BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Resourceful Recycling At The AGS

The Jolly Green Giant came to the AGS in 1974, accompanied by Catherine of Aragon and Henry Higgins. The Giant has recently found work with experiment #766, and Catherine of Aragon is being readied for a spot in the new HEUB line when it starts operations in 1983. But Henry Higgins was transferred to Fermilab for an experiment there.

The Jolly Green Giant, Catherine of Aragon and Henry Higgins are the fanciful names of three large magnets acquired by the AGS from the Cambridge Electron Accelerator (CEA), when it ceased operating. Such resourceful recycling of experimental equipment "is the only way we can survive in today's budgetary climate," said Derek Lowenstein, deputy chairman of the Accelerator Department and head of the Experimental Planning & Support Division.

Indeed, a close look at the AGS' experimental equipment reveals that much of it could be considered a bargain, either because it has been used for so long and so well that it has paid for itself many times over, or because it was acquired at so little cost. Take the Jolly Green Giant. Built for the CEA in 1965 for $192,000, Lowenstein estimated that the 230-ton magnet would cost more than $750,000 to build today. Yet the AGS paid only transportation costs for the Giant.

The magnet used in the Multiparticle Spectrometer(MPS) is another case in point. It is more than twice as large as the Giant, and if it had had to be manufactured new, the MPS might have remained only a good idea. But BNL acquired the magnet from Argonne National Laboratory for only the costs of transportation, assuring the MPS a healthy future.

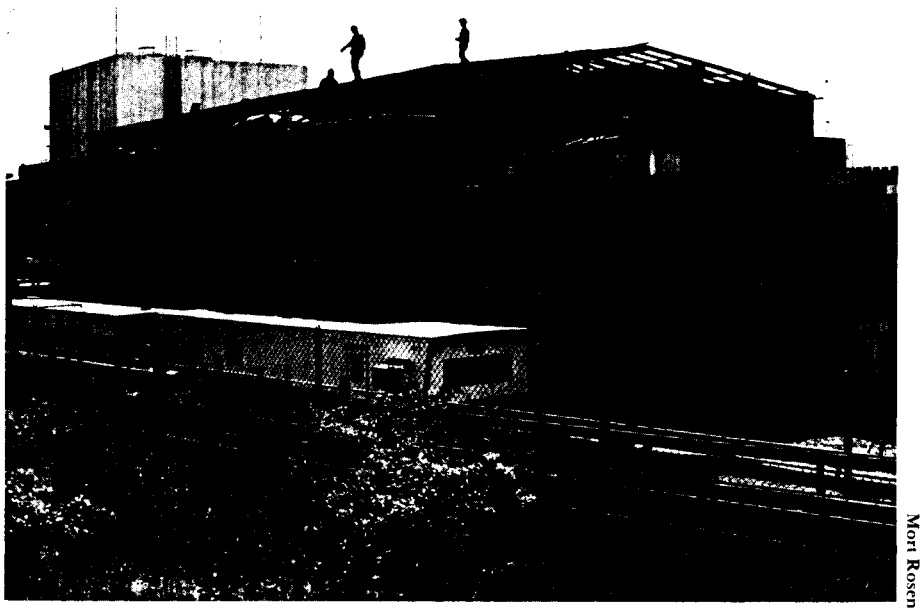
Trade agreements also help BNL beat the high cost of spectrometer magnets. One example is the neutrino experiment #734 which is currently using a Cornell spectrometer magnet. And it was a similar trade that sent Henry Higgins to Fermilab.

In several instances, as with the CEA, the AGS has received equipment when a facility closed. When Argonne's Zero Gradient Synchrotron (ZGS) stopped running in 1979, Lowenstein was appointed to a committee of representatives of all the U.S. high energy physics laboratories charged with determining which labs should get which equipment. BNL's share included several magnets which are now being prepared to play a critical role when polarized protons begin to circulate in the AGS in 1984.

In 1978, under the terms of a joint DOE-NASA agreement, Brookhaven was chosen to clean out the recently-closed Space Radiation Effects Laboratory (SREL) in Virginia. It cost BNL about $1,000,000 to bring that lab to a broom-clean stage. But, Lowenstein said, "We couldn't afford not to do it." By themselves, the 14,000 tons of concrete block shielding, 900 tons of steel shielding, and a 2,800 ton cyclotron magnet that came from SREL, represented a $6,330,000 value. Other items salvaged, ranging from power supplies to cables, were estimated to be worth almost $2,000,000. This sort of bargain, explained Lowenstein, "gives us capabilities we could not afford otherwise."

Salvage from SREL has found its way into several AGS projects. An array of quadrupole magnets, for example, is helping make possible the construction of a new muon channel in the D-line. And 80% of the concrete blocks are now in use, many as part of the blockhouse constructed around the apparatus of neutrino experiment #734, on the north side of the AGS.

Another neutrino experiment, #776, is now under construction in what



Mort Rosen

On the north side of the AGS, concrete shielding is carefully arranged to form a blockhouse surrounding the neutrino experiment #734.

Lowenstein called the far north area, about one kilometer due north of experiment #734. The steel plate that will be used to fabricate a set of toroid magnets for this experiment was acquired at a savings of about $200,000 from a surplus list issued by DOE, thanks to the alertness of Supply & Materiel's Nelson Tyler. Summing up Tyler's effort, Lowenstein said, "Without him finding this material, we'd be in a very deep hole."

The steel that Tyler found was newly cast, but some of the steel that finds its way into shielding is recycled from decommissioned battleships. If the ship was built before 1945, in the pre-atomic age, the steel shows no traces of radioactivity and is generally set aside for use in experiments where such "cold" steel is an important component.

