effort. Designs for measuring coils and other special projects come from the group headed by Donald Gardner, which includes Ted Arns, John Koehler, John McCafferty and Cosmore Sylvester. George Stenby's people — Sebastian Dimaiuta and Philip Weigand — build mechanical testing apparatus; while Manfred Thomas' section, including George Murdock and Paul Ribaudo, construct electrical and electronic devices. Irving Montanez is responsible for calibration and documentation. For power supplies and their controls, Bob Edwards and George Ganetis of the Controls group give invaluable support.

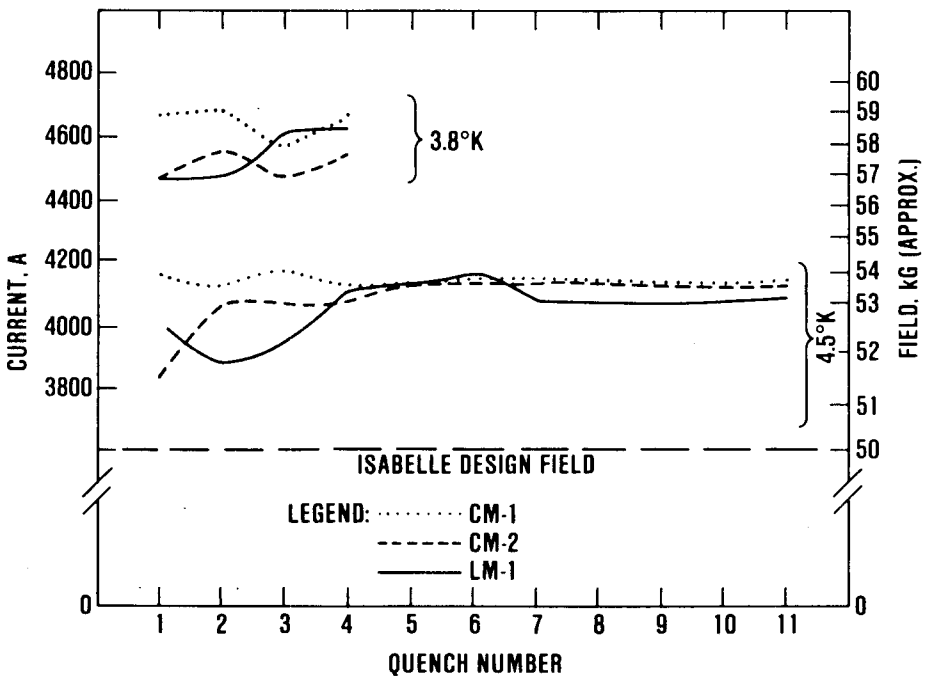
Thomas Wild and Kim Mohanty create software for on-line and off-line duty respectively. The operators in William Carapezza's measuring section — Ed Casanas, Denis Donahue, John Doorhy, Don Kazmark, James Miskovsky, and Victor Vitkun — staff the control room 24-hours a day, alternating 8-hour shifts. Their data are analyzed by physicists George Bozoki, John Herrera, Harold Kirk, and Erich Willen, assisted by Barbara Smith.

Also working with the Magnet Testing Group is a section of the ISABELLE Cryogenic Group. Specifically dedicated to magnet testing, the group is led by Joe Bamberger and Herb Hildebrand.

Achieving these goals will still require a good deal of effort from the Magnet Testing Group. But as Harold Kirk said, "Everyone's been doing it very happily since the Palmer magnet was chosen," a sentiment echoed by George Stenby who added, "Everybody's very optimistic about the Palmer magnet." — Anita Cohen

Doug Hump...

Members of the Magnet Testing Group staffed the control room earlier this week during testing of the first full-size Palmer magnet: (from left) Ed Casanas, Jim Miskovsky, Bill Carapezza and Klaus Jaeger.



The consistency achieved by each of the first three Palmer magnets is shown here. LM-1 is the full-size (long) magnet; CM-1 and CM-2 are the first two five-foot cable magnets. At 4.5°K, current was applied to each magnet until it turned itself off (quench number one). For each magnet, this occurred at a point well above the ISABELLE design field. This was subsequently repeated on each magnet many times, the first eleven of which are shown. Note how each magnet quickly settled at virtually the same magnetic field as the others. When temperatures were dropped to 3.8°K (ISABELLE operating temperature), all three magnets could absorb higher currents, immediately attaining and maintaining higher fields.

