

International Village on Site:

This is the House the Danes Will Build

The apartment area, an international village of visiting foreign scientists and guests, will soon contain a village of international houses. As an extension of the case studies of energy efficient houses, the Architectural & Building Systems Division of DAS has invited several countries each to erect an innovative version of a 1500 square foot energy and material efficient, affordable home. The first demonstration houses will be erected by Denmark, Italy, Japan, and Sweden, each on a half acre plot on East Street. The Danish Building Export Council of the Danish Ministry of Housing hopes to assemble the first house on site by Christmas.

Ralph Jones and the Architectural & Building Systems Division will monitor the Danish house, and the other international houses of the village to find out how and why they are so energy efficient. Each country is donating its house; when the testing and tour programs are completed, the international houses will become part of the BNL visitor housing.

"The idea of the international housing village came from Jones's program," explains DAS associate chairman Tom O'Hare. "The energy efficient homes we have monitored so far have been built by ingenious and enterprising designers and builders with very specific requirements. As a result, these houses are generally beyond the means of the middle class.

"Unlike the U.S., western Europe and Japan have mass produced carefully constructed, energy efficient homes that average citizens can afford," says O'Hare. "We thought that an international housing village would introduce U.S. home builders and buyers to new housing designs, materials, and construction methods. The village may stimulate interest, and help create demand for and suppliers of affordable, energy efficient homes.

"The international housing village will facilitate technology and cultural transfer," continues O'Hare, "And America is the biggest market for superior products from other cultures. We hope that the U.S. housing industry will gain from their interaction with the foreign architects, engineers, and builders, and incorporate the positive features of the international village homes in their construction. Partnerships between U.S. and foreign housing corporations could be formed to facilitate the technology transfer. Our aim is to import new ideas and technology to make the U.S. home construction industry more efficient."

During a meeting at BNL on March 1, representatives of the International Relations Division of the Danish Ministry of Housing, the Danish Building Research Institute, the Danish Building Agency, the Danish Building Export Council, and the Danish Consul's Office presented preliminary specifications of their house. "The house incorporates Danish design, good acoustics and lighting, and low energy consumption," explains Ib Steen Olsen of the Danish Building Agency. "It is shop fabricated, and easy to transport and erect." "It is designed for a typical family, and can expand and contract with the family," adds Henning Christensen of the Danish Ministry of Housing. "It is one example of the new techniques

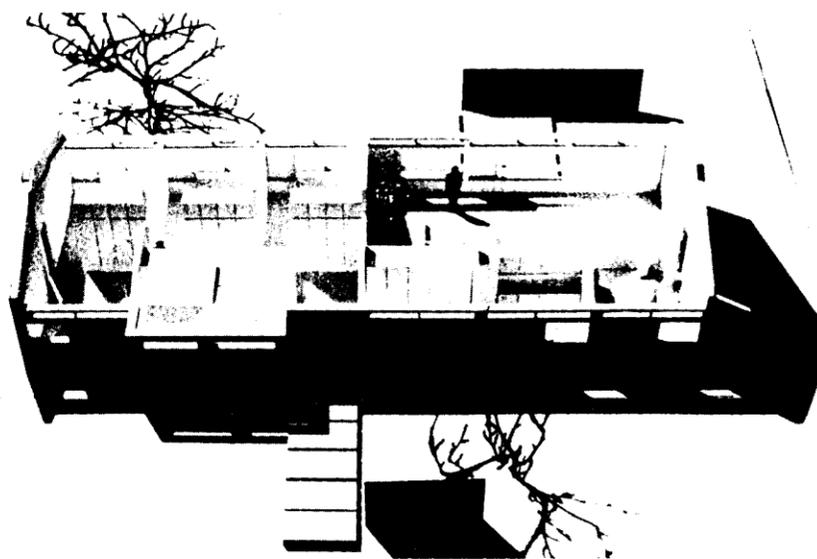
and components already used in Danish housing."

The one story, wood frame building is the Danish interpretation of a ranch house. This preliminary model is 1800 square feet and costs approximately \$80,000 to build; the Danes plan on reducing the square footage to 1500, and dropping the cost as well. Horizontal and vertical lines and planes dominate the design. Airtight panels of interlocked tongue and groove boards compose the outer walls. The concrete foundation consists of fiber-reinforced concrete slabs. The low-pitched gable roof with eaves is composed of material suitable to local conditions.

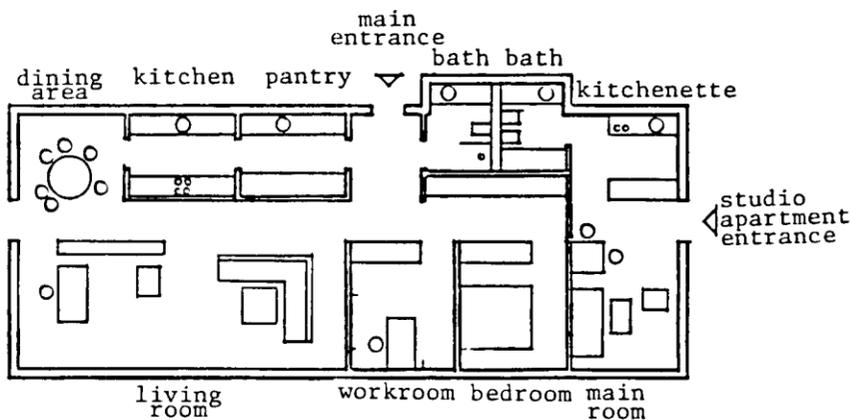
Mineral wool insulation having a resistance to heat flow value (R-value) of 29 is used in the outer walls; R-44 mineral wool insulation is used in the roof. (The Brookhaven House has R-27 walls, and an R-38 roof.) The insulation for the Danish house is a traditional material formerly used in the U.S. which has been processed into new forms by the Danes. It is not toxic, does not release any fumes, does not burn, and does not absorb moisture. Mineral wool also provides good acoustics in the house.