While battleship steel may qualify as the oldest experimental equipment still in use, Lowenstein said, "We still have a fair amount of material left over from Cosmotron days." The Cosmotron was the Lab's first accelerator and ran from 1952 to 1966, overlapping with the AGS which began operating in 1960. "A large number of magnets and power supplies in use today are still from the 60's," Lowenstein said. Typically, magnets and power supplies are 20 years old and have been working for most of those years. That they are still working, however, is no accident. They are constantly being modified and updated. And this maintenance has certainly paid off. For example, four 450 kW power supplies acquired from Argonne when the ZGS closed, were built in the 60's at an estimated cost of $30,000 each. Lowenstein said it would cost a minimum of $75,000 to replace each one today. Also acquired from Argonne were five 10IV72 magnets built in 1969 for about $18,500 each. Today, the same items new would cost a minimum of $50,000 each.

The AGS has also been able to afford new magnets through rework. When the AGS was upgraded in 1970, many magnet coils were replaced, but the old coils were not thrown away. Later on, Lowenstein recalled, "We realized that many of the old coils could be salvaged. We developed a process for recycling them and now they are used in the beam transport magnets in the new switchyard. That's why some magnets may look peculiarly oversized. We built the magnets to fit the coils. But a pair of new coils would cost about $20,000. This way they cost only about $2,000."

Despite the rapid and constant changes that take place today in electronic devices, this equipment is also recycled at the AGS, through HEEP, the High Energy Experimental Pool. HEEP owns the electronics used in about 75% of the detection, control and analysis systems associated with AGS experiments. Since HEEP makes this equipment available to the whole community, experimenters have more funds to use for specialized equipment. Of the 5,500 modules presently listed on HEEP's inventory, 93% are actively in use. Four technicians work to maintain the balance of the equip-

(Continued on page 2)

Out Of The Classroom —Into The Field

Nine health physics students participated in an emergency preparedness exercise designed to see how well they could deal with smoke, radiation and a "victim." The "dead body" they are dragging out of the building (above) is a life-size dummy, filled with buckshot and weighing 175 lbs. Normally it resides at the Fire Department where it is used in training programs.

The emergency exercise was just one segment of a ten-week health physics training program which ended last Friday. During this time, the students worked directly with just about every staff member of the Safety & Environmental Protection Division. "The staff turned their jobs into learning experiences for the students," said training supervisor Frank Marotta, "and they became acquainted with a lot of things not found in classrooms." Among their experiences were learning how to operate the whole body counter, film badge processing, use of portable survey instruments and internal dosimetry. On one of their field trips, they spent time with an equipment manufacturer and gained insight into what they, as future buyers, should know about how the equipment is made and how it is used.

All participants were graduate students ranging in age from 22 to 43 years. Some will now be entering the job market while others will return to school to complete their course work.

The program is funded by the Department of Energy and has been in operation at BNL for nearly 30 years.

Doug Humphrey

Health physics students respond to an emergency situation which was set up to test their skills after a ten-week training program at S&EP.

Recycling (Cont'd)

ment, all of which is purchased to be as standard and interchangeable as possible until it becomes obsolete for experimental purposes.

During an experiment, most of the electronics are housed in trailers which were also recycled. "We never buy trailers," said Lowenstein, "we get them from various places." People made homeless by the floods that ravaged Pennsylvania in the early 70's lived in government trailers until their homes were rebuilt. When the trailers were no longer needed for that purpose, the AGS acquired many of them, just for the cost of transportation.

The recycling of experimental equipment that takes place at the AGS is echoed in the experimental facilities throughout the Lab. At the AGS, Lowenstein said," Recycling is driven by the physics requirements. Whatever the experiment, there's always some construction, some rework that has to be done. With recycling, we end up with equipment that no one could afford to build from scratch anymore."

— Anita Cohen

Doug Humphrey

Eddie Densieski with his '67 Chevelle stock car. The lettering on the door is a poignant reminder of a member of Eddie's pit crew who was killed in an automobile accident after the first race of the season. Joe's father still comes to the track every week to watch Eddie race and to cheer him on.

Life In The Fast Lane

A strange stillness fills the air when the announcer asks you to "please rise for the singing of the National Anthem," at the Riverhead Speedway. Strange because for the first, and last, time during the course of the evening, it is quiet. But that quiet is loaded with an anticipation that gives way to a full-throated roar from the crowd and a thundering of souped up engines as the stock cars of the first heat of the Novice Division prepare to get under way. Among the drivers in that race, and one of the favorites with both the crowd and the oddsmakers, is Eddie Densieski, a technician on the ISABELLE project and talented race car driver.

Eddie got started in racing in 1976 when he began working on his cousin's pit crew. Since 1978 he's been racing his own cars and now has a 6-man pit crew which includes his father, Sonny Densieski, who works in the Accelerator Department at BNL.

One recent Friday evening I sat in the stands with Eddie's parents and some twenty-eight other fans of the Eddie Densieski Racing Team, many of them wearing Eddie's distinctive white and blue racing team hats and T-shirts, and found out what their thoughts were concerning this unusual hobby. "Of course I'm concerned about his safety, but Edward knows how to take care of himself out there, and his car does have extra roll bars, a safety precaution other cars don't have," said Mr. Densieski. "I'm trying to get him to quit, but as long as he's still racing he's going to have the loudest cheers," he concluded, as some of Eddie's friends punctuated his statement with blasts from air horns. Cathy Sydlowski, Eddie's girlfriend, worries about him, but smiling she says, "I also love it, it keeps him out of trouble."

It wouldn't be easy for Eddie to find either the time or the money to get into trouble if he wanted to. He goes home and works on his car with his crew every night after work and most of the day on Saturday during the racing season and the late winter when they're getting the car in shape. Racing eats up more than just Eddie's time, it also does a pretty good job on his wallet. In a week in which there are no breakdowns and his only expenses are for gas, oil, entry fees and the barbecue he always holds in the pits after the race, Eddie spends a minimum of eighty dollars. Winning the main event is worth fifty dollars. "You can't make a profit in stock car racing. You've got to be in it for the love of the sport," Eddie said. "Almost all of my paycheck goes into it every week."

In the heat race that night Eddie was in second and challenging for the lead when his car spun out in a turn. He was able to recover and finish the heat, and therefore continue on to the main event, but due to his poor placing he was allocated a starting position well back in the field, a position from which it is almost impossible to move up with the leaders.