More On Cost Cutting

Suggestions on cost cutting continue to roll in, and many employees said yes or no to suggestions printed in the October 23 Bulletin.

As could be expected, the majority said they were against pay cuts, but were in favor of most other ideas. Opinion was split on closing the gym and swimming pool. Some people did not want to reduce the vacation carryover allowance, and some didn't understand how this would produce a savings.

When questioned, the Budget Office said that reduction of the vacation carryover from 36 to 26 days would result in a one-time savings of more than $2 million, which would be available to the Lab in the year in which the carryover reduction was made.

One of the most popular suggestions was the 4 day/10 hour a day week. The Cost Cutting Committee has looked into the matter and, unfortunately, it is not workable. The Contract Work Hours and Safety Standards Act (included in AUI's prime contract with DOE) requires that government contractors pay overtime for hours in excess of eight hours in 24. Further, the Davis Bacon Act would require that contractors to BNL, working on site, also pay their employees overtime in excess of eight hours a day, if BNL is on a four-day schedule. Committee chairman, Joseph Hendrie, commented that "in view of these provisions, it doesn't look to me that it would be practical to consider a four-day week."

New suggestions for paring costs ranged from nuts and bolts to policy changes:

- Maintain better control over stockroom issues; consider consolidating some stockrooms handling similar items.
- Use 8¼" instead of 11" wide computer paper. Print eight lines per inch instead of six.
- Turn off lights and window heating and cooling units when leaving office.
- Limit sick leave to a nominal six days per year with extensions available for verified serious illnesses.
- Return to the policy of having employees contribute to the cost of medical coverage.
- Reduce waste resulting from excessive distribution of reports that have limited interest.
- Encourage recycling and reuse of small hardware such as nuts and bolts. Encourage people to save rather than discard these items.
- Require employees to turn in the daily allowance received for jury duty. This would be similar to the existing policy for military duty compensation.

The committee will be glad to receive all employee suggestions and the Bulletin will continue to keep you informed on the ways and means of cost cutting.

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CHPS Under New Management

The Laboratory has been informed that the Community Health Plan of Suffolk has been taken over by Blue Cross/Blue Shield and will operate the facility as a state-qualified HMO plan. For the remainder of this year, Blue Cross/Blue Shield will continue to provide all enrolled employees the same medical services previously provided by CHPS.

However, after January 1, 1982, some medical services will either be reduced or revised, with possible increases in premium cost.

A meeting between representatives of the Laboratory and Blue Cross officials has been scheduled for the early part of November to discuss what services will be provided by Blue Cross. As soon as possible, the Laboratory will provide information concerning the new plan to all employees participating in CHPS.

In Memoriam

Norwood "Woody" Greenlaw, a Development Engineer in the Instrumentation Division, died on October 20 at the age of 46 at his family home in Deer Isle, Maine. He had been on long-term disability since last September.

He joined the Instrumentation Division in 1959 as a technician, and was a winner of an AEC Technician Scholarship in 1967. He was promoted to Development Engineer in 1968.

Greenlaw is survived by his wife Mary, two sons, John David and Joseph Daniel, his mother, and a sister, Norma Nevels.

Service Awards

The following employees received service awards during the month of October.

Thirty Years

Peter Colombo ..... Nuclear Energy
George J. Dienes ..... Physics
Joseph Weneser ..... Physics

Twenty Five Years

Kenneth E. Boehm ..... Photog. & G.A.
John F. Donnelly ..... Accelerator
Margaret W. Greene ... Energy & Env.
Martha A. Heine ..... Medical
James R. Powell ..... Nuclear Energy
N. Peter Rathvon ..... AUI
Lee C. Rogers ..... Instrumentation
Helen B. Streeter ..... Physics

Twenty Years

David R. Brady ..... Accelerator
Edward T. Erhardt ..... Plant Engrg.
Ralph G. Fairchild ..... Medical
John H. Scharpeger ..... S.&M.
George C. Waldbauer ..... S.&M.

Ten Years

Yong Y. Lee ..... Accelerator
Joseph P. Roberge ..... Physics
William J. Sells ... Safety & Env. Prot.
George J. Virtes ..... Physics

Concert Tonight

The Galimir String Quartet performs tonight at 8:30 p.m. in Berkner Hall. Tickets for the concert will be available at the door.

