

## N.Y.C. Road Patched

A badly deteriorated section of a well-traveled highway bridge in New York City was repaired this week with polymer concrete, a material developed by scientists and engineers in the Department of Applied Science.

The repairs were made under the supervision of Larry Kukacka, Jack Fontana, George Arnold and Jack Amaro, all members of the Nuclear Division of DAS. On Tuesday and Thursday, three holes were filled with polymer concrete leaving a fourth hole to be filled at a later date. The holes ranged in size up to six ft. by ten ft.

Polymer concrete is produced from a mixture of sand, stone and a chemical known as a monomer. When activated, the monomer is polymerized, binding the stone and sand aggregate into a concrete-like substance. The unique feature of this material is that it dries stronger than conventional concrete within two hours of application.

Only one lane out of the three on the bridge deck was closed to traffic. The repair job, done during non-rush hours, took approximately five hours from start to finish each day. The same job done with conventional concrete would have required at least five days in order to give the concrete time to dry. Also, traffic would have had to be detoured onto another roadway because vibrations from passing traffic would have prevented the regular concrete from setting properly.

Concrete polymer was used successfully to repair a hole in the deck of the Major Deegan once before. Last November, it was used to patch a three foot by ten foot hole which extended 14 inches deep through the deck. Within one hour, a structural patch formed which was stronger than the original concrete in the deck. Since then, the

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## Postdoctoral Fellowships Offered In Israel

The Weizmann Institute of Science, Rehovot, Israel, offers a limited number of postdoctoral fellowships in all the areas of research in which it is engaged.

The research is conducted within the framework of the faculties of mathematics, physics, chemistry, biophysics-biochemistry, and biology, and of the Department of Science Teaching. There are two categories of fellowships: Junior Fellowships: requiring a Ph.D. degree or equivalent research experience; Senior Fellowships: requiring at least three years of postdoctoral or equivalent research experience.

The fellow may take up his appointment at any date between April 1 and December 31, 1975, as mutually agreed with his host.

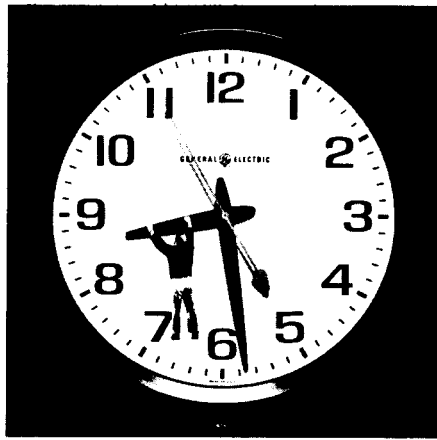
The fellowships provide a 12-month stipend, ranging from IL.14,400 to IL.19,200 for a Junior Fellow, and IL.18,000 to IL.24,000 for a Senior Fellow, depending upon family status. When not covered by another source, a limited travel allowance may be paid. Rent-free housing is provided.

The stipend, free of Israeli income tax for foreign nationals, is paid in monthly installments. The terms for Israeli citizens, immigrants, or permanent residents, whose earnings are subject to Israeli income tax, will be fixed according to circumstances.

Application forms and additional information about conditions and areas of research at the Weizmann Institute of Science can be obtained from the Academic Secretary's Office, Weizmann Institute of Science, Rehovot, Israel.

Completed applications should be received not later than November 15, 1974. Announcement of awards will be made in February, 1975.

## A Step Back In Time



Stan Cherouski, Photo. & Graphic Arts, pulls back the hand of time. Don't forget to set your hands of time back an hour at 2 a.m. on Sunday, October 27, when we will be going back to Standard Time from Daylight Savings Time. Not only will you be going to work in the dark but you will be losing an hour of sleep.

## Election Day Working Hours

The normal working hours for the Laboratory on Election Day, Tuesday, November 5, will be from 0830 to 1500. However, all employees working this schedule will be paid an additional two hours straight time so no loss of pay will result. Non-exempt employees in positions that require a full eight hours of service will be paid for ten hours of work at straight time.