During intermission a country-western band played Willie Nelson songs and the crowd enthusiastically greeted participants in a "Run What You Brung" competition. In these races people take their ordinary street cars out on the track for one-lap races of two cars each with the loser being eliminated from the competition. A member of Eddie's pit crew was the eventual winner that night, driving his mother's car. He wasn't too sure just how pleased she'd be to find out about it.

After intermission the first race was the main event of the Novice Division and Eddie was back on the track. He indicated his displeasure with the way the car had been handling by giving the thumbs down sign as he passed by during a warm up lap, but that did nothing to dampen the enthusiasm of his supporters who were by far the most vocal group in the stands. There is little strategy involved in stock car racing other than to try and get in front and stay there. Split second decisions leave little time for planning and, "except for a short distance going into the turns you're constantly floorboarded," Eddie said.

Starting out back in the pack Eddie was unable to go all out, and he was unable to prevent the car from drifting out on one of the straightaways, eventually pushing another car into the wall. The driver he bumped later came up behind Eddie and attempted to "dump" him. "That's when someone hits you from behind and pushes you till you spin out. It's not very ethical but it does happen," Eddie said. After a number of yellow caution flags early in the race due to accidents, Eddie was able to move up as far as fifth place before he ran into trouble on a turn. The two cars ahead of him bumped and spun out. Eddie came close to shooting the gap between them, but one of their bumpers, or a loose part, went through the guard screen on the front of his car and damaged his radiator beyond repair. He continued to race for several laps with the radiator leaking heavily till he was finally forced to leave the track. This was a disappointing finish for Densieski who had won the main event only a few weeks earlier and was fourth in total point standings at the beginning of the night.

After the final races in the Street Stock and Modified Divisions were over, Eddie's friends gathered in the pits to grill hot dogs and discuss, "what should have happened." "It's more than just racing that brings us together," Eddie explained, surveying the assemblage of family, crew members, girlfriends and sponsors, "we're all close friends and the race car is something we have in comomon." Many of the other drivers also stopped by which is something Eddie really likes about the sport. "Whenever I need a part I go to them and get it, whenever they need a part they come to me," said Eddie. "Almost everybody gets along really well, that's what makes it enjoyable."

A true lover of the sport, Eddie's face lights up and displays genuine enthusiasm when he talks about racing, almost belying the hardened competitor he has become over the past five years. "For me driving is like my own piece of the rock. I get total satisfaction out of it. Even if something goes wrong and we don't finish that night, it's still satisfying," Eddie said. "Your mind is not on any other thing, no matter what kind of a problem you have, your mind is only on racing," he said. Eddie also said he enjoys, "the closeness of the other cars, it makes it more exciting."

The Riverhead Speedway is a quarter mile track and the main event is twenty laps long. Later on in the season Eddie hopes to travel to the three-quarter mile track at Pocono for a forty lap race, and to White Lake for a one hundred lap race. "If you finish that one you know you built a good car," Eddie said.

For anyone thinking of taking up racing as a hobby there is one important point to bear in mind. You can only learn by doing. There are no practice times at the track. You just go out, get your car inspected, and race. "I thought I was flying and everyone was going right by me," Eddie said, recalling his first race. "I'll tell you one thing for sure, no one in the world can help you once you're out there, you're on your own," he said.

— Derek McCalmont

Opportunity For Scientist/Writer

The American Institute of Physics and the United States Steel Foundation has announced the sixteenth annual physics and astronomy science-writing award for scientists and journalists. The purpose of the award is to stimulate and recognize distinguished writing that improves public understanding of physics and astronomy. Each award carries a $1,500 prize.

Material submitted by scientists must be published between June 1, 1982 and May 31, 1983 in any recognized international, national, or local medium of communication such as newpapers, magazines, or books normally available to, and intended for, the general public. Purely scientific, technical and trade publications are excluded.

For scientists, the deadline for submission of material is June 10, 1983. For more information and an entry blank, write to the Public Information Division, American Institute of Physics, 335 E. 45th St., New York, NY, 10017.

To Help Your Lawn

If you are planning to either seed a new lawn or renovate an old one for next year, plan on starting that project during the late summer-early fall period. The cooler weather and favorable soil conditions that return at this time are ideal for better germination and establishment of the grass. Seeding now also means you'll have less trouble later with weeds, particularly crabgrass. Another advantage is that there is usually no need to water during this period to obtain germination of the lawn grasses.

Did you know?

In 1931, many people thought that a little radioactivity could be a healthful stimulant and spas in many countries were proud to advertise the natural radioactivity of their waters. You could take radium by capsule, tablet, compress, bath salts, liniment, cream, inhalation, injection or suppository. You could eat mildly radioactive chocolate candies, then brush your teeth with radioactive toothpaste. The manufacturers claimed that their nostrums would give relief from tuberculosis, tumors, rickets, baldness and flagging sexual powers.

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Did you know?

There were some 3000 physicists in America in 1931; there are over 30,000 now.

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Spencer R. Weart, "The Last Fifty Years — a Revolution?" Physics Today, 11/81

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Doug Humphrey

On center court are winners in the recent BNL Tennis Tournament: (from left) John Elmore and Cliff Schnepf (mens doubles), Gail Williams (mixed doubles, with partner Andy Kevey), Pat Roth (mens singles), Rose Brennan (womans singles), Marie Susa (womens doubles, with partner Pat Valli who was absent for the picture), and Andy Kevey (mixed doubles).

Spanish Dancing

The Maria Benitez Estampa Flamenca Spanish Dance Company will perform at Berkner Hall at 8:30 p.m. on Thursday, September 9. One of the world's great Spanish dancers and a performer of extraordinary flair and intensity, Maria Benitez will appear here with the Trio Fantasia, dancers Sandra Jimenez, Rafael Torres Moreno and Joaquin Ruis. The Company will dance a variety of all aspects of Spanish dance to the music of guitarist Pedro Cortes.

Tickets to the September 9th performance are $6 each. Only 500 tickets are available on a first-come, first-served basis. They can be purchased at the BERA Sales Office or from Gail Williams, Bldg. 460, Ext. 3338. Checks should be made payable to BERA. Please note no tickets will be sold at the door.