CREF Values

September	48.75	October	49.13
November	53.19	December	51.77
January	50.20	February	51.21
March	52.85	April	52.39
May	52.56	June	51.94
July	51.19	August	48.26

September $45.89

Review Reminder

Part A of the Professional Engineer Licensing review course will start on site on Wednesday, December 2, in Building 184 from 5:15 - 9:15 p.m. and will run for 15 consecutive weeks. Registration is from Friday, October 30 through Friday, November 6, in Room 112, Bldg. 460. The tuition fee is $128 and may be paid with Visa/Mastercard/checks/money orders payable to SCCC. For information contact Renee Flack, Ext. 3316.

BNL Highlights

Brookhaven Highlights '79'80 is now available to BNL staff and affiliates of DOE, AUI, and NRC. Staff members interested in obtaining a copy should contact Technical Information at Ext. 5068 or Bldg. 477B and request report BNL 51400.

Those not affiliated with the above groups may purchase the report from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, Virginia 22161 using NTIS price code: printed copy: A09; microfiche copy: A01.

Attn. H.P. 85 Users

The Scientific Instrument Service Group (Instrumentation Division) is currently providing Lab-wide service for the Hewlett Packard 85 desktop computer and needs to know who the on-site users are and what peripherals they are using. We also hope to form a software exchange group if there is enough interest. Please contact Frank McNulty, Ext. 4227/3270.

Mountain Club

The November meeting of the Mountain & Canoe Club will be held at 5:30 p.m., Tuesday, November 3, in the North room at the Brookhaven Center. All are invited to come to discuss trips for November and the rest of the winter,

Cooking Exchange

The next meeting will be on Wednesday, November 11, from 12:30 to 2:30 p.m. in the Recreation Building. Expert cook Jacqueline Newman, Professor of Home Economics at Queens College, will be the star attraction.

Speakers Bureau

Edward Murphy (PE), South Country Lion's Club, Turn Down the Heat on Home Energy Bills, September 24.

Meyer Steinberg (DEE), U.S. Coast Guard Academy, New Directions in Coal and Nuclear Energy, October 15.

Leslie Fishbone (DNE), Long Island Conference of the N.Y.S. United Teachers, International Energy Agency Systems-Analysis Project, October 17.

Dan Hagan (DEE) League of Women Voters of Southampton, Passive Solar Retrofit, October 22.

Edward MacDougall (DNE); **William Graves** (DEE); **Dan Hagan** (DEE), Suffolk County Home Energy Day, Panel on Residential Energy Conservation, October 25.

Trick Or Treat!

Tomorrow night is Halloween, and many children will dress in costume and go from door to door asking for treats. If you live on site in the housing area and want children to come to your door, please turn on your porch light.

A costume contest for on-site children will be held at 6:30 p.m. at the Lollipop House in the main playground. Prizes will be given to winners in two categories — six years and under and seven through fourteen.

For some on-site foreign visitors, Halloween may be an unfamiliar custom. It has its roots in the religious rites of the Druids, an order of priests in ancient Gaul and Britain. The Druids celebrated a harvest festival called Samhain, or summer's end, and bonfires were lit to scare away ghosts of the dead. From the Druids comes the present-day use of witches, ghosts and cats in Halloween festivities.

In the ninth century, Christians set aside November 1 as All

Saints' Day, to honor all saints. The evening before was called "All Hallows Eve," which means "holy evening." This was eventually shortened to "Halloween."

Irish and Scottish immigrants brought Halloween customs to this country. The first jack-o-lanterns were carved by the Irish from large potatoes or turnips.

Today, Halloween has lost its religious and supernatural symbolism. It is now a time of merrymaking and treats for children.

Art Show Monday

An exhibit of realistic paintings and wooden sculpture opens at Berkner Hall with a reception on Monday, November 2, from 4:45 p.m. to 7 p.m. Employees are invited to meet the artists at the wine and cheese reception and to view the show from November 3-13, between the hours of 11:45 a.m. and 1:30 p.m.