Time records for weekly employees working the normal Election Day schedule should show 1500 as the time out. Time records of monthly nonexempt employees should show total hours worked.

"E" should be entered in the "exception" column. Approval by the supervisors of all weekly and non-exempt monthly time records is required if the additional two hours are worked.

## White House Fact Sheet On ERDA Legislation

On October 11, the President signed H.R. 11510, which establishes the Energy Research and Development Administration (ERDA). This new executive agency will consolidate the research and development efforts of four existing agencies, the Atomic Energy Commission, Interior Department, National Science Foundation, and the Environmental Protection Agency. ERDA will be the central energy research and development agency with broad charter to develop new and improved energy source and utilization technologies consistent with sound environmental and safety practices.

Such technologies will cover a broad range of energy sources including fossil, nuclear, solar, geothermal and advanced as well as conservation research and development. ERDA will provide a sound organizational framework and management and technical expertise to achieve the nation's research and development goals in the energy area.

ERDA will have a central role in the planning and management of the Administration's accelerated five-year, \$10 billion plus energy research and development program. Major responsibilities will include:

- Exercising central responsibility for policy planning, coordination, support and management of research and development respecting all energy sources and utilization technologies.
- Encouraging and conducting research, development and demonstration for extraction, conversion, storage, transmission and utilization energy phases.
- Engaging in and supporting environmental, biomedical, physical and safety research.
- Participating in and supporting cooperative research and development projects.
- Developing, collecting, distributing scientific information.

The bill provides for the transfer of the following agency functions to ERDA:

- All of the functions, authorities and resources of the Atomic Energy Commission, except the AEC's licensing, regulatory and related environment and safety functions. Functions transferred to ERDA from AEC will include nuclear materials, production, reactor development, military applications, physical research, biomedical and environmental research, controlled thermonuclear research, nonnuclear energy R&D and other nonregulatory functions.
- From Interior, the functions of the Office of Coal Research, six energy research centers of the Bureau of Mines, the Synthene Pilot Plant for high BTU coal conversion at Bruceton, Pa., and underground power transmission research and development.
- From the National Science Foundation, programs for solar heating and cooling development and geothermal power development.
- From the Environmental Protection Agency, research, development and demonstration of alternative automotive power systems except those programs relating to assessment or monitoring for regulatory purposes.

The ERDA Administrator will be supported by a strong and independent staff at the headquarters level. A great deal of flexibility will be available to the Administrator to carry out needed R&D programs.

There will be six Assistant Administrators each responsible for a major program area as follows:

- Assistant Administrator for Fossil Energy - Responsible for developing new and improved technology for the production and utilization of fossil fuels including coal, oil, oil shale, gas, etc. Significant programs include liquefaction, coal gasification, oil shale transformation, control technology.
- Assistant Administrator for Nuclear Energy - Responsible for developing nuclear technologies including fission and fusion. Major programs include reactor research and development, naval reactors, reactor safety research, thermonuclear fusion research.
- Assistant Administrator for Environment and Safety - Responsible for environ-

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## Trustees Dinner



Dr. La Roy Thompson, Chairman of the AUI Board of Trustees, presents Dr. Gart Westenhout, University of Maryland, with a certificate of appreciation for serving on the AUI Board.



Dr. Franklin Long, Cornell University, says a few words at the dinner for the AUI Board of Trustees after receiving his certificate of appreciation. He retired from the Board this year after serving as a Trustee for 25 years. During his long service to AUI he has been Acting President of AUI and Chairman of the Board of Trustees.



Dr. Louis Hempelmann, University of Rochester, who is leaving the AUI Board of Trustees, is presented with a certificate of appreciation by Board Chairman La Roy Thompson.



Following the presentations to departing Board members, Laboratory Director George Vineyard shows slides taken during his tour of the People's Republic of China.