The house takes advantage of the sun for heating and day lighting. A continuous skylight of triple glazed glass running the length of the roof ridge, and a continuous triple glazed window along the top of the perimeter walls allow natural light to illuminate 20% of the floor area. This high, continuous window has a reflecting ledge which bends incident light toward the angled ceiling which then directs the light into the rooms.

Thirty percent of the cost of this preliminary model is spent on the roof construction, and the computerized heating and ventilation system incorporated within it. This programmable system will be simplified to bring the house's cost down in the final model. The heating and ventilation operation allows half an air



Architect's model of the basic layout of the Danish house.



One of the six suggested floor plans for the Danish house. In this plan, the house is divided into the main living quarters, and a separate studio apartment.

change per hour, and uses a heat recovery unit having a 60% efficiency in exchanging fresh air for indoor air. The heating balance is more equally divided among heating and ventilation equipment, solar gains, human activity, and appliance use than in a conventional home.

The six flexible floor plans for the house were outlined by architect Poul Svane of the Danish Building Export

Council. The layouts include a main entrance and two side entrances, a kitchen connected to a pantry, a dining area between the kitchen and a living area, a master bedroom suite with its own bathroom and an additional room, another bathroom, and two other rooms. Suggested uses for the three spare rooms are additional bedrooms for children, a nursery, (Continued on page 2)

NPSS Honors Radeka

For the first time since 1978, the Nuclear and Plasma Sciences Society (NPSS) of the Institute of Electrical and Electronic Engineers has seen fit to award its annual Merit Award. In an unusual move, according to Professor Marion Hagler, chairman of the Awards Committee, the Society will present the 1983 Merit Award both to Veljko Radeka, BNL, and to Frederick Goulding, University of California at Berkeley.

Radeka, head of Brookhaven's Instrumentation Division, is cited "for contributions to the basic understanding of the effects of noise in nuclear electronics, and for the development of position sensitive detectors for applications including high energy physics."

Position sensitive detectors determine the point of interaction of a particle in the plane or volume of the detector, and sometimes the direction of particle incidence. They also provide information about the energy and type of the particle. Radeka explained that "the accuracy of the detectors in measuring these quantities is affected in most instances by electronic noise. Thus, the study of



Veljko Radeka

basic noise processes is essential for development of new detectors."

As a recipient of the award, Radeka will receive \$1,000, a certificate and a plaque engraved with the citation. Formal presentation of the plaque

will be made at the 1984 Nuclear Science Symposium in Florida this fall.

Veljko Radeka received the Dipl. Eng. degree in Electrical Engineering in 1955 and a Doctorate of Engineering Sciences in 1961 from the University of Zagreb, Yugoslavia. He worked on instrumentation at the Institute Ruder Boskovic in Zagreb and was a Docent at the University of Zagreb. He came to BNL in 1966 and has headed the Instrumentation Division since 1972. He is a Fellow of the Institute of Electrical and Electronic Engineers.

Also, Veljko Radeka and William A. Higinbotham (DNE) have been awarded an IEEE Centennial Medal and Certificate from the Nuclear and Plasma Sciences Society. The Centennial Medal was established to memorialize the Centennial year by honoring members of the Institute who have made significant contributions to the profession through outstanding records of technical accomplishment and/or professional service. Thirteen members were so honored.



BNL's Peter Daum at the ground sampling site at Powassan, Canada. Back in the woods is a trailer which housed experimental equipment.



The BNL researchers used a Canadian-owned DC3 to collect samples and make measurements aloft. As usual Cy Fink brought along his camera to record the trip.

North Bay Operation

How's the winter in North Bay, Canada? Cold, cold, cold. A team of Brookhaven researchers can attest to that. They recently returned from six weeks in North Bay, 200 miles north of Toronto, where they were studying processes in winter storms that lead to acid snow.

From January 16 to February 24, Peter Daum, Cy Fink, Dan Leahy, Tom Kelly, Bob McGraw, Bob Doering, Paul Klotz, Gene Ferreri and Steve Schwartz, all from the Department of Applied Science, joined forces with Canadian researchers from the Atmospheric Environment Service of Canada. The joint project involved collecting samples of cloud water and precipitation and measuring chemical concentrations in the atmosphere over a 150 square-mile area around

North Bay. Two airplanes, a ground site and a mobile van were operated jointly by the Canadians and the Americans. Most of the airplane sampling was done in clouds and snowfall.

According to Peter Daum, who is in charge of the project, the chemical composition of snow is different from rain. That could be due to a variety of reasons, such as a different mix of chemicals in the winter than in the summer, or different pathways for the formation of acids in the two seasons.

Although thorough analysis of the data will take a couple of years, one preliminary finding is that the concentration of materials which produces acids in the winter is higher than the scientists expected.



Canadian scientist Mohammed Wasey checks the DC3 pylon, which carried instrumentation for cloud physics measurements.

Danish House (Cont'd)

playroom, workroom, or study. A studio or two room apartment can be walled off from the rest of the house. Since perimeter walls bear the load of the house, the interior walls can be moved after the building has been erected.

Components of this Danish house are carefully manufactured in a factory, and assembled into a house on a site. The standardized materials and prefabricated units used in fabricating the house are commonly used in Denmark. Prefabricated units, like windows, doors, and stairs, comprise about 20% of the materials in a conventionally built new home. However, to make sure that these units can be easily installed, builders leave large holes in the structure which later create air infiltration problems in conventional houses. The Danish modular system has eliminated such problems by designing special elements and interlocking units, cutting materials to exact dimensions, precisely assembling them in the factory, and sealing the units together on site.