Arrivals & Departures

Arrivals

Khem P. Fatimi ..... Medical

Departures

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

Carl R. Bock ..... Energy & Environment
Dennis Kirson ..... Safety & Env. Prot.
Donna L. LaSalla ..... Safety & Env. Prot.
Horng-ing Liou ..... Physics
Karine C. Laudun ..... Applied Math.
Brian J. McNally ..... Personnel

Indoor Tennis

From November 2, tennis players may reserve the gymnasium court (play starts November 10) for the following periods:

Tuesday 5 p.m. to 9:30 p.m.
Sunday 1 p.m. to 5:30 p.m.

Reservations can be made at the gynmasium no earlier than a week before play, and players are limited to one hour of court time per week.

Bowling

Red & Green League

J. Bohenek bowled a 201, J. Ferrante 204, W. Kristiansen 237/671 gross, J. Medaris 208, J. Cochrane 203, N. Tyler 214/655 gross, L. Musso 208/696 gross, R. Larsen 225, L. Schairer 653 gross.

White League

High games were bowled by D. Adams 209/223, K. Asselta 202.

Purple League

The Pen Macs are in first and the Razors Edge in second. G. Walker converted the 3/7/10 and G. Brown the 5/7. High games were bowled by K. Riker 220/558 scratch, J. Ferrante 204/565 scratch, B. Benson 203/186/550 scratch, J. Pinelli 180, B. Jellett 181.

Pink League

Good games were bowled by D. Johnson 166/177/228 for a 571 scratch series, E. Kristiansen 176/181, F. Briening 172.

Hospitality News

A discussion on skin care and demonstration on the proper application of makeup will be presented by Sharon Hoeffner at the Hospitality Committee's morning get-together on Tuesday, November 3, from 9:30 to 11:30 a.m., in the Brookhaven Center.

All wives of Laboratory employees and guests are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

Postal Note

The following rate increase on domestic first class mail will be effective this Sunday, November 1, at 12:01 a.m.

Letters - 20¢ for the first ounce (a 2¢ increase); 17¢ for each additional ounce (no change)

Postcards - 13¢ (a 1¢ increase)

At this time, there are no changes in the rates for international mail or parcel post.

The Upton Post Office is fully supplied with postage stamps of all denominations.

Cafeteria Menu

Week Ending November 6, 1981

Monday, November 2		
Cream of tomato soup	(cup)	.55
	(bowl)	.65
Corned beef & cabbage		1.65
American chop suey & 1 veg.		1.60
Hot Deli: Pastrami	(on bread)	1.70
	(on roll)	1.80
Tuesday, November 3		
Split pea soup	(cup)	.55
	(bowl)	.65
Western type chili over rice		1.60
Roasted top round of beef & 1 veg.		1.70
Hot Deli: Sausage hero		1.70
Wednesday, November 4		
Pork & cabbage soup	(cup)	.55
	(bowl)	.65
Meatcakes & onions w/1 veg.		1.65
Barbecued chicken & 1 veg.		1.60
Hot Deli: Grilled Reuben		1.70
Thursday, November 5		
Cream of cauliflower	(cup)	.55
	(bowl)	.65
Seafood platter		1.91
Barbecued spare ribs & 1 veg.		1.65
Hot Deli: Roast beef	(on bread)	1.70
	(on roll)	1.80
Friday, November 6		
Mussel chowder	(cup)	.65
	(bowl)	.75
Broiled fresh fillet of fish w/1 veg		1.65
Swedish meatballs over noodles		1.60
Hot Deli: Clam boat		1.80

Classified Advertisements

Autos & Auto Supplies

JEEP SOFT TOP - for late model CJ5, black, never used. $165. Cindy, 924-5533.

77 CHEVY VAN - G10 long, 305 V8, a/t, a/c, cruise, am/fm cassette, CB, loaded, 57,000 mi. Asking $4,200/ Ted, Ext. 4163 or 286-0065.

74 DODGE COLT - sta wgn, orig owner, (a/t needs work), good 1600cc rebuilt eng, no accidents, clean inside and out. $800. George, Ext. 3636 or 759-1328.

70 FALCON - 6 cyl, std trans, good mpg, good tires, some rust. $400. Ext. 4475 or 929-3251 eves.

67 OLDS WAGON - runs good, chassis bad, good for parts. $250. Steve, Ext. 7772 or 654-8438.

71 MERCURY - a/t, p/s, excel cond, reg gas, 88,000 mi, pampered creampuff. $750. Ext. 4237 or 581-7656.

RIMS - (2) 15" for Ford or Lincoln. $10. Ben Azzara, Ext. 7772.