AUI President Gerald Tape (right) introduces Laboratory Director George Vineyard at the October 16 dinner for the AUI Trustees. Dr. Vineyard gave a slide presentation and talk on his recent visit to the People's Republic of China. Photos by Rosen

**A Collector's Item**



Bob Chrien (right), Physics, donates ten years worth of Science Magazine to Longwood High School. Accepting the gift are Richard Viera (left), Acting Principal of Longwood and Stephen Jamieson (center), Science Chairman of the high school. Photo by Humphrey

**Another Balloon Found**

Brookhaven National Laboratory seems to be on a direct line from New Jersey as far as balloon flights are concerned. This spring a toy balloon was picked up on site from a sunrise Easter service at a New Jersey church. Last week, another small balloon from New Jersey was found by Laboratory police.

Attached to the balloon was a note: "This balloon was let up on October 17. The name is my sister's favorite cartoon character. Would be grateful to know the distance travelled from Little Falls. Will the finder please write to:

Curious  
17 Jean Drive  
Little Falls, N. J. 07424  
Thank you"

Well, Curious, Little Falls, a suburb of Passaic, is about 80 air miles from Brookhaven Lab. The balloon was found on the East fire break at about 10 p.m. on the same day you released it by Capt. Hettrick of Security. The face of Tarus Bulba on the balloon was an impressive sight in the night stillness at the East fire break. We'll send Tarus back to you so that perhaps he might visit again!

**Holiday Closes Center**

The Tap Room in the Brookhaven Center will be closed on Sunday, Oct. 27 because of the Veteran's Day holiday on Oct. 28. Normal business will resume at 5 p.m. on Oct. 28.

**Winter is Coming**

All the Laboratory vehicles have been prepared for the season; snow tires, heaters, and antifreeze included.

The automotive maintenance shop requests that no water be added to cooling systems except in emergencies, and, if such an emergency occurs, that they be notified so that antifreeze protection can be assured. Your cooperation will be appreciated.

**Selected Reading**

- New Sci. 63, August 29, 1974  
Science for men only? A. Kelly. 538-40
- New Sci. 63, September 12, 1974  
The unpredictable environment. E. Kraus. 649-52
- Science 186, October 11, 1974  
Impermanent balance between man and computer. R. Davis. 99
- Science advice in the White House. D.W. Bronk. 116-21

**Official & Special Events**

- Thursday, November 7**  
Hofstra University chemistry student tour  
Suffolk County Press Club,  
Brookhaven Center
- Friday, November 8**  
Jersey City State College radiation  
biology student tour

**Off-Broadway Theatre**



The cast of *The Real Inspector Hound* (minus three) is onstage in the second act. The seats visible are part of the props for the play. Visible from left to right are: Virginia Sayre, Julie Peierls, Graham Campbell, Janice Olsen and John Binnington. Offstage are Robert Marr, Geoffrey Hind and Michael Losquardo. Last performances are this Saturday evening. Photo by Kurt Fuchel

**Hospitality News**

The next morning coffee will be held in Apartment 6A on Tuesday, November 5, from 10 a.m. to noon. Mrs. Mary Ann Winsche will discuss the goals of the Planned Parenthood organization.

**Inspector Hound  
—A Review**

Usually "Off-Broadway" refers to either downtown Manhattan or the area outside the high-rent theatre district in New York. Brookhaven Avenue in Upton is far from "Off-Broadway" in miles, but the current production of the BERA Theatre Group is right up there in staging and talent.

No old fashioned theatre is this production. The only unprofessional touch is the folding chairs for seating. The story, *The Real Inspector Hound*, is a play within a play where you wonder if the Fireman on duty will speak a few lines.

Even though the plot is complicated, not to worry . . . one of the characters, played by Ginnie Sayre, will bring you up to date at regular intervals. You must be careful though, to keep yourself from leaving your seat and joining in with the actors on stage.