Use White Off Site

Occasionally some intra Lab mail gets run through a postage meter, thus incurring an unnecessary expense. Mail room personnel affix postage to 1500 pieces per day, and cannot be expected to pick out every one of the number 10 white business envelopes, with the BNL return address on them, destined for onsite mail drops.

To assist in preventing this kind of waste, distinctive envelopes are provided for intra Lab mail in a variety of sizes. Please use them.

Bowling

Individuals are still needed to form teams in both the men's league at Port Jefferson on Tuesday evenings and the mixed league at Shirley on Thursdays. If you are interested, contact Carol Beckner, Ext. 3138; Charlie Bohnenblusch, Ext. 4758; or John Connelly, Ext. 3284.

Swimming Races

Winners of last Friday's Pool Special were:

Ages 4,5 - lst, Jennifer Johnson; 2nd, Supna Bhaghat; 3rd, Karen Bebon. Ages 6,7 - lst Karely Beitel; 2nd, Debbie Tighe; 3rd, Shay Berant. Ages 8,9 - lst, Kathleen Holden; 2nd, Shira Gal; 3rd, Christy Bebon. Ages 10 and over - lst, Keith Holden; 2nd, Alyse Holden; 3rd, Karen Mills.

The Annual Water Carnival is being held today with games, contests, races and lots of prizes.

Arrivals & Departures

Arrivals

Arnold Levin ..... Energy & Env.

Departures

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

Donald B. Harris ..... Energy & Env.
John W. Humphrey ..... Accelerator
C. Dean Wheeler ..... Accelerator

Quilting Club

The monthly evening meeting of the BERA Quilting Club will be held on Tuesday, August 24 at 7 p.m. in the Recreation Building. Seminole patchwork will be demonstrated. Work on your own sewing projects and also share an evening of conversation. Everyone welcome.

Cafeteria Menu

Week Ending August 27, 1982

Monday, August 23		
Cream of tomato soup	(cup)	.65
	(bowl)	.75
Cheese omelet & 1 veg.		1.80
Breaded pork chop & stuffing w/applesauce		1.95
Hot Deli: Grilled sausage Reuben		1.90
Tuesday, August 24		
French onion soup w/croutons	(cup)	.60
	(bowl)	.70
Meatcakes & onions & 1 veg.		1.80
Savory baked chicken quarter & 1 veg		1.80
Hot Deli: BBQ fresh ham	(bread)	1.85
	(roll)	1.95
Wednesday, August 25		
Turkey gumbo soup	(cup)	.60
	(bowl)	.70
Seafood platter		2.15
Veal stew on egg noodles		1.95
Hot Deli: Breaded chicken fillet club	(bread)	1.85
	(roll)	1.95
Thursday, August 26		
Chicken vegetable soup	(cup)	.60
	(bowl)	.70
Turkey chow mein on fluffy white rice		1.85
Veal pattie Parmesan & 1 veg.		1.85
or w/spaghetti		2.05
Hot Deli: Baked ham	(bread)	1.85
	(roll)	1.95
Friday, August 22		
New England clam chowder	(cup)	.65
	(bowl)	.75
Hot wrap ham & cheese & 1 veg.		1.75
Beef & bean bake & 1 veg.		1.80
Hot Deli: Breaded fish fillet hero		1.95

Motorcycle Club

The Motorcycle Club will begin a weekend ride tomorrow morning at 9 a.m. at the Orient Point Ferry. Once in Connecticut, club members will ride to Sturbridge Village in Massachusetts. After an optional overnight stay there, the group will proceed to the the Old Rhinebeck Aerodrome, New York.

On Monday, August 23, the Club will take a short ride around Long Island after work. Anyone interested in participating in either of these trips should meet in the Cafeteria parking lot at 5:15 p.m. today. For more information, call Dave Derryberry, Ext. 4289.

SCCC Sign Up

Suffolk County Community College (SCCC) is offering Lab employees a choice of ten courses that can be taken at BNL during the Fall 1982 semester. Registration for this program is now in progress and will continue through August 26 in Room 112, Bldg. 460. Tuition is $34 per credit and there are no additional school fees. For more information call Renee Flack, Ext. 3316.

Softball

Leagues I and II

Ice Pops 10 — Six Pax 9
Phoubars 14 — Roga 3

David Jensen was 4 for 4 and Gary Goldstein had two home runs.

Blue Jays 14 — Moles 3

Juan Alvarez hit a home run and Frank Palmeri was 3 for 4.

Leagues III and IV

AMD 17 — Medical 8
Titans 16 — Random Errors 2
Lights Out 13 — Magnuts 12

Lights Out tied the score on G. Gradney's home run and took the lead on R. Greene's winning hit.

Electric Co. 20 — Dirty Sox 9

M. Bonnano was 5 for 5 with 2 home runs. W. Annand and B. Medina also had home runs.

League V

Survivors (won) — No Names (lost)
TNT (won) — Nads (lost)
E-Z Riders (won) — Turkeys (forfeit)

League VI

Mudville Sluggers (won) — Who's On First (forfeit)
The Source 19 — No Feedback 9
Who Cares 16 — Random Sample 11
Mole-Esters 19 — Underalls 9

Jayne Cutt had a double play.

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, 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 Personnel Placement Supervisor, Ext. 2882.

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

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1733. COMPUTER OPERATIONS POSITION (2 openings) - Requires AAS degree in data processing or successful completion of computer operations training program or equivalent experience. Will assist in the operation of a Hewlett-Packard 3000 computer. Shift work required. Management Information Systems Division.

1734. TECHNICAL POSITION (2 openings) - Requires AAS degree in electrical technology or equivalent and 2 - 5 years' experience in the assembly of electrical devices. Accelerator Department/ISABELLE Project

Alex Reben

When the Long Island International I.B.E.W. Softball Tournament gets under way on August 27, this is the team that will represent members of Brookhaven's I.B.E.W. local union #2230: (front row, from left) Juan Alvarez, Tirre Farmer, Frank Gaetan, Herb Harris, Bob Medina, Peter Eterno, Al Cordero; (standing, from left) Steve Okula, Jim Boomer, Tony Mendez, Charles Geonie (president of local union #2230), Walter Annand, John Frezza, Bob Danowski. During the three-day tournament at Baldwin Park in Nassau County, this team will play slow-pitch softball against other I.B.E.W. teams from all over the country. Has the team been practicing? "They better be," said Geonie, "or I told them I'm going to make George Steinbrenner look like an altar boy!"