HIPPO HANDS - Vetter, winter cycle gloves, $39; Hiway/crash bar fits 750cc, $15. Mike, Ext. 4360 or 698-5861.

MOTORCYCLE - Honda CB125, excel, 85+ mpg, windshield, luggage rack. Must sell. $350. Jack, Ext. 4411 or 929-8287.

VW BUG - tan, high mpg, good interior/exterior, good running cond. 929-8365.

TIRES - (4) G78x15, less than 300 mi, mounted on Dodge rims. Best offer. Ext. 5288 or 666-4303.

CARBURETOR - Toyota 8 R.C. Ready to install or rebuild. Complete $40. 727-4884 after 6 p.m.

70 DODGE WAGON - 318, a/t, p/s, am/fm, trailer towing package, 2 snows and rims. $600. Bob, 878-2687 after 6 p.m.

RIMS - (2) 14" 5 hole from Plymouth. $15. Ext. 2493.

BATTERIES - auto, industrial, marine, brand new, for all makes, foreign and domestic. Medina, Ext 7636 or 924-6971.

73 MONTE CARLO - landau, p/s, p/b, p/w, p/d, a/c, tilt wheel, 350, 4 barrel, good cond, reg gas. $1,000; snow tire GR78-15 Delta dura steel, w/w, like new. $25. 744-1429.

HIL BORN FUEL INJECTION - S/B Chevy. $400; GM Powerglide aluminum case, $75; Edel Brock 2x4 BBL Tunnel ram, $100; w/2 Carter carbs, $135; Hurst shifter, 3 spd, $65. Mike, Ext. 4857.

80 MUSTANG - 4 spd, a/t, am/fm stereo cassette. $5,000. Best offer. Ron, 928-3596.

1976 CAMPER - Prowler 20', tandem axle, care free awning, tub, shower, excel cond. $3,500. 282-7130 or 727-1464.

65 DODGE DART - 4 dr, 273 cu. in. a/t, p/s, high mileage, mech special. Best offer. 929-4823 after 5 p.m.

79 CHEVY PICK UP - 4 w/d, short bed, 350-4 spd, dual tanks, Scottsdale package, rear sliding window, rust-proofed, economy rear, 8,000 mi, like new. $7,200. Paul, Ext. 7130 or 727-1464.

77 JEEP CJ5 - 14,000 K mi, 6 cyl, gas saver, 4x4 A.T. tires, mint cond. $4,395. Jeff, 732-3842.

72 CHEVY WAGON - good running and good cond, new tires and trans. $750. Frank, Ext. 4113 or 399-1307.

79 PLYMOUTH VOLARE - 4 dr, 6 cyl, a/t, a/c, p/s, p/b, 36,000 mi. $3,600. Terry, 499-8377.

72 TOYOTA - needs clutch, cheap trans. $250. Jim, Ext. 3046 or 286-1381 after 6.

78 CUTLASS - 4 dr, small V8, a/t, a/c, p/s, 4 spd, stereo, clock, cruise control, Rally wheels, excel cond. $4,500. Ext. 2366 or 821-0535.

72 PLYMOUTH DUSTER - 6 cyl, 225 eng, p/s, a/c, very good cond. 399-5407.

RIMS - (2) 14" four bolt for '67 Mustang and other Fords, $8 ea, $15 for 2; rim 5 bolt, 14" for Fords. $8. Bob Doering, Ext. 4474.

71 VW CAMPER - fully equipped, recent rebuilt engine, good tires. 924-6187.

73 LINCOLN CONT - new tires, low mi, very good cond. $1,600. Rich, 665-6189 after 6 p.m.

71 CHRYSLER - New Yorker, dark green vinyl roof, p/s, p/b, p/w, p/seats, a/c, good cond, chassis and motor manuals. $750. Jim, Ext. 4040 or 289-0876.

74 HORNET HATCHBACK - 6 cyl, a/t, am/fm, good cond. $950. 369-2504.

Boats & Marine Supplies

26' 1948 FREEPORT - "Columbian" w/185 hp Crusader fwc, mechanically good, needs refurbishing. 286-1262 eves.