But, whatever you do, pay attention. At one point a sort of "Alice In Wonderland" situation exists where reality starts to evaporate for both the cast and the audience.

This is a thoroughly delightful evening of not-too-serious entertainment. There are some beautiful one-liners, and a lot of good situations that never get down to slapstick, but are constantly tickling the funnybone.

The Exhibit Hall, BNL's Off-Broadway theatre, makes an ideal spot for such presentations. The 200-seat capacity makes for intimacy between the actors and audience, and the stage is seemingly larger than in the old theatre. Sets and lighting were as good as the acoustics, which were perfect. It is always a pleasure to be able to watch a play from seats that provide a good view from any part of the house.

The cast was small and efficient. At the well-deserved curtain call, it was a shock to see that there were only eight characters. Director Ron Peierls did a superb job.

By all means catch either of the Saturday shows at 7:30 p.m. or 10 p.m., or the single performance tonight at 8:30 p.m. You won't forget it!  
—Carl R. Thien

"From ghoulies and ghosties and long legetty beasties and things that go bump in the night, good Lord deliver us!" Perhaps this Scottish prayer was meant to be recited on All Hallows Eve, more commonly known as Halloween. Since Halloween will be here next Thursday maybe you should keep it in mind. The "ghoul" in the picture is really Terry Smith of DAS.

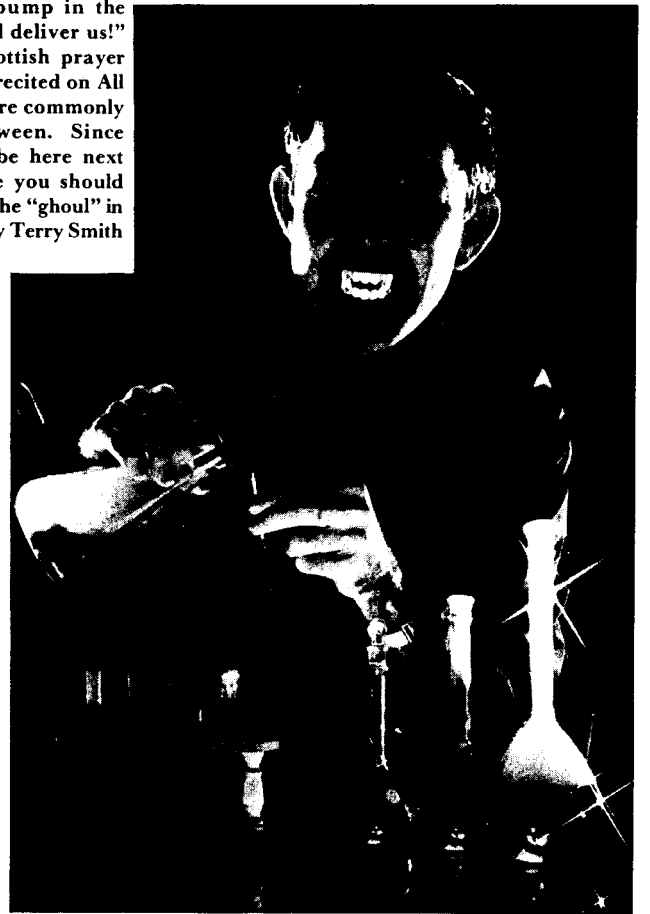


Photo by Rosen

Trick Or  
Treat

**BROOKHAVEN BULLETIN**

Published Weekly for the Employees of  
Brookhaven National Laboratory

CARL R. THIEN, Editor  
JEAN BURKE, Assistant Editor  
CLAIRE LAMBERTI, Editorial Assistant

40 Brookhaven Ave., Upton, N.Y. 11973  
Telephone (516) 345-2345

**Road Patched**

(Continued)

material has shown no signs of deterioration or wear despite the 85,000 cars which pass over the area each day.

Over the past few years, members of the Nuclear Division of DAS have been patching roadways in several areas of Suffolk County as well as in California, Texas and Kansas. Two years ago they experimented with polymer concrete on a bridge deck in Sag Harbor. Over the last two years they have been supervising several repair jobs in Greenport.