The house components are packed in seven shipping containers, delivered to the site, and set up according to a step-by-step plan. In one week, half a dozen people using a small crane can erect a Danish house on a prepared site. These shop fabricated houses use more costly materials, are of better quality, and are less expensive to make and erect than conventional homes of the same purchase price fabricated entirely on a site.

"When houses are made in the factory, manufacturers can have better quality control than can builders in the field," says O'Hare, "And the labor can be more productive and efficient, therefore keeping labor costs lower. However, when you talk about

prefabricated houses with Americans, we think of mobile homes and trailer parks. Mobile homes, though they are very affordable, are not energy efficient, and generally are not made of the best materials. The western European and Japanese shop fabricated homes are not mobile homes. They are better built than conventional houses, and are affordable without sacrificing energy and material efficiency."

"This house is an honest expression of an industrialized house," comments Jones. "From an architectural point of view, it makes no attempt to look like something it is not, and in my opinion it is quite handsome. It is a machine for living, and an aesthetic statement of the shop fabrication process. If they want to build or buy their own affordable and energy efficient housing, people will have to seriously consider this type of construction."

— Marsha Belford

PC User Seminars

The PC/Workstation User Group will meet on Tuesday, March 27 at 10:30 a.m. Dave Stampf will talk about "UNIX on the PC."

A demonstration of INTEL Corporation's Data Base Information System, iDIS, will be given on Tuesday, April 3 at 10 a.m. iDIS is a microprocessor system with powerful communications and data base facilities which can be used to connect to personal computers or terminals as a stand-alone data base machine, or interface with a host computer running System 2000, thus making distributed data bases feasible.

Both seminars will be held in the Applied Mathematics Department Seminar Room. For more information, contact Kurt Fuchel, Ext. 4116.

Spring Comes Eggs-tra Early

Spring arrived this year on the 20th of March, not as it usually does on the 21st. That's because this is a leap year, when an extra day was added to February.

The first day of spring brought out a bit of spring fever in some people. As reported by several TV and radio stations and at least one area newspaper, some folk celebrated the first light of spring by standing eggs on end, a stunt that supposedly can only succeed on the spring equinox.

Here is what a few Brookhaven people had to say about the standing eggs:

It's foolishness. Is this April 1 yet? —Neil Baggett, Physics

It doesn't make any sense. There may be some very small variation of gravity through the year. But whatever it is, it's undetectable...certainly way below what anyone can measure in the lab.

—Cesar Sastre, Nuclear Energy

I'll tell you a trick for standing up an egg, at any time of the year. Moisten the egg's bottom and lightly touch it to salt before setting it down.

—Robert Mills, Physics

Lab-wide Drill: What's Your Part?

On Wednesday, March 28, the Laboratory will hold an emergency drill. This year, employees will not be asked to leave the site. Instead, here is what you do:

- At about 2 p.m., the site airhorns will sound. At the same time, phone calls will be made to all department and division offices, which will in turn notify their employees.

- Whichever signal you get first, immediately leave your work area and go to the assembly point in your building.

- When all the people in your building have been accounted for, you can go back to work. There will be no all-clear phone call. For you, the drill will be over when everyone in your building has been logged in at the assembly point.

While your part in the drill will likely take no more than 15 minutes out of your work day, other groups around site will be practicing their emergency jobs, under the eye of observers.

The scenario for this drill, as in previous years, will begin with an incident at the High Flux Beam Reactor. Responding to the "emergency" will be the Safeguards and Emergency Services Division, Reactor Division, Safety and Environmental Protection Division, the Public Relations Office, Staff Services, and certain individuals from other BNL groups.

New Listings In '84 Directory

The 1984 BNL telephone directory has a new section on pages 83-89. It is called Alphabetical Functional Listings and it is a detailed listing of the offices and services on site. The idea was first proposed by John Bland (MIS) and was approved for a cash award under the Employee Suggestion System. His listing has been updated by the Staff Services Division, and in it you will find telephone extensions for everything from Language Translations (Technical), to Plastics - Machining - Forming. So check the Alphabetical Functional Listings when you are looking for a particular service.

Buy A Bond!

U. S. Savings Bonds have a number of features which make them a good savings plan and an attractive investment:

- Bonds held five years or more receive a variable interest rate that is adjusted each year in May and November to reflect current market conditions. The current rate for the period November 1, 1983 - April 30, 1984 is 9.38%.

- Also, bonds held for five years or more have a guaranteed minimum rate of 7.5%.

- Interest on Savings Bonds is exempt from state and local income taxes.

- Federal income taxes can be deferred until the bond is redeemed or reaches final maturity, whichever comes first.

- Bonds can be readily converted to cash if an emergency arises.

The Lab makes it easy for you to pay for them. Each payday you can have any amount you wish set aside, via payroll deduction, to go toward the purchase of the bonds you have selected.

To start saving for Savings Bonds, call Payroll at Ext. 2470, or drop by their offices in Bldg. 134J, and ask for the U.S. Savings Bond Payroll Savings Authorization form.

BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

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Peter Horton

You might have seen this giant tree digger in operation this week. It was rented for the special job of transplanting nine trees that line Brookhaven Avenue near the Cafeteria. The trees were in the path of a new steam main that will be put in to service buildings on the west end of the site, as well as the new firehouse to be built later this year in the open field at the corner of Brookhaven and Upton. Grounds maintenance crews worked during the week to get the trees moved, once the tree digger did its job. The machine dug up root balls seven feet in diameter, five feet deep. The transplanted trees included two maples that had shaded the front of the old theater building since the late 1940's.