27' OWENS CABIN CRUISER - in water, runs well, free winter storage. $2,600. Ext. 3698 or 288-3892.

Miscellaneous

CHAIR - upholstered swivel rocker, recently reupholstered, blue, arm & head sleeves, scotch guard material. 473-4803.

POOL COVER - round, 15 ft. new. Janet Hayes, 475-7025.

UNICEF - 1981 Christmas cards, gifts, stationary. For catalogs & order call Ext. 4959 or 821-1734.

HELMET - Med. size Aries full face, black, brand new. Cost $95. Now $75. Ron, Ext. 7101 or 289-1003.

ELECTRIC RANGE - 40" white porcelein, 2 ovens. Best offer. 281-6026 after 4 p.m.

1919 RCA ELECTRIC - Gramaphone console, needs electrical work. $250. 475-5415 after 7 p.m.

DYNACO STEREO - 35 watt amplifier, pre-amp, & FM tuner, excel cond. Asking $150. Ext. 7772.

TYPEWRITER - Remington Rand, standard, new ribbon, good working cond. $25. 475-8658.

G.E. VCR - 2 yrs. old, needs video head, otherwise excel cond. $200. 821-1252 after 6 p.m.

DEMING WATER PUMP - w/30 gal. tank & press. switch, $75; chandeliers, several crystal & others; dresser, large $95; GE 18 lb. washing machine, needs timer points. $30; kitchen set, $40. Jake, Ext. 4532.

DESK - 28"x54", 5 drawer, wooden. $85. Ext. 4748.

CANDLE MOLD SET - large, $8; 78 RPM records, 50¢ to $1.00 ea; 6 or 12 volt Gel-Cell, rechargeable $12. ea. Ext. 4058 or 286-0436.

LEITZ ELECTROPHOTOMETER - Model M, $110; compass, Pioneer upright, compensated, $40. Ext. 4051.

LIVING ROOM - sofa, love seat, chair, ottoman, 2 tables. $400. 744-4595 after 5 p.m.

MAGNUS CHORD ORGAN - like new, w/10 music books, perfect for Christmas. $35. 286-1522 eves.

FURNACE - wood & coal burning, 4 ft. 4 in. height. Best offer. 727-0139.

SKIDOO SNOWMOBILE - 320AS, 1971 335cc, needs some work. $100. 286-1522 eves only.

DOMESTIC HOT WATER - Hydronic Heating System circulator, Taco complete, $35; factory rebuilt bearing assembly B&G circulaor. $20. Frank, Ext. 3898.

TEXAS FIREFRAME - Model U25. Advertised in Scientific American for $50. Half price. Howard, 286-1444.

CHRISTMAS TREE - 7½ ft. artifical Scotch pine. $40. 744-4595 after 5 p.m.

COMPUTER - TRS80 Mod 1, 2 drive floppy disk system w/120CPS Line Printer 48K RAM, tables incl. $2,500. Ext. 2504.

CONSOLE PIANO - beautiful pecan wood w/ bench, excel cond, 4 yrs. old. Originally $1,600. Sell for $850. 286-2221.

SALTON - automatic electric egg cooker, $7. Joe, Ext. 4212.

ADEMCO - Burglar alarm systems, just above wholesale. Install yourself. Azzara, 423-6022 after 6 p.m.

STOVE - wood burning, new, never fired, Franklin cast products ERIK 809, 25"x26"x33", 461 lbs. $295. Ext. 4863.

BICYCLE - Lotus Odyssey Champion tubing, 21" Sugion crank Suntour cyclone derailleurs Avocet saddle panniers, 23 lbs. 929-8662.

COLONIAL SOFA - Clayton Marcus, multicolor, 2 yrs. old, excel. $300. 928-5136.

BICYCLE - boys 26" 10 spd, Ross compact Model, excel. $65. R. Hildenbrand, Ext. 3273.

WATER COOLER - glass bottle, 5 gal. $10. Nick, Ext. 4701.

TV - 25" color console, v.g. cond, $200. Edward, Ext. 3403 or 751-1826 after 6 p.m.

SOUNDESIGN AM/FM - 8 trk, tape recorder/ cassette recorder stereo. Larry, 475-2058.