**ERDA Fact Sheet** (Continued)

mental and safety oversight for all technology developed by ERDA. Major programs include biomedical and environmental research, waste management, transportation, operational safety programs.

- Assistant Administrator for Conservation - Responsible for conservation R&D programs including automotive power systems, end-use consumption technologies, and improving energy efficiency.
- Assistant Administrator for Solar, Geothermal and Advanced Energy Systems - Responsible for developing energy source and utilization technologies including solar, geothermal, conducting physical research, and advanced energy conversion concepts.
- Assistant Administrator for National Security - Responsible for nuclear weapons research, development and production including the production of weapons materials and the testing, manufacture, and reliability assessment of weapon components and systems.

**Cafeteria Menu**

**Week Ending November 1, 1974**

<b>Monday, October 28</b>	
<b>Holiday Schedule</b>	
9:00 a.m. - 2:00 p.m. Snack Bar Service	
<b>Tuesday, October 29</b>	
French Onion Soup	
Sweet & Sour Pork on Rice	1.10
Cheese Omelet & 1 Veg.	.95
<b>Wednesday, October 30</b>	
Split Pea Soup	
Veal Pattie Parmigina & 1 Veg.	1.05
Davy Jones Fish Fry (tax incl.)	1.25
<b>Thursday, October 31</b>	
Cream of Chicken Soup	
Macaroni & Chopped Beef	1.00
Barbequed Spare Ribs & 1 Veg.	1.20
<b>Friday, November 1</b>	
Fish Chowder	
Broiled Filet of Pollock	1.10
Braised Beef & 1 Veg.	1.20

**Arrivals & Departures**

**Arrivals**

Dennis C. Albright	Applied Science
Juergen Eckert	Physics
Richard W. Kalinowski	Physics
Wayne R. McKinney	Biology

**Departures**

None

**In Memoriam**

Armstead W. Woodson of the Plant Engineering Division who had been employed at the Laboratory since June 14, 1948 died on October 20, 1974.

## Bowling News

Grace Fales

### Green League

200's for the night were rolled by B. Beligan 210, C. Zavesky 228, E. Sperry 200, J. Cain 213 and D. Jones 203. While the Designers were having a knock-down drag-out battle with the Old Timers (Final Designers 3002, Old Timers 3126), the Sandbaggers went into first place by defeating the Bubble Boys 8-3.

### Black and Blue League

With four weeks left in the first third there are only nine points separating the first and eighth place teams. Joe and Nancy Mayeski believe in togetherness: he took the Men's Pot (241) and she won the Ladies Pot (235). High games for 10-16: Dick Murgatroyd 215, Joe Mayeski 209, Frank Bugala 203, Nancy Mayeski 187, Terry Bugala 165, and Mary Austin 163.

### Red League

10/15 - The Lucky Strikes continue to lead the league with a record of 56-10 followed by the Charlies Browns 49½ - 16½. J. Roesler wins a club award with his 679 gross, which included games of 226 and 200. Other high scores were L. Newman 245, R. Nelson 226, W. Reams 220, J. Scesny 211, E. Malcolm 204, V. Bilms 221 and F. Hohmann 223.

10/8 - High scores: R. Larsen 205, J. Scesny 215.

## Rifle/Pistol Club Picks Nominating Committee

We will be selecting a nominating committee for new officers at our next meeting. All members are urged to attend this meeting at the Recreation Building at 5:15 p.m. on Wednesday, November 13th. The nominating committee recommendations will be mailed to all members and voting will take place at the regular December meeting. As always, alternate choices for officers can be nominated from the floor before the vote.

Some of our rifle team members have been negligent in attending practices. As a result we lost our first match of the season to Sperry Gyroscope by the tiny margin of 758 to 751.

Coming off an intensive summer season of intramural tournament practice, we are hoping for a better showing from our pistol team.