Pianist Agustin Anievas at Berkner

American pianist Agustin Anievas will present a recital at Berkner Hall on Tuesday, April 3, at 8:30 p.m. Mr. Anievas has been heralded by The New York Times as "a lion of the keyboard."

Born in New York City of Spanish-Mexican descent, Anievas has established a major career as a brilliant pianist. During the 1980-81 season, his appearances included a recital at Carnegie Hall as well as performances at Lincoln Center. Highlights of this past season included an appearance with the National Orchestra Association at Carnegie Hall during its Golden Jubilee and participation in the Florida Philharmonic's Beethoven Festival, in which he played the five piano concerti and the Triple Concerto.

For his recital at Brookhaven, Anievas has chosen a program of Bach, Beethoven and Brahms. He will play Bach's Partita No. 1 in B Flat; Beethoven's Sonata in F Minor, Op. 57 (Appassionata); and Brahms' Variations on a Theme by Paganini, Op. 35, Bks. 1 and 2.

Tickets will be sold at the door. General admission is \$7; students and senior citizens, \$4; and those under 18, \$3.

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to New York City on Wednesday, April 4. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is \$5.00; children under five years ride free.

Reserve a ticket by sending your fare through the U.S. mail to BNL, P.O. Box 322, Upton, New York 11973. Please do not send cash. Checks or money orders, payable to BNL, must be received by Thursday, March 29. Put the date of the trip, your BNL life number and your phone number on the back of your check or money order. Your tickets will be given to you at the railroad station on the day of the trip. Refunds will be made only if cancellations are received by the Monday morning preceding the trip.

I.B.E.W. Meeting

Local 2280, I.B.E.W. will hold its regular monthly meeting on Monday, March 26, at 6 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting for shift workers at 2 p.m. in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the president's report.

CREF Values

March	60.75	April	65.12
May	65.07	June	67.12
July	65.43	August	66.13
September	67.02	October	65.95
November	67.06	December	66.84
January	66.50		

February \$64.21

Service Ads To Resume

The hue and cry that resulted when service ads were pulled from the Bulletin last year has not died down. A number of employees regret the loss of this section and do not feel the posting of such ads at the BERA Sales Office has been effective. Employees say they miss the opportunity the Bulletin ads afforded to do business with other BNL employees.

Therefore, the Bulletin will run a list of services once each month on the first Friday of the month, beginning on April 6. Those eligible to advertise in this section include employees and their immediate families, i.e., husbands, wives, sons and daughters, only.

The intent of these ads is to advertise personal services performed on a part-time basis, e.g., babysitting, lawn mowing, painting, odd jobs, etc. The purpose is not to give free advertising to established businesses which can afford to pay for ads in local papers.

The editor reserves the right to reject ads considered inappropriate. The employee placing the ad must appear in person at the Bulletin office, Bldg. 134A, and fill out the form.

Volleyball

Standings as of 3/19

Mixed League A Division	
Dinkers	5-1
Up Fagrabs	5-1
Semi Tough	4-2
Teddybares	4-2
Nuts and Bolts	3-3
Mixed Ups	2-4
EPO's	1-5
TNT	0-6

B Division	
Phoubars	5-1
Screwballs	4-2
Servers	3-0
Bottoms Up	3-0
Excitons	3-3
Chungas Revenge	2-4
CRAW	1-5
Quirks	1-5

Basketball

Box Scores — 3/15/84

Game 1	
Hollywood — 79	Coasters — 67
E. Meier — 10	E. Taylor — 6
L. Walcott — 28	R. Doty — 14
L. Lawrence — 6	M. Williams — 19
D. Norstrom — 17	M. Fulkerson — 16
B. Woodson — 12	K. D'Amico — 12
R. Kowalski — 6	

Game 2	
Longshots — 74	Runaway — 78
L. James — 23	T. James — 28
S. James — 5	R. Banks — 3
B. Johnson — 10	S. Gilbert — 14
J. Garrison — 8	G. Shephard — 6
D. Harris — 6	B. Johnson — 24
R. Seymour — 10	G. Smith — 4
D. Hall — 12	

Team Standings

Hollywood	7 — 1
Longshots	5 — 3
Runaways	3 — 5
Coasters	1 — 7

Medical Services

Effective March 30, at 5 p.m., medical care will no longer be available outside of regular working hours. Routine employee health services will continue to be available from the Occupational Medicine Clinic during regular working hours only, Monday through Friday from 0830 to 1700.

In case of a medical emergency, call Ext. 2222. Services of the Fire/Rescue Emergency Medical Technicians are always available.

Back-to-work slips and other employee health matters should be anticipated and the OMC notified during working hours. Your personal physician or the nearest hospital should be consulted for non-emergency health care. For assistance which is not covered in the above, telephone the BNL police at Ext. 2238.

Cooking Exchange

Dishes from Mexico, Venezuela and Guatemala will be featured at the Cooking Exchange meeting on Wednesday, March 28. Frijoles negros (black bean stew), chicken in green sauce, and corn custard ice cream are some of the dishes to be served. All interested cooks are welcome to watch and ask questions during the demonstration.

The meeting is at 12:30 p.m. in the Recreation Building. Admission is \$1 and babysitting is provided at 50¢ per child. Call Dee Polychronakos, 744-3578, or Jane Shero, 286-0925, for more information.