ICE SKATES - child's double edge, size 13, used once, $5; sewing machine table, Sears Kenmore, walnut, $35. 929-6692.

TV - Zenith 23" console, needs tubes, otherwise good cond. Ron, Ext. 2621 or 744-8334.

SONIC - 3 way speakers, 12" Woofer, like new. $80. pr. Ext. 4758 or 862-6109.

WOMEN'S FRYE BOOTS - size 7½, like new, $25; ski jacket size 7/8, like new, $35. 744-5161 eves.

BLENDER - Sears 14 spd w/Insta pulse, harvest gold, best offer over $15. Alyce, Ext. 2902.

GIRL SCOUT UNIFORM - pants, jumper, blouse, & shorts, size 12/14. $12. 581-7656.

BICYCLE - 10 spd Ross Grand Prix. $60. Ext. 4040.

SKI POLES - 52" used twice, $10. Mike, Ext. 4360 or 698-5861.

TRICYCLE - $20; assorted 8 trk tapes, $2. ea; porta crib, $8; modern chair chrome w/black vinyl, $40. George, Ext. 4460/4453.

GIRL'S WHITE CANOPY BED - dresser, end table. $250. Chuck, Ext. 4481 or 567-1272 after 6 p.m.

P.A. SOUND EQUIP - Amps, mixes, heads, speakers. 822-5562.

Real Estate

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

For Rent

HOLBROOK - ranch, 3 bdrms, huge master, den, eik, l/r, patio, 2 baths, lots of closets, big yard. Dec. 1st occup. $600/mo. + Util. + Security. 472-4573.

VERMONT CHALET - near Bromley, Stratton & Magic Mtns, XC adjacent to chalets, beautifully furnished, stone fp, rent: wkends, wks & partial seasons. 757-5599 after 4 p.m.

VERMONT - hike, loaf, XC or downhill ski, Cape Cod, fully equipped, 3 bdrms, 2 baths, fp, garage, reasonable. 732-6499 after 6 p.m.

RIDGE - 2 bdrm apt. near North gate, appliances include: dishwasher, washer/dryer. Lge. bsmt & attic, separate kitchen, dinette & den. $500/mo. including all Util. 924-3036.

QUIET YAPHANK - 2 bdrms, bath, l/r, d/r, kitchen, complete house & grounds. Asking $325/mo. + Util. YA4-6187.

YAPHANK WATERFRONT - 3 bdrm. Ranch, l/r, d/r, den, eik, playroom, garage Ext. 3706 or 862-6259 after 6 p.m.

MIDDLE ISLAND - Sublet, 2 bdrms, l/r, d/r, fp, carpeted, Village on Artist Lake, Available Dec. 1st. $360/mo. + util. Ext. 2626 or 924-4815 after 5 p.m.

SPRING HILL, FLORIDA - West Coast, near Tampa. Lounge in Florida sun, fully furnished 2 bdrm house, golf, lakes, tennis in community, state beach near-by. Wkly or Monthly. Ext. 4226 or 261-2719.

STONY BROOK - 7 rm house, 4 bdrms, 2 full bath, unfurn. $575/mo. 689-9409 after 7 p.m.

For Sale

WADING RIVER - Clarendon Homes wooded level acre, 10% mortgage available. Taxes $175. yearly. 929-4173 eves.

FLORIDA CONDO AT SANFORD - 1/2 hr. from Disney World, 2 blocks from Lake Munroe, pool, tennis courts, huge trees, landscaped beautifully, 2 bdrms, 2 baths. 281-7986.

Wanted

PIANO - Grand or baby grand, good cond. 286-8166 after 5 p.m.

AMBITIOUS PERSON - $200-$300/mo. 4-6 hrs./ wk. 698-5861 after 7:30 p.m.

CLEANING WOMAN - reliable, experienced, thorough worker. 475-8658 after 6 :30 p.m.

MANDARIN-SPEAKING BABYSITTER - for a 2 yr. old girl, wkdays. Preferably someone who has other children & lives close to the Lab. Mona, Ext. 2347 or 878-9384 eves.

THREE PRONG WALKER - for elderly gentleman, in good cond. Reasonably priced. 732-6137 day or eves.

CERAMIC KILN - and equipment. Priced right. 727-4859 or Ext. 4665.