1735. TECHNICAL POSITION - Requires previous electro-mechanical working experience, knowledge of proper hand tool use and willingness to learn vacuum techniques and instrumentation. Accelerator Department/ISABELLE Project.

1736. TECHNICAL POSITION - Requires AAS degree in mechanical technology or equivalent background and experience in the construction, testing and leak checking of ultrahigh vacuum systems. Will work in vacuum group on the development, installation and test of sophisticated vacuum systems. Accelerator Department/ISABELLE Project.

1737. PROJECT ENGINEER - (2 openings) - Requires BS or equivalent with a minimum of 5 years' experience as a design engineer and expertise in some or all of the following areas: machine, tool or production design; manufacturing and assembly; stress analysis and material selection; drawing board layout; supervision of drafters, coordination of shops and assembly technicians. Duties involve work on projects related to fabrication of colliding beam accelerator magnets. Accelerator Department/ISABELLE Project.

1738. RESEARCH ENGINEER - Requires MS in mechanical or civil engineering and familiarity with current analytical test methods and procedures relating to nuclear power plant equipment. Knowledge of ASME, ACI, AISC, IEEE and SRP codes and standards is essential. Previous experience with a large A/E firm doing dynamic response qualifications of nuclear power plant components is desirable as is a background in soil structure interaction of reinforced concrete structural designs for seismic category I structures. Department of Nuclear Energy.

Autos & Auto Supplies

80 MAZDA SPORT PICKUP - immaculate, stereo w/tape. 22,000 mi., 26 mpg local, 40 mpg hywy., cap. 727-7741.

79 HONDA HAWK - motorcycle, 400cc, almost new, $995. 588-0805 eves.

70 HONDA - 450cc, new tires & batt., luggage rack, 14,000 mi., $550. Lehn, 924-4749.

73 SUPERBEETLE - new engine, radials, paint, interior, exhaust & clutch, $2,000. Ext. 2896.

56 FORD - F-100 truck & parts; 1974 Camaro parts; 1968 GTO body parts; must sell, cheap. Don or Fred Paffrath, 499-1214.

CHEVY TRANSMISSION - 4 spd., clutch & bell housing assembly, asking $100. Artie, Ext. 2674 or 325-0743.

77 CHEVY NOVA - 6 cyl., std. shift, 73K mi. 234-3644 after 6 p.m.

75 PINTO SQUIRE WAGON - V6, auto, a/c, roof rack, $850. Jack, Ext. 7942 or 864-2236.

65 CHEVY - 283, good cond., $600. 475-5395 after 6 p.m.

WHITE SPOKE WHEELS - (4), Appliance, 16x5, 8 lug, with 4 Dunlop 12:00 tire s mounted, $50 ea. Dave, Ext. 2386 or 924-6575.

70 INTERNATIONAL SCOUT - 4 wheel drive, 4 cyl., beautiful cond., asking $2,000. 472-0055.

71 PONTIAC FIREBIRD - good cond., $400. 588-1754.

73 OLDSMOBILE 98 - $500. 281-6130 after 5:30 p.m.

DUNE BUGGY - rebuilt engine, excel. shape, street legal, $1,400 or best offer. 928-5225.

1965 VW BUG - rebuilt front end, good for dune buggy, motor needs work, $200. Joe, Ext. 5131.

73 FORD PICKUP - F-100, cap, extra wheels, 6 cyl., stand. shift, 103k mi., $1,500. Ext. 4547.

81 HONDA - CR80, hardly used, mint cond. 654-3457.

78 TRUCK CAMPER - 11-1/2' Aristocrat, loaded, mint cond., must sell. Mike, 878-1325.

79 PLYMOUTH HORIZON - front wheel drive, excel. cond., 4 dr., hatchback, $3,900. 924-5012.

76 AMC SPORTBOUT WAGON - auto, air, p/s, 51K mi., $1,900. AN5-3731.

GMC RIMS - (2) 14", $5; (1) 8:25x14 Steelride tire, $15. 473-4471.

71 CHEVELLE SS - Hugar orange, white stripes, new eng., body's excel., needs some work. Ed, Ext. 2674.

70 VW - Bug, good in & out, eng. needs work, asking $400. James, 473-2059 eves.

JENSEN SPEAKERS - coaxial, 5-1/2", $15 pair. J.P., Ext. 3403.

AUXILIARY TIRE - for Chevette, $2. 281-2002.

72 BUICK - Electra Limited, all power, excel. cond. in & out. Jack, Ext. 3040.

77 BMW - 530i, 50,000 mi., a/c, sunroof, leather, stereo, 6 cyl. fuel-injected OHC, never on salted roads, immaculate, $9,000. Peter, Ext. 3867.

74 RENAULT 12 - station wagon, 70,000 mi., 5 BR new radials, runs good, radiator needs work, $450. Miriam, Ext. 4581 or 928-1831.

75 BUICK - station wagon, very good cond. Miriam, Ext. 4881.

63 FORD - F500, 12' basket truck, call for appointment. Ext. 4835.

69 VW - runs well, $350. 281-2592.

69 CADILLAC - 65,000 mi., a/c, power seat, fm stereo, new parts, good cond., $600. Ext. 2111 or 282-4898.

77 KAWASAKI - 650cc, very good running, Kerker exhaust, elec. ignition, new tires, green, asking $1,200. 289-5744.

72 DATSUN - 1200, 4-sp., floor rotted, good for parts, $125. 589-9103.

66 VW - squareback, 7,000 mi. on rebuilt engine. Ext. 3064.

74 GREMLIN - 3-sp. std., 6 cyl., good mpg. 475-8504.

78 VW - Dasher wagon, 50,000 mi., fm stereo/cass., 4-sp., avail. Oct., $4,000. C. Olson, 289-8629 after 7 p.m.

66 CHEVY - Impala, 2 dr., 283, a/t, 31,000 orig. mi., in storage since 1973, $2,000. 589-9103.

TIRES - (2) E78-14, 1 w/5 hole mounting rim, $10; (2) 15" rims, 5 hole mounting, $5. Victor, Ext. 2395.