Afro-American Club

Election of officers for the Afro-American Culture Club will be held on Thursday, March 29, from 11:30 a.m. to 1:30 p.m. in Berkner Hall (at the desk outside the auditorium). The nominees are:

President: Berthel Becton
Treasurer: Gregory Bagley
Fred Nesbitt

Arrivals & Departures

Arrivals

Chong-Sa Lim Physics
James M. Meier Accelerator
Karen M. Mosoff Staff Svcs.
Danny Padrazo Jr. Physics

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:
Pamela M. Brown Accelerator
Amanda L. Harrison Medical
Joseph Mammina Central Shops

Phys Rev Opening

Editorial Assistant: 10 - 12 hours weekly. Requires B.A. degree, science background helpful, varied duties for editorial processing of manuscripts for physics journals, on-going maintenance of computer index file. Position requires person with concern for detail, thoughtful and inquiring attitude. Resume to Personnel Department, Physical Review, P.O. Box 1000, Ridge, N. Y. 11961.

Cafeteria Menu

Week Ending March 30

Monday, March 26	
Spinach egg drop soup	(cup) .65
	(bowl) .85
Beef liver & onions w/1 veg.	1.80
Fish Newburg on rice	2.00
Hot Deli — Roast turkey breast	(bread) 1.95
	(roll) 2.10
Tuesday, March 27	
Minestrone soup	(cup) .65
	(bowl) .85
Veal patty Parmesan & 1 veg.	1.95
or w/spaghetti	2.15
Salisbury steak & 1 veg.	1.85
Hot Deli — Breaded chicken cutlet	(bread) 2.00
	(roll) 2.15
Wednesday, March 28	
French onion soup	(cup) .65
	(bowl) .85
BBQ spare ribs & 1 veg.	1.95
Beer batter fish filet & 1 veg.	1.90
Hot Deli — Sandwich steak w/peppers & onions	(bread) 1.95
	(roll) 2.10
Thursday, March 29	
Cream of tomato soup	(cup) .65
	(bowl) .85
Beef teriyaki w/1 veg.	2.20
Ham & broccoli crepes w/cream sauce & 1 veg.	1.85
Hot Deli — Monte Cristo	1.90
Special	
Top your own baked potato	
1 baked potato w/cheese sauce & chili with choice of 2 other toppings	.75
.25 each additional topping	
Friday, March 30	
Manhattan clam chowder	(cup) .65
	(bowl) .85
Veal ragout on egg noodles	2.00
Breaded fish filet & 1 veg.	1.85
Hot Deli — French bread pizza	2.00

Bowling

Red/Green League

High games were bowled by M. Israel 242, J. Morris 226, H. Arnesen 225, R. Jones 210, W. Rasmussen 208, N. Combatti 202, J. Medaris 201.

Pink League

The Survivors are in first after position night. D. Johnson rolled at 191/187, M. Reynolds 184, M-G Meier 180, S. Moore 180.

White League

J. Sheehan rolled a 198, P. Manzella 174/174, M. Apelskog 170.

L.I. Industrial Tournament

High games have been bowled by K. Asselta 228, D. Adams 208, R. Larsen 203, B. Jones 202, K. Riker 200.

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.

LABORATORY RECRUITMENT: Opportunities for Laboratory employees only.

2032. MATERIAL HANDLER (2 positions) - Supply and Material Division.

Autos & Auto Supplies

GERMAN AUTO PARTS - wholesale prices on new parts for VW, Porsche, Audi, BMW, and MB. Augie, 289-4211.

82 CAMARO - Z28, black w/gray int., 17,000 mi., all power, am/fm stereo cassette, cross fire injection, 305 V8, fully tinted glass, loaded, must see. Joe, 758-7365.

67 VOLVO - runs, many new parts, needs little work, \$250 Rose, 744-5069.

62 OLDS - F-85, good for restoration or parts, needs tranny, body in good shape, \$250. 928-5684 eves.

76 PACER - auto., p/b, p/s, a/c, 6 cyl., clean, 72,000 mi., new tires, \$1,395. Bob, Ext. 4547 or 473-3987.

62 JEEP - pick-up, 4 wheel drive, w/plow and extras, good cond., \$1,200. 475-1469 eves.

81 TRUCK - mini pick-up, drive train in excel. cond., asking \$2,700. 288-1294.

CAR CARRIER - for 1970 Ford Ramp bed, F-350, winch, tire rack, Eddie, Ext. 2021 or 727-4022.

79 DODGE STATION WAGON - 65K, am/fm cassette, p/s, p/b, roof rack, clean body. Ext. 4452 or 543-0079.

74 TOYOTA - longbed pick-up, 89,000 mi., runs well, rusted, minor collision damage, \$500. Ext. 3458 or 369-2504.

FIRESTONE STEEL BELTED RADIALS - (4), 721-P225-75R15, new, \$140. 325-0193 after 5 p.m.

74 PINTO - auto., runs, needs work, \$250. 758-9430 after 5 p.m.

77 DODGE RAM CHARGER - 4x4, many extras; dirt bike, RM 400. 698-5701.

70 FORD TORINO - auto., p/s, p/b, new battery, starter and regulator, excel. running cond., \$390 or best offer. Divadeenam, Ext. 5076.

72 HONDA - 450cc, custom paint, new clutch, \$600 or best offer. Bob, 924-8689.

80 TOYOTA CELICA - 5 spd., a/c, am/fm cassette, crank sun roof, radials, excel., \$6,000. Tony, Ext. 3194.

75 HONDA - 500cc, twin, good cond., low mi., asking \$650. Irene, 589-5126.

80 DODGE RAM - pick-up, slant 6, low mi., cap like new, must see. 234-9630.

73 HONDA XL250 - 6,000 mi., good cond., 4 cycle, for street or trail use, \$450. Ext. 3458 or 369-2504.

72 DODGE DART - 318 V8, p/s, auto., body and interior very good shape, needs engine, \$325. 924-8224.

DATSUN - 200SX, auto., a/c, p/s, am/fm, 30K mi., \$5,750. 924-4857.