## Saturday Set For Races

Rain or shine the BNL Five and Ten Mile Runs and Bike-A-Thon will be held tomorrow morning starting at 11:00 a.m. The races are open to BNL employees, families, and guests. There will be a \$2 entry fee upon registration, which starts at 10:00 a.m. All finishers will receive medals.

Special first and second place medals will be awarded in each category. Besides those outlined in last week's *Bulletin* there will be an extra category in the bike race for men over forty.

Since the races finish at lunch time, several people have decided to bring lunches and have a family picnic in the area. Sounds like a great idea if the weather cooperates.

## Rock Climbing

The BNL Mountain Club is sponsoring a day of rock climbing at the "Gunks," an area of cliffs west of Poughkeepsie, on Saturday, November 2. We plan to leave Friday evening and sleep in vans at the area. The Club has the necessary equipment (rope, pitons, etc.) and a couple of experienced people to lead climbs, so novices are welcome to come along. There will be a meeting on Wednesday, October 30, at noon in Room C of Berkner Hall to discuss logistics. Call Don David, ext. 4821 or Bob Meck, ext. 3359, for further information.

## Veterans Day

In January, the official 1974 holiday schedule was distributed to all employees. Veterans Day was indicated as Monday, October 28.

Recently Governor Wilson designated November 11 as Veterans Day for New York State. This change will not affect the Laboratory holiday schedule since many employees have made plans for the weekend in October.

Consequently, Monday, October 28 will be observed as Veterans Day.

## Save Fuel The Easy Way

When leaving the Lab at the end of the day, turn your thermostat down by 5 or 6 degrees.

## CREF Unit Values

1974			
January	\$40.75	February	\$40.83
March	39.32	April	37.58
May	35.11	June	34.29
July	31.71	August	29.09
September	\$25.39		

## On Site



Photo by Humphrey

Meet Don David, another reminder that the metric system is just around the corner for the United States. When "thinking metric" Don weighs 66 kilograms and is 180 centimeters in height. When considering other male vital statistics, Don measures 91 cm. around the chest, 81 cm. at the waist, 48 cm. around the thighs and 33 cm. around his calves. His biceps are 30 cm. and his neck measures 37 cm.

How does he maintain such a trim physique? The answer lies in exercise, which he gets plenty of. He starts out each day by riding his horse and at lunchtime he jogs around site. He is an active member of the Mountain Club, plays volleyball, and has run in the 10-mile-run of the BNL Marathon.

Don, who works in the Accelerator Department, has been at the Lab for 19 years. Don and his wife Genie, who used to work in Personnel, live in Brookhaven Hamlet. They have three daughters ranging in age from eight to 13. —Burke

## Classified Advertisements

### Placement Notices

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice, or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, extension 2874 or 2882.

31. RESEARCH SERVICES ASSISTANT - Temporary position. Biology Department.
32. SCIENCE ASSOCIATE - Temporary position. Department of Applied Science.
33. TECHNICIAN - Experience in mechanical technology. Department of Applied Science.
34. ASSISTANT BUDGET OFFICER - Director's Office.
35. REGISTERED NURSE - Shift assignment. Medical Department.
36. TECHNICAL SPECIALIST - Temporary position. To work on diffusion chamber culture techniques and granulocyte kinetics. Medical Department.
37. COMPUTER SCIENCE ANALYST - Temporary, part time position. DAS.