CHOW CHOW PUP - male, black, preferred w/papers. 286-1522 eves only.

MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.

ROOMMATE - to share comfortable 3 bdrm Condo, w/w, washer/dryer, dishwasher, 5 min. from Lab. $200/mo. + util. Neil, Ext. 3886.

SEPTEMBER ISSUE - of Vogue Magazine. Ext. 3632 or 878-8491.

USED ROTOTILLER - in need of repair, cheap. John, Ext. 4976 or 744-4386.

POWER TOOLS - used, Rockwell or equivalent quality. Don, 286-0919.

HOUSE TO RENT - Bellport Village or Brookhaven Hamlet, Ext. 5055 or 286-0919.

GARAGE SPACE - for car storage. Nov. thru April. 289-5770 after 6 p.m.

HONDA 750 FRONT END - complete or parts. Ext. 3533 or 654-2076.

USED FLOWER POTS - any size or material, inexpensive. 929-8982.

WEIGHT SET - curling bar, and bench. 473-2473.

FILING CABINET - Edward, Ext. 3403 or 751-1826 after 6 p.m.

LATHE - small for watch, clock instrument work. George, Ext. 3536.

Car Pools

COMMACK RD. EXIT 52 LIE - Park & Ride, additional drivers, existing car pool. B. Peterson, Ext. 3284 or K. Crowe, Ext., 4306 from 8:30 to 5:00 p.m.

BABYLON - West Islip, driver needed for 4 person car pool. Ext. 2493.

PATCHOGUE/LIRR STATION - Ride wanted every Monday to Brookhaven Lab. (8:10 arrival) Jim, Ext. 3372.

RIDE - for reliable paying rider from Bellport on Mon., Wed., Fri. mornings, arriving at 8:15 a.m. 286-8724.

Lost & Found

LOST - Red pocket knife, Swiss Army, of sentimental value. If found please call Don, Ext. 2225.

LOST - Blue rain coat w/gloves, lost some weeks ago. J.M. Olson, Ext. 3382 or 289-8629.

Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by the ***Bulletin.***

LIMO SERVICE - Chauffered luxury for Weddings, airport, all occasions. Roy, Ext. 4664 or 744-8779.

HANDMADE ELVES - dolls, trees, baskets, elephants. Order now for Christmas. 289-4325 after 6 p.m.

HOUSEHOLD - small appliance repairs. North Patchogue. Vacuums, elec. heaters, etc. 654-3900.

CARPENTRY REPAIRS - and modifications. No job too small. Charlie, 929-4251 or Joe, Ext. 4660.

RESUME PREPARATION — low cost, professional service. Bill Polvent, 744-8999.

PLUMBING - Lab discount. John, 654-8189.

CARPETS INSTALLED - quick dependable service. Free estimates. Jim, 821-0187 after 5 p.m.

RUBBER STAMPS - plastic laminating, pressure sensitive tapes & labels, desk, nameplate badge engraving. 286-3377 after 6 p.m.

CHEESE CAKES - Quiches, Pecan pies, apple streusel pies, homemade. Order now. 821-1039.

SEWING INSTRUCTIONS - beginner, intermediate, advanced. JU5-8461.

FIREWOOD - split seasoned oak, 4'x16'x18". $110. delivered. 924-4284 or 924-3919.

Classified Ad Policy

Deadline is 4:30 p.m. Friday for publication Friday of the following week.

1. The Brookhaven Bulletin s classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser s property.
3. Ads for material acquired for resale in association with a full or part time business cannot be accepted.
4. Ads for the sale or trade of firearms will not be accepted.
5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated. One ad per person per week.
7. **Property for sale or rent cannot be accepted on this form. Special Real Estate Ad Forms are available at the office of the Brookhaven Bulletin, Building 134.**

☐ For Sale: Autos & Auto Supplies ☐ For Sale: Boats & Marine Supplies ☐ For Sale: Miscellaneous ☐ Car Pools ☐ Lost & Found ☐ Services ☐ Wanted ☐ Free

Please print your ad below in 15 words or less using one word per block. Include name and phone number to call.

Note: The following must be completed for your ad to appear.

NAME (Please Print) .....

Employee s Signature ..... Life No. ..... Ext. .....

Send to: Brookhaven Bulletin, Building 134 (Ext. 2345).

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