63 HOLIDAY TRAILER - sleeps 6, self-contained, very good shape, stove, oven, bath, 17-1/2 ft. Tom, 744-5910.

TIRES - (4) Good Year S/B/radials, P185-80R-13, good cond., call Monday. Barbara, Ext. 4960.

73 VOLVO - 164, am/fm, a/c, dark green, reliable, $1,950. 286-0422 after 6 p.m.

79 HONDA - dirt bike, Model 250R, 50cc, excel. cond., hardly used, $325. Ext. 3604 or 878-0516.

79 MGB - convertible, 31,000 mi., 2 tops & hood cover, new tires, am/fm stereo, excel. cond. 878-0516.

73 PINTO - wagon, 2 liter, 4-sp., body rusty, runs well, $300. Ext. 3715 or 689-8229 after 6 p.m.

78 DODGE - Aspen, 6 cyl., a/t, p/s, p/b, a/c, am/fm stereo cass., $2,750. 399-4972.

PLYMOUTH - 360 engine & auto. transmission, take it yourself, $250 for both. 698-6585 after 5 p.m.

70 FORD - Cortina, 4 cyl., runs good, for parts also, $150. Ext. 5385.

78 PLYMOUTH - Horizon Deluxe, 4 dr., a/t, a/c, p/s, p/b, am/fm, all new brakes, new S/B radials, roof rack, CB-side band, red, 55K mi., $3,295. Ext. 4028.

WHEELS - GM, 15x6, almost new, metallic blue paint, $60/set, $15/ea. Dave, Ext. 5211.

74 AMC - Ambassador, p/s, p/b, 4 dr., 58K mi., excel. running cond., $950. Yeh, Ext. 3986.

CAR STEREO - am/fm w/2 speakers, $65; Jeep soft-top boot, still in pkg., $20; Jeep tire w/rim, $15. Toni, Ext. 2907.

79 DATSUN - Sedan, 51,000 miles, like new, $3,700. 246-9305.

Boats & Marine Supplies

8' DINGHY - fiberglass, good shape, $175. 924-7163 or 286-9002 after 6.

12' SAILBOAT - Lockley Sea Witch, used one season, with main and jib, $900. 588-1671.

20' GARVEY - fiberglass, in water, excel., 95 hp Mercury OB, will demo., $1,500. 589-4327 eves.

15' CROSBY - 40 hp Envinrude motor, new battery, key start, Cox trailer, $1,750. 473-3777.

20' COOMBS GARVEY - 1979, clam boat, in water, $700. 286-9385.

20' BAYLINER - Liberty, 130 Volvo I/O, cuddy cabin, trailer, extras, $5,200. John, Ext. 4973 or 541-4792.

Yard Sales

MASTIC BEACH - 214 Church Dr., Friday-Sunday, August 13-15.

MASTIC - 62 Pentmoor Dr., bet. Titmus & Winters, no. of Sunrise, August 21-22. 281-8009.

SAYVILLE - 379 Greene Ave., August 19-21, August 26-27, 8 to 5.

LAKE PANOMOKA - Aug. 21&22, 10-4, nails to furniture. Wyandanch Trail, Nancy, Ext. 7996.

Free

KITTENS - Can you save a kitten by giving it a good home? Ext. 2980 or 289-0532.

Miscellaneous

BEDSPREAD - king sz., $60; bench, cast alum., $90; mirror, 18x24, $35; coffee table, marble top with brass legs, $50; dinner service for 12, $125; occasional chair, fruitwood with gold velvet seat and cane back, like new, $35; etc. 589-3269.

COLOR TV - 25", Sylvania, console, Mediterranean cabinet, good cond., $150. Ext. 4752 or 669-0549.

KITCHEN TABLE - formica, heavy, 42"x60", opens to 83", $18; highchair, $12; baby walker, $5. 727-1617.

ATARI CARTRIDGES - none higher than $18. Richie, Ext. 4254.

AIR CONDITIONER - 6000 BTU/hr, $75; dehumidifier, $25; fireplace doors, $20; rug sham/polisher, $15; gas dryer, $75; ping pong table, $10. Ext. 3715 or 689-8229.

FREEZER - upright, Jordan Co., good working order, 6'x3', $75. 924-6751 eves.

TV - Sony LV1901, console & VTR, TV fine, recorder needs work. Mike, 281-6070 after 5 p.m.

OUTDOOR TABLE - metal, with umbrella, $50; inner spring chaise lounge, & 2 alum. chairs w/padded cushions, $65. J. Candiano, Ext. 4144.

COLOR TV - $100; record player, $60; mixer, $15; & other items. Evelyn, Ext. 3395 or 282-3231 eves.

WATERBED - queen size, like new, heated, rust velour headboard, frame, $350. Ext. 2456.

SCREENHOUSE - for backyard or patio, 12 sections & extra roof, $95 firm. 281-8274.

EXTERIOR DOOR - 32", pre-hung, new, unfinished, never used, upper 3 sections glass, bottom wood, $75 firm. Ext. 2906 or 929-6189.

LP GAS FURNACE - 49,000 BTU, recess in floor or free-stand, like new, $100. Susan, Ext. 7235 or 399-1736 after 5 p.m.

FREEZER - upright, like new, $190; full size mattress; b/w console TV, cheap. 281-2899.

COCKTAIL TABLE - wrought iron, excel. cond., plexiglass top. 979-8788 after 6 p.m.

FREEZER - upright, small, $50; Brunswick pool table, excel., cost $1,700, must sell for $1,000. 281-6130 after 5:30 p.m.