### Autos & Auto Supplies

- 68 ENGINE - 6 cyl, 232 cu in Amer Motors, 60,000 hiway mi., runs good, \$50 firm. Joe, Ext. 4254, 281-7683.
  - 70 PONTIAC - 4 dr hdtv Executive, w/w, ps/pb. Ext. 2882 or 584-5216 after 6.
  - 65 PONTIAC TEMPEST - Conv, gas saver, excel cond. 981-5993 after 6. \$700.
  - 72 FORD GRAN TORINO - Station wagon, 6 pass, p/s, p/b, a/c, showrm cond, \$2175. 286-9260 eves.
  - 50 CC JAWA STREET/TRAIL - 200 mi, like new. \$200. John, Ext. 3354.
  - 68 ½ TON FORD PICKUP - A1 shape. 878-1915.
  - 69 DATSUN 200 ROADSTER - 2 tops, asking \$950. Ext. 3525.
  - 64 PORSCHE - Model 356c, dark green, tan leatherette, Semperit radial tires, new rugs, many access, engine rebuilt, a beauty. 929-4532.
  - 73 OLDS CUTLASS SUPREME - 20,000 mi, excel cond, ps/pb, a/c, snow tires. Ext. 3453-3514, 265-1072.
  - TIRES - Size 7.75x14 w/w, \$4 ea. Bill, Ext. 4249.
  - 73 DUSTER - Gold, auto trans, radio, heater, 4 brand new w/w tires, 6 cyl gas saver, excel cond, \$1900. 473-1175.
  - 67 T-BIRD - Vinyl top, a/c, good rubber, mint cond, 54,000 mi. JU4-6738 after 5:30.
  - 2 G78 15" SNOW TIRES - Dble stripe, white walls on rims, used only 1 winter, \$50. Joanna, 281-1983 after 5:30.
  - 74 CHEVY VEGA - GT hatchback, used very little, A1 cond, must sell. 588-4703 after 5.
  - 63 RAMBLER AMER - 62,000 orig mi, good mech cond, body rot, comes to work every day, \$75. Fred, Ext. 2434.
  - 69 FAIRLANE COBRA - 428, 4 sp, 2 new tires & carb, 4 mags, am/fm, good cond, asking \$1150. Keith, 473-9275.
  - RIMS - 2 ea 14", new, \$8/pr. Ext. 2972.
  - 71 CHEVY WINDOW VAN - V8, heavy duty throughout, 25,000 orig mi, new radial tires, extras, excel cond, must be seen, \$2650. 369-2051 after 5.
  - 70 DODGE SWINGER - 318 V8, auto, p/s, bucket seats, vinyl top, new brakes, low mileage, very good cond. Ed, 722-3905 after 5.
  - 4 SP TRANS - Ford T10, excel cond, with bell housing to fit '66-up, sm block, \$100. George, 924-3807.
  - 63 CHEVY CARRY ALL - 4 wheel drive, runs good, body poor, good off the road vehicle for beach or woods, \$400. Hamill, Ext. 4285 or 281-3293.
  - 69 CHEVY CAPRICE - A/c, ps/pb, elec rear window, V8, \$895. 727-1329.
  - 69 OLDS TORONADO - All power, a/c, alarm, new brakes, battery & 2 new tires, gray w/black vinyl roof, \$1100. 928-5094.
  - 65 AUSTIN-HEALEY MKIII-3000 - Radial tires, new top, new gen, good body, choc brn, needs some clutch work, \$1700. 363-6019 eves.
  - 64 4 CYL CHEVY VAN - Side window, real gas saver, good tires, good running cond, \$650. 475-5998, 732-2720.
- ### Boats & Marine Supplies
- KAYAK - Klepper "Aerius" 17' foldboat, full equipped for sailing, touring, whitewater, excel cond, \$450. F. Paffrath, Ext. 4407 or 864-1214.
  - LUHRS SPORT FISHERMAN - 31', 2 new engines, must sell, \$3900. 587-8759.
  - 19' GLASSPAR - W/100 hp Evinrude, power winch, power tilt, dual wheel tandem trailer, all 1968, \$1300. P. Valli, Ext. 2023.
  - 17' ELTRO - 1965 wood, new 50 hp elec st, 2 hrs on engine, heavy duty trailer, new elec winch, all canvas, gear extras, \$1800. Ed McKenna, Ext. 4597.

## Softball Awards Night



The Phoubars



The Ravens



The Oh-Kays



The Old Timers

