R()[NT]

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS

Friday, October 11, 1974

Mockup Spacelab Occupied For 7 Days

Astronaut-physician Dr. Story Musgrave and Dr. Dennis R. Morrison of the Bioscience Payloads Office at JSC entered a mockup Spacelab October 1 for a seven-day shakedown test of operational procedures and experiment demonstrations.

Vol. 13 No. 23

Spacelab is a scientific space station that will be carried into earth orbit as a Space Shuttle payload.

Located in what was once the Lunar Receiving Laboratory, the Life Sciences Payload Facility will be the scene of a series of Space Shuttle life sciences experiment development tests from now until Spacelab and Space Shuttle are ready for orbital flight. Spacelab is being developed and built by the European Space Research Organization (ESRO), a consortium of 10 European countries.

Musgrave and Morrison lived in a mobile home adjacent to the laboratory during Spacelab offduty hours. Test directors, the science manager and data managers monitored the simulation from consoles in the laboratory near the Spacelab mockup.

The first test, which ended

October 7, served as a rehearsal biomedical demonstrations that for future tests and as a means of perfecting operational procedures. In addition, it evaluated proposed Space Shuttle ground lation were 12 biomedical support and flight crew operational procedures, data handling techniques, man-machine integration concepts and a group of aboard the space station.

are possible forerunners of actual Spacelab medical experiments.

Included in the payload simudemonstrations which were representative of the experiments that likely will be flown

2-Day Conference Focuses On Technology Transfer

Approximately 135 representatives from various businesses gathered at the University of Houston School of Continuing Education recently to absorb information presented by some 40 speakers on technology transfer. The conference was sponsored by the Houston Chamber of Commerce in conjunction with

ISC Director Dr. Christopher C. Kraft, in welcoming the group remarked, "It is always difficult and sometimes impossible to trace how technology flows from its initial development to widespread application, but several

studies emphasize the importance of information exchange.

It is in discussions between knowledgeable people that the compatibility between capability and opportunity has been and will continue to be recognized."

A significant portion of the conference was devoted to existing and/or potential spinoffs derived from applying NASA technology to commercial, industrial and medical processes

NASA's involvement in the MIUS (Modular Integrated Utility System) Program was discussed by Ted Hays, Manager, Urban Systems Project office at JSC. Sponsored by the Department of Housing and Urban Development, the MIUS concept integrates utility services in order to achieve resources, energy and environmental benefits. NASA's role in the program is to conduct design studies to determine the feasibility of MIUS as a viable and acceptable alternate to existing utility service provisioning.

One such study revealed that in providing utility services to a 648 living unit garden-type apartment complex located in Houston, an energy savings of 33 percent can be achieved with the MIUS design as compared to conventional practices. Other studies show similar savings.

(Continued on Page 2)



BRIEFING-Elmer S. Groo, Associate Administrator for Center Operations, NASA Headquarters, recently toured a number of facilities at JSC. In the picture above, Astronaut Story S. Musgrave, right, briefs Groo, left, on the Spacelab shakedown test which took place recently. Looking on are JSC Director Dr. Christopher C. Kraft, center; Sigurd A. Sjoberg, top center; and John Stonesifer, far right. The men are in the viewing room of Building 37.

Crews To Produce Solar Eclipse

they alone can see will be produced by the American and Soviet crews on their joint space mission in July 1975.

They will produce the artificial eclipse in order to observe and photograph the solar corona the atmosphere of the Sun.

This atmosphere is much fainter than the surface of the Sun. To prevent light from the surface from coming through, the Apollo spacecraft will be used as an occulting device, producing the artificial eclipse.

The experiment will allow space photography to be performed of the extended solar corona as well as the spacecraftassociated environment around the Apollo vehicle which could develop from outgassing of sealed compartments, degassing and sublimation of outer structural materials of the spacecraft or firings of the attitude control

in the experiment, the Apollo laterally by the United States.

An artificial solar eclipse that will first align the Soyuz toward the Sun. Then, shortly after spacecraft sunrise, the Apollo will undock from the Soyuz and back away toward the Sun.