79 HONDA PRELUDE - good cond. Ext. 3173 or 473-7460.

GOODYEAR RADIALS - (2), P-205/75R15, \$20/pair. Tom, Ext. 4084 or 878-1060.

80 SUZUKI - 1000cc, touring cycle, full fairing, lowers, side bags, extras, \$3,000. 277-1284.

77 CAMARO - a/t, a/c, 350 V8, 53K mi., new radials, new exhaust, \$4,000. 584-7290.

72 VW SQUAREBACK - good transportation, runs well, \$750. 286-1183 or 924-7238.

76 BUICK REGAL - full power, a/c, c/c, am/fm stereo, excel. cond., \$2,800. Ext. 3843.

74 AMC AMBASSADOR - good transportation, 4 dr. Roger, Ext. 2384.

TRUCK CAP CAMPER - 6'x6', homemade, must see, \$400. 265-3861 weekdays between 4 p.m.-5 p.m.

75 DATSUN - new motor, exhaust, good transportation, good cond., asking \$1,400. Ext. 2021 or 878-8901.

69 CADDY - dependable and safe transportation, asking \$500. 744-7734.

74 MUSTANG - 4 spd., 6 cyl., am/fm, fair cond., \$900. Dick, Ext. 7772.

78 TOYOTA - Corolla, liftback, a/t, am/fm cassette, high mi. but good cond. Pat, Ext. 4628.

78 FORD RACK TRUCK - 350 V8, 72K, orig. owner. 472-1473.

74 CHEVELLE - blue, 6 cyl., fair cond., \$600. Ext. 2964.

74 GREMLIN - auto., a/c, basic transportation, am/fm cassette, asking \$600. John, Ext. 5155 or 689-8510.

80 KAWASAKI - 650 LTD, red, crash bars, excel. cond., must sell, \$1,500. Bob Johnson, 475-2305 or 283-4741 after 6 p.m.

MAG WHEELS - (4), silver, 13"x5-1/2", 4-lug, with (4) Goodyear Eagle NCT P185R70 mounted tires, \$300. Eric, 289-2352 days.

78 BUICK REGAL - V6, a/c, a/t, new w/w tires, wire wheels, stereo, \$3,650. 588-7989.

80 CELICA TOYOTA - am/fm cassette, roll back sun roof, a/c, good cond., 62,000 mi., beige, \$4,300 firm. 732-3037.

80 SUBARU - wagon, 4 wheel drive, 4 spd., am/fm cassette, new oversized radials, mint cond., \$4,100. 286-2093.

76 CHEVY MALIBU CLASSIC - small V8, new tune-up and tires, 89,000 orig. mi., runs well. 751-6418.

77 MG - Midget, \$1,500. Bill, 924-0121 after 6 p.m.

MOTORCYCLE PARTS - and accessories, discounted. 325-9580 after 6 p.m.

68 PONTIAC - Tempest, auto., 6 cyl., 4 dr., new tires, good cond., \$650. 399-2084.

78 OLDS - Omega, 4 spd., V8, 2 dr., bucket seats, \$2,500. Jim, Ext. 5025 or 821-1704 eves.

72 FORD - Maverick, 6 cyl., new clutch, runs well, \$175 or best offer. Wally, Ext. 2468.

72 MERCURY - Marquis, dependable, \$500. 698-5497 after 6 p.m.

70 & 72 PLYMOUTH - Fury's, for parts, tires/engine okay, \$60 ea. Ext. 3030.

81 BUICK - Skylark, a/c, p/s, p/b, am/fm stereo, \$4,750. 473-3777.

67 FORD - pickup cab and nose. 727-0082.

SNOW TIRES - 79 Olds Cutlass, (2) avail. late March. 475-6717 eves.

65 BUICK - Skylark, good for parts, \$100. 369-2838 after 6 p.m.

76 PONTIAC - Grand Prix, white w/red, new trans. and brakes, 67,000 mi., good cond. Peter, Ext. 3379.

83 HONDA - Accord LX, 5 spd., hatchback, a/c, p/s, p/b, am/fm stereo, 16,000 mi., \$8,900. Yannis, Ext. 2435 or 732-6546 eves. and weekends.

79 HONDA - Civic, needs work, blown head gasket, best offer. P. Cameron, Ext. 7190 or 2193.

83 MAICO DIRT BIKE - 250cc, many spares, new. Oscar, 325-9580 after 6 p.m.

71 TORINO - 302, V8, low mi., \$800. Ext. 4008.

78 DATSUN - 200SX, 5 spd., recent tires, brakes, shocks, alt. & water pump, sun roof, am/fm cass., a/c, asking \$2,650. Ext. 7148 at Noon.

68-72 NOVA PARTS - hit in rear, front end and other parts avail. Glenn, Ext. 5385 or 281-7873.

73 VW - Squareback, runs well, low mi., \$650. 286-9256.

82 KAWASKI - KDX 175, dirt bike, excel. cond., \$1,000. 821-1042.

77 PONTIAC - Grand Prix, auto., p/s, p/b, runs well, \$800. 698-6723.

77 MERCURY - Cougar XR7, V8, new parts, good cond., masking \$2,200. Mark, 286-4150.

71 VW CUSTOM CAMPER - stove, sink, elec. refrig., furnace, closet, am/fm/tape single bed, \$1,950. Marty, Ext. 3563.

Boats & Marine Supplies

74 CATALINA - 27', diesel, whl. dodger, many extras, excel. cond., \$19,000. 785-7195 eves & weekends.

17' WELL CRAFT - 60 HP Evinrude, full canvas, CB, extras, excel. cond., \$2,000. 765-3963.