WINGBACK CHAIR - Bennington pine w/ottoman, excel. cond., $150. Ext. 7690.

RANGE HOOD - Sears Kenmore Ductless, 30", stainless steel, , $25. Ruth, 667 7314.

POOL FILTER - Haywood-Perflex, up to 40 GPM w/motor, pump, excel., $90 or best offer. Ext. 2050.

TICKETS - (2), U.S. Tennis Open, for semi-finals, Sept. 10, box office price $25 ea., on sale for $20 ea. Gerry, Ext. 7544.

TELESCOPE - Edmund, 6" reflector, equatorial mount, elec. drive, 3 eyepieces, finder, perfect cond.; Heathkit HD-10 electronic keyer, self-completing dots & dashes, built-in sidetone. Kuper, Ext. 3311.

COLOR TV - G.E., 19", $200; Keystone Everflash camera, $20. 281-2002.

ROTOTILLER - 36" wide, for yard tractor, never used, was $350 asking $200; rotary spreader, 1/2 bu. with PTO shaft for tractor use, used 2 hrs., $50; Wright 19" reciprocating saw, very good cond., needs carb. adj., orig. $319, asking $75. 929-4522 after 5 p.m.

STEREO AMPLIFIER - Bogen, excel. cond., like new, 35 watts per channel, $60; upright organ, Magnus, model #535, 42 watts, $60; Siltronix 0-1500 watt meter, 2-50 MHZ, $50. 751-6418.

ROCKER - antique oak, comb-back, Windsor style from PA, must sell, $100 or best offer. Theresa, Ext. 2907 or 732-2570 eves.

SHUTTERS - wood, indoor, 4 sets, each section 9"x20" incl. hardware, $5/set, $15 takes all. Victor, Ext. 2395.

HEADBOARD - maple, for twin bed, $35; Corelware, set for 8 plus some. 744-1206.

QUARTZ HEATER - new, excel for saving energy, very reasonable. Miriam, Ext. 4881.

MEN'S BIKE - 10 speed, new cond., $100; Tappan wall oven, gas, $30; gas cooktop, $30; Hotpoint portable dishwasher, $50. 929-4886 after 5 p.m.

SOFA - 2 piece, 96", blue velvet, excel. cond. Al, Ext. 4473 or 581-2961 after 5 p.m.

CREDENZA - stereo, TV, solid oak, excel. cond. Phil, 363-2070 eves.

MAPLE SYRUP - from my family's farm in Vermont. Peter Wanderer, Ext. 7687.

STEREO - cassette deck, Sony TC-186 DS w/Dolby NR, amplifier, 25w/channel, speakers, excel. cond. Saha, Ext. 4339 or 924-6139.

HONEY - new crop, local wild flower, unfiltered, unheated, $1.75 lb. George, Ext. 2419 or 744-3289.

BICYCLE - 20" wheels, in working order, $100. Roger, Ext. 3817 or 3181 eves.

PUMP - Burke Two-Stage, 13 gpm, deep well, 3 yrs. old. Harris, 475-8504.

POOL COVER - Deluxe, above ground, 21 ft., used 1 season, new $90, asking $50; Deluxe pool ladder, above ground for 4 ft. depth, used 1 month, new $80, asking $50. 585-1454.

SIAMESE KITTENS - avail. about Sept. 1, reserve one now, $55. 744-5096.

STEREO EQUIPMENT - Dynaco Pat-4 & stereo-120, 120 watts total output, $150. Pete, Ext. 7627 or 581-1773.

PRINTER - TRS80, Model 111, 16K, cassette drive, all cables, tapes, $1,150. Tom, 744-8440.

IRRIGATION PIPE - (2) 20' alum. lengths, standard farm hookup; (2) 12" risers, no sprinklers. 727-0505.

ELECTRIC RANGE - GE, cabinet top w/attached overhead oven, avocado, $50. Ext. 2909 or 473-3202.

SECTIONAL COUCH - contemp., L-shape, brown velvet, $325; coal stove, used one season, heats 1,200 sq. ft., new $900, asking $500; Hardman piano, dark wood, 6 yrs. old, $600; couch & loveseat, brown velvet, flame stitch, $400. 286-0422 after 6 p.m.

CHAIN SAW - 18", $100; 20 gal. fish tank w/stand, plus many extras, $50; Hobby Demmel w/sander attachment, $40. Carol, 289-3917.

GOLD RING - 14 kt., 3/4 Cubic Zirconia (pear shape), w/genuine rubies on each side, new, never worn, $75. Linda, Ext. 7745.

ICE CREAM FREEZER - chest type, 2 dr., −25°F, old but works, $100. Joe Medina, Ext. 7636.

PLAY PEN - like new, $25. 924-0960.

DINETTE - 5 piece, $125. Jackie, Ext. 2400 or 331-1665.

ELECTRIC GUITAR - & case, amp, extras, very good cond., $250. Edward, 363-5170.

COLOR TV - 13", used for 10 months, $150; stereo set, used for 7 months, $60. Ext. 2719 or 3110 after 6 p.m.

ROCKER - Antique oak, comb-back Windsor style, from PA, must sell, $100 or best offer. Theresa, Ext. 2907 or 732-2570 eves.

FURNITURE - moving must sell living room set & kitchen set, also other furiture. 821-9453.

SINGLE BED - $40; mower, $10; rugs, $10; lady's umbrella, $5; electric blankets, $15; linens for bed, $10, moving. Gene, Ext. 4393 or 924-3419.

STEREO - JVC PC-W5J, portable component system, am/fm, SW, 14W per channel, brand new, only $200. Chang, Ext. 4086.

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 Sale

MEDFORD - condo, Birchwood at Blue Ridge, 15 min. from Lab, 3 bdrms., many extras, facing golf course, $50's. 698-7213.

MASTIC BEACH - 4 bdrm. cape, large l/r, d/r, eik, util rm., gas hot water & cooking, full porch, low taxes, near stores & bay, Farmer's 8-1/2% mortgage, 80x100 prop., (adjacent 80x100 avail., reasonable), $24,000. 281-0360 after 6 p.m.