As the distance between the two spacecraft increases, more of the solar corona will be exposed to the field of view of the motion picture camera mounted on the Soyuz. During separation, this camera will automatically take sequences of photographs with varying exposures.

An attempt will be made to correlate the observed coronal structure with surface activity on the Sun, which is to be observed simultaneously with groundbased instruments.

Principal investigator for the experiment is Dr. G.M. Nikolsky of the U.S.S.R. American coinvestigator is Dr. R.T. Giuli of ISC. Dr. Giuli is also the program scientist for the other experiments to be performed jointly with the U.S.S.R. or uni-



Award to Vernon Gross, Safety Consultant and Vice-President of Tusting Institute of Technology in California. The award was presented in appreciation of Gross' lectures to JSC members on systems safety

Preparation For ASTP Progresses Successfully

Joint preparations for the cow meeting with U.S.S.R. flight tests will include participation Dr. Glynn S. Lunney for the U.S. for the U.S.S.R.

the Soviet and American flight Operations. crews were conducting further

lers also spent two weeks in Mosarea from May 5-13, 1975. These

Apollo Soyuz Test Project con- controllers for familiarization and tinue to progress successfully, training. Their schedule included according to technical directors briefings on U.S.S.R. Mission Control Center Operations, and Prof. Konstantin Bushuyev Soyuz spacecraft systems and review of the mission flight plan. Recently, a team of NASA The U.S.S.R. flight controllers specialists met with their will visit Houston in December U.S.S.R. Academy of Science for similar training concerned Counterparts in Moscow while with U.S. Mission Control Center

The project directors anjoint training and familiarization nounced plans to conduct joint sessions for a three-week period pre-launch tests at the U.S. launch site from February 1-8, A team of U.S. Flight control- 1975 and at the U.S.S.R. launch

by the flight crews and technical specialists from both countries.

Also, Soviet specialists said their country plans to fly a manned Soyuz mission related to ASTP before the planned joint mission, during which Soyuz systems intended for ASTP will be tested. NASA will be informed of further details prior to the flight to permit its tracking network to follow the mission.

The project directors agreed to a detailed schedule of technical meetings and flight crew and flight controller training sessions in both countries.



RECEIVING AWARD—The JSC Stamp Club Award for Achievement in Space Philately (stamp collecting) was recently given to Aleksey A. Leonov, one of the ASTP prime crewmen. Presenting the plaque is Lee Scamp, JSC Stamp Club president.

JSC Personality Profile: Ms. Ruth Cole

the army when she graduated from high school, but her parents said "nothing doing" and refused to sign papers giving their consent.

After working for the U.S. Postal Service for five years, Ruth decided the time had arrived for a change and the army was going to be it! After all, joining the army was what she had really wanted to do all along.

"I had always been curious about the army. It stirred my interest and my imagination. To me, this was something different and anything different turns me on," she commented.

Ruth says the army was more than she expected; that it helped to mold her philosophy of life.

"My outlook on life was somewhat shaky because I had always been bombarded with the 'this is what you're supposed to do' attitude. In the army, I met a cross section of people from all walks of life. In this type of environment, you soon have to make your own decisions about what take," she remarked.

It was in the army that Ruth began her training in electronics, taking electronics and math never learn too much," she says.

nology. Her father is a technician and this particular field has always fascinated Ruth.

'When I was a kid, I used to play around with anything that was electrical. I would tear things apart and attempt to put them back together again, unsuccessfully, of course." She laughingly admits, "After a while, however, I began to apply practical application to theory and the more I got into it, the more interested I became."

When she completed her tour of duty with the army, Ruth entered Houston Community College where she studied basic electronics. She also began working for the United States Public Health Service as an assistant physical therapist.

Ruth joined JSC in December of 1973. She is a trainee in Instrument Construction, Electronics Branch, Technical Services Division. Her job primarily entails photographing and developing film and preparing layouts for printed circuit boards which are direction your life is going to used in electronic devices at

Ms. Ruth Cole wanted to join specializing in computer tech-courses at the College of the Mainland. She also takes courses at the University of Houston for her "own satisfaction."