18' MFG - cuddly cabin, 120 HP, I/O, full canvas, \$1,800. 929-8876 after 6 p.m.

15' FIBERGLASS COBIA - 40 HP Evinrude, 1982 trailer, cover, all access., asking \$1,500. Rick, Ext. 2907 or 929-6199.

BOAT TRAILER - Lil Dude, 20', tilt bed, good tires, needs work, \$250. 783-1886.

EVINRUDE - 35 HP, approx. 1958, needs water pump. Bob, Ext. 5286.

EVINRUDE - 1-1/2 HP, outboard motor, excel. cond., ideal for small dink \$100. Walt M., Ext. 3256.

Miscellaneous

EASTER BUNNIES - choice of colors, \$10. 363-6292 eves & weekends.

WICKER KENNEDY ROCKER - seat needs recaning, asking \$30; wicker rocker, good, asking \$40. 929-4701 or 929-8105.

BEDROOM DRESSERS - (2), good cond., \$75 for both. 924-8224 eves.

OIL DRUMS - \$15; Toro rototiller, 5 HP; recessed lights, \$25/pair. 365-1961.

HANIMEX SUPER 8 MOVIE CAMERA - auto., exposure F1.1, 9-28 mm, power zoom lens, \$100. Mark, Ext. 3371 or 3372.

SHEETS - for children, never used, 3 piece set, \$15, 2 piece set, \$10. S. Spark, Ext. 4111.

THOMAS ORGAN - 2 keyboards, Color-Glo rhythm box, 25 stops, walnut, mod. #1320, 4 yrs. old, perfect, \$1,500. Bob, Ext. 4547 or 473-3987.

UPRIGHT PIANO - Weber, standard size, \$250 or best offer. Ext. 4604.

LAWN MOWERS - Simplicity 30", ride on, reel type, gas, \$100; Sears 21" reel type, gas, \$85. 286-9256.

BEDROOM SET - dark pine, Colonial, queen size Cannonball bed, triple dresser, mirrored deck armoire, 2 night stands, \$800. 283-0475 after 5 p.m.

UTILITY CABINETS - (4) metal, \$10/ea.; old hand breadmixer pail, \$20; 3-drawer dresser, \$20; sled, \$8. 878-6637.

ATARI CARTRIDGES - Hockey, Baseball, Football, Pitfall, Pac Man, Indy-500, \$15/ea. 878-0897.

POOL TABLE - 1 piece slate, 3'x6', good felt, balls, bridge, rack, 2 sticks, asking \$175. Don, 924-7696.

LINED DRAPES - gold, 2 pair, extra wide, never used, cost \$100, selling for \$40. Ext. 4602 or 722-4489.

BMX MONGOOSE - racing parts, zap pads, excel. cond. Neal, 286-2435.

CASSETTE RECORDER - model RQ-409S, built-in mike and handle, excel. cond., \$30. Oster, Ext. 3876 or 4822.

OAK LUMBER - mostly 2x4, some 2x6, varying lengths from 10' to 14', mill cut (unplaned), both sizes \$1.50 running ft. or best offer takes all. Adam, Ext. 5213.

SUNBEAM ELECTRIC LAWNMOWER - \$50; lawn sweeper, \$25; BMX dirt bike, \$50. Lydia, Ext. 2380.

SITAR - Indian, professional, cost \$1,500, asking \$500; Hindu records, 78 rpm, old, one or all asking \$2/ea. 929-4701 or 929-8105.

WINDOWS - (5) six/six, wooden, 32"x47" with storms and screens, \$20/ea. 286-2501 eves.

CATCHER'S MASK - Spalding, new, \$6. 727-3608 after 5 p.m.

STEREO CONSOLE - Magnavox, am/fm, record player, \$50; round table, 24" diam., w/drawer, \$15. Nancy, Ext. 5274 or 281-2767.

DARK PINE HUTCH - Early American, 2 piece, \$425. Neil, Ext. 2023 or 422-1038.

CANDELABRA - antique, brass ornate, bird design, marble base, crystal teardrops hang from leaves. Irene, 589-5126.

SOFTBALL GLOVE - Regent, hardly used, too large for hand, best offer. Ext. 7112 or 472-1922.

OVEN HOOD - coppertone, with fan, filter, lights, \$10. Victor, Ext. 2395.

DRESSER - men's large, dark pine, armoire, very good cond. Ext. 5371 or 472-4067 after 6 p.m.

BEDROOM SET - full size bed, hdbd., ftbd., 2 nightstands, trpl. dresser w/mirror, dresser, \$400. 929-4886.

DRILL PRESS - 5/16 capacity, variable speed, table model, all cast iron. 475-0831.

RACING HANDLEBAR - chrome, ram style, for 10 spd., new cond., \$1; shoe rack stand, chrome, holds 9 prs. of shoes, new cond., \$3. 727-3608 after 5 p.m.

HI-RISER BED - \$25; chest of drawers, \$25; metal desk, \$15. 286-0795.

CANOPY BED - mint cond., \$50; old dresser, large draws, very deep, \$10. Ext. 2969.

VERTICAL BLINDS - miniblinds, wovenwood shades, custom colors and sizes. Jim Griffin, 281-2849.

STAINLESS STEEL SINK TOP - 5 ft., one large basin, back splash and faucets, new, \$90. 475-0831.

CAMERA - Canon F-1, body overhauled, cleaned and oiled by Canon, excel. cond., \$300. 727-6516 eves.