WADING RIVER - custom built, 4 bdrm. colonial, 2 baths, d/r, den, f/p, 2 car garage, full bsmt., priv. beach, Ext. 7727 or 929-4631.

YAPHANK - 3 bdrm. ranch, full bsmt., 2 lrg. rms. on rear, 1/2 acre, beautiful, 7-1/2% assum. mort., $13,700. 924-6895.

For Rent

SHIRLEY - furnished 1 bdrm. apt. walk to beach, laundry facilities, working individuals only, $400/mo., all util. incl. 399-0327 days & weekends.

PATCHOGUE - studio apt., pvt. entrance, full facilities, non-smoker. 289-7921 after 5:30 p.m.

MASTIC BEACH - furn. 3 bdrm. ranch, lovely location near bay, well insulated, prefer Sept.-June, will consider longer term, $450 + util. Ext. 3761 or 399-3609.

N. PATCHOGUE - new studio apt., private entr., kitchen, bath, cable hook-up, furnished. Ken, Ext. 5042 or Carol, 289-3917.

MIDDLE ISLAND - 1 bdrm. apt., central air, w/w carpet, club house, avail. Oct. 1, $345. 924-9215.

Car Pools

ELWOOD - E. Northport area, one driver needed for 5 man pool. Fred, Ext. 4407.

MASSAPEQUA/FARMINGDALE - and west, leave from vicinity of exit 32, Southern State Pkwy. Plotkin, Ext. 4717.

SETAUKET - Old Town Rd. & Sheep Pasture, to join existing pool. Rolf, Ext. 5506 or 928-7328.

BELLPORT - existing 3 person car pool looking for new members. George, Ext. 7654.

WANTAGH AREA - need member to complete 5 man, on-time car pool, drive 1 day a week. Ext. 4351.

Lost & Found

FOUND - Dog, Husky mix, on 8/17 near Bldg. 526, 1 yr. old, 20" tall, no collar or tags, friendly, likes bikes, needs loving owner & attention. Bill, Ext. 4938.

Wanted

HOUSE - to rent, 3 bdrm., vicinity of Bellport Village. Ben, 286-0654.

ZORK I - adventurer to share experience. Pete, Ext. 3328.

8' FT. BOX - in good cond., for 1971 Ford pickup; vendors for church flea market on Sept. 18. 727-1617.

UTILITY TRAILER - with 4' bed, 6' long, around $100 to spend; someone to repair old (1939) table top radio, its like a member of our family. 924-6751 eves.

CEMENT MIXER - broken but repairable, gasoline or electric. Dave, Ext. 2386 or 924-6575.

TIRES - C78-13, good to fair cond. Susan, Ext. 4267.

CAR SEAT - for young child, prefer GM toddler seat. Artie, Ext. 2697 or 325-0743.

APARTMENT - furnished, in Rocky Point, for senior citizen, walking distance to 25A, Sept. occupancy. 928-2803.

MATURE MALE - seeking to share apt. or home with same. Doug, Ext. 3429.

SHOP MANUAL - for 1971 Plymouth Valiant Scamp. George Hrabak, Ext. 3536.

AUTO - small size, under $1,200. Ellen, 281-5827 after 6 p.m.

BABYSITTER - to mind 9 yr. old before & after school, Sylvan Ave. School District. Terri, Ext. 2484.

OUTBOARD ENGINE - 30-35 hp, in good cond., reasonable please! Bill Sanchez, Ext. 3848 or 585-2693 eves.

ENGINE DOOR - for '73 VW Super Beetle. Toni, Ext. 2907.

Services

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

JOE'S HOMESTYLE CATERING - very reasonable prices, Italian favorites for up to 100 people, 10% Lab discount. 744-1367 or 744-2870 after 5 p.m.

FLOOR WAXING - & floor stripping, reasonable rates. Bill, 331-4641.

HOME IMPROVEMENTS - vinyl and alum. siding, alum. trim, roofing, gutters & leaders, custom carpentry, free estimates. Charlie, 744-3160.

TRUCK FOR HIRE - moving, cleaning, and other misc. work, Lab discount. 281-5445.

EXTERMINATING - licensed men, all phases of pest control & termite specialists, no job too small, free estimates. 281-5445.

PLUMBING AND HEATING - Lab discount. John, 654-8189.

ASPHALT PAVING - and sealing. Bob, 475-4382.

SECRETARIAL SERVICES - business and personal correspondence, forms, manuscripts, WP, IBM, excel. typewriter, accurate. Collette, 744-2816.

CHILD CARE - in child proofed home with nursery school atmosphere, near Lab. Kathy, 929-8809.

VERTICAL BLINDS - miniblinds, wovenwoods, shades, shop-at-home service, discount prices, complete installation. Tony, 928-9241.

FIRESIDE CHIMNEY SWEEPS - $10 off thru Sept. 15, fireplaces, wood, coal & oil flues, fully insured. Bill, 584-6425.

BABYSITTING - mother will babysit my home, days, 5 min. from Lab, fenced yard. Fran, 399-4822.

HOUSE PAINTING - inter./exter., professional quality materials, insured. Bob, 289-7657 after 6 p.m.

GENERAL CONTRACTOR - carpenter, extensions, dormers, garage, conversions, basements, decks, kitchens, licensed. Jim, 698-2501 after 5 p.m.

CARPETS INSTALLATION - repaired, quick, dependable service, free estimates. Jim, 821-0187 after 5 p.m.

CHILD CARE - my home in Bellport, lots of TLC, any age, infants welcome. 286-2435.

TILE SETTERS - ceramic, quarry tile, no job too small, free estimates. E. Harris, 475-6460.

CLEANING SERVICE - office, home, apt., work by owners, free estimates, references. Ray, 732-4885 eves.

TYPING SERVICES - resumes, theses, reports, general correspondence, etc. 744-5387 after 5:30 p.m.

KAYAK LESS ONS - basic thru Eskimo rolls, local bays & creeks. Tim, 281-7873.

ALARM SYSTEMS - burgular, fire, installation, repair, reliable, reasonable. Custom Systems, Richie, 399-3806.

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