KITCHEN SET - table, 4 chairs, wood w/vinyl, \$25.; 3/4 bed, metal frame, \$25. Chris. 821-1704.

SOFA BED - queen, tan/blue print, excel. cond. Nick, Ext. 2490 or 286-1816.

FOOD PROCESSOR - Farberware, 4 blades, excel. cond., \$25. Ext. 3305 after 4 p.m.

DOUBLE BED - four poster, \$60, 36" x 55" mirror, \$20; fish tank and pumps, \$40. Ext. 4337 or 286-2860.

FORSYTHIA BUSHES - 30" avg., excel. qual., dug to order, \$ ea. Tom, Ext. 4084 or 878-1060.

STAMPS - breaking up collection, worldwide, great variety, about half catalogue. 821-0766.

PLAYPEN - new cond. Ext. 4475 or 929-3251.

MEDITERRANEAN BEDROOM SET - dbl. dresser, 2 tables, 1 sngl. dresser, 1 bed, excel. cond., \$400. Doris J., 732-8056.

REFRIGERATOR - Frigidaire, 12 cu. ft., white, runs well, \$100. Roy, Ext. 4664 or 331-2401.

REFRIGERATOR - Hoover, 10 cu. ft., \$25. Bob, 360-3808.

MET TICKETS - opera, 84-85 balcony seats, Friday 4, \$20. Dave Christman, Ext. 2694 or 941-9022.

CALCULATOR - Sharp, EL5813, wallet size, LCD display, programmable, 30 steps, 7 memories, \$15. Ext. 3242 or 7192.

FREEZER CHEST - Kenmore, 15.1 cu. ft., 43-1/8" wd., 27-5/8" deep, 36-1/2" high, \$150. Ext. 3579 or 654-1081.

MATTRESS - full size; women's roller skates, size 9; men's, size 10. Peter Cameron, Ext. 3246, 7190 or 2193.

BASS AMP - AMPEG V6/B, 240 watts, RMS, Peavy-215 bottom, ported, w/cover, excel. cond. Cris, 475-8456 after 6 p.m.

TROMBONE - Bundy, beginner model, 8 yrs. old, good cond., \$125 or best offer. Bob, 475-4382.

HOT TUB SPA - self contained, water jets, bubbling ports, 115V heater, 175 gal., new. Rob, Ext. 7199.

SWINGOMATIC - baby swing, wind up, like new, \$10. Morris, Ext. 4986.

HIKING BOOTS - Wolverine, 7-1/2 med., new, sacrifice, \$35. Gene, Ext. 3354.

COUCH - chair, w/ht/brwn plaid, fair, \$60; twin size box spring w/backboard built in, \$35. Judy, 698-4882 after 5 p.m.

CAR TOP CARRIER - Sears, x-cargo, fits any car, never used, \$80. Al, Ext. 2075 or 281-6617 eves.

COLOR COMPUTER - Radio Shack, model MC-10, like new, best offer. 288-3104 eves.

KIRBY HERITAGE VACUUM CLEANER - new, all access., \$400 firm. Ext. 3354 or 475-7250.

POPCORN MAKER - \$15; juicer, \$15; both almost new; Sony tape recorder, \$15. Ext. 3701.

PIANO - upright, woodgrain, refelted strikers, asking \$300. Ext. 7148 at noon.

ALPINE DAIRY GOATS - (2) registered, mild mannered, excel. milkers. 363-2736.

BABY CLOTHING - boys, accessories, many items, never used. 467-1090.

BLENDER - Waring, 7 spd., w/out container, \$7; wok, gas/elec. burner type, w/utensils, \$10; rice cooker, Sanyo, keep warm feature, \$20. 929-3566.

BERMUDA MOPED - like new, \$250; GE dryer, good cond., \$100; upright freezer, \$100. 325-1570.

BICYCLES - 3 spd., woman's; canning jars, \$2/doz. 475-9083.

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

LEISURE VILLAGE - Greenbriar, 2 bdrms., good location, \$51,000. Ext. 4643.

SHOREHAM NORTH - 4 bdrms., 2-1/2 baths, full brick wall f/p, 2 car, 3/4 acre, low taxes, 8-1/2 assum. mtge. 821-0080 after 5 p.m.

MEDFORD - 2-3 bdrm., 1-1/2 baths, 2 car garage, 3/4 acre, 15 min to BNL, Ext. 2486 or 325-0681 eves.

For Rent

EASTHAM, CAPE COD - Sept.-Oct., 4 bdrm. house, sleeps 8, 2 baths, washer/dryer, dishwasher, deck, near beaches. 722-3865 eves & weekends.

SMITHTOWN PINES - near highways, beautiful 4 rm. apt., yard, private, avail. April 15 to May 1, carpool to BNL also avail., \$650 incl. all. Ext. 2676 or 543-0487.

MILLER PLACE - 1 bdrm. apt., kitchen/living room, private entrance, util. incl. Ext. 2537 or 473-1658 after 6 p.m.

PORT JEFFERSON - sublet apt., furnished, overlooking harbor, 1 yr., woman preferred, \$600. 928-4232 eves.

CORAM - La Bonne Vie, 2 bdrm. apt., new lease, or sublet up to 9/30/84, cent. a/c, \$605/mo. incl. heat, avail. April 1, Yannis, Ext. 2435 or 732-6546 eves. and weekends.

MEDFORD - 1 bdrm. apt., full kit., w/w-carp., pvt. entrance, \$400/mo. incl. util., 1 mo. sec., avail. April 1, no child/pets. Ext. 3336 or 475-8456 eves/wknds.

PORT JEFFERSON VILLAGE - 1 bdrm. apt., pvt. entrance, walk to shopping and harbor, avail. June 1,