> Besides her work, Ruth enjoys popular music, bowling, tennis, badminton and similar sports. She is also a travel enthusiast, and often drives to her destination so that she can see more of the countryside.

Ruth recently joined the army reserve and her unit is scheduled to go to Alaska and to Germany. "I'm really looking forward to that," she says.

Witty, charming, ambitious, adventurous, independent —these characteristics combine to form Ruth Cole's unique personality.

As for marriage, Ruth feels "there is no greater institution -for those who want it."

"Personally, I prefer to remain single. Maybe I'm selfish, but I love my independence. For me, marriage would mean giving up too much of my freedom."

Ruth says right now she just wants to concentrate on gaining all the knowledge she can about life."The more I learn, the more As part of her training, Ruth is I feel I need to know. You can



DEVELOPING FILM-Ruth Cole is shown developing film for use on printed circuit boards. She is employed in Instrument Construction, Electronics Branch, Technical

Technology Flow (Continued From Page 1)

Another objective of the MIUS program is to test and evaluate those integrated system technical details that do not lend themselves to analysis. To achieve this goal, the Urban Systems Project Office at ISC awarded a contract to the Hamilton Standard Division of United Aircraft Corporation to design and construct a testbed integrated utility system called the MIST (MIUS Integration and Subsystems Test) Laboratory. The facility was completed early this year and is developing data for MIUS.

The MIST was described at the conference by W. S. Beckham, Jr. MIST Project Director at JSC, and F.A. Keune, MIST Program Manager at Hamilton Standard.

Also discussed at the conference was the NASA Firefighter's Breathing System (FBS) Program. Pat B. McLaughlan, Technical Monitor at JSC, says the program was initiated as a result of requirements by the Houston Fire Department for improved protective breathing apparatus.

A study by JSC resulted in the selection of a 4,500 PSI (pounds per square inch) compressed air demand type system for use by the fire department.

The FBS program consisted of the contracted design, fabrication and testing of prototype hardware, followed by manned testing and finally evaluation in firefighting conditions by municipal fire departments.

Since ultimate commercialization was a primary program objective, emphasis was placed on fire department requirements, coordination with potential manufacturers and regulatory agencies, and fieldfighting conditions, McLaughlan said.

Richard W. Bricker and Robert N. Stuckey of the Structures and Mechanics Division presented an overview of the JSC aircraft flammability program which concerns utilizing spacecraft developed fire-resistant materials to improve passenger safety and decrease losses from unattended fires in commercial aircraft.

ment Section, JSC, and Robert L. Johnston, Chief, Materials Technology Branch here, discussed a number of nonmetallic materials used in aerospace applications with respect to potential use in nonaerospace uses.

Medical benefits from the NASA Biomedical Applications Program were discussed by John L. Sigmon, Consultant for Southwest Research Institute's Biomedical Applications Team, assigned to JSC.

Some of the projects included in the Biomedical Program, Sigmon says, are a biological isolation garment being used with leukemia patients by the National Cancer Institute; a mobile automatic metabolic analyzer being evaluated in studies of energy expended by handicapped persons and an investigation into the development of an automobile driving control for quadriplegics.

Another presentation in the medical area was "Space Technology in Remote Health Care.' Discussing this topic was Norman Belasco of the JSC Bioengineering Systems Division.

His presentation focused on STARPAHC (Space Technology Applied to Rural Papago Advanced Health Care), a program which will attempt to improve the delivery of health care to remote areas on the Papago reservation in southwest Arizona through improved communication methods; mobile health clinics, advanced health care equipment; computer aids, and assistance to allied health professionals and health education programs. The program is being conducted by JSC in conjunction with the Indian Health Service of the Department of Health, Education and Welfare.

Other technology developments were discussed by NASA contractors and employees from NASA Headquarters. Non-space transfer of technology was also discussed by representatives from industry.

Dr. Frederick S. Dawn, Chief, U.S. Savings Bonds

JSC CO-OP Program Alive and Kicking

School can sometimes be a real chore. But, how about the idea of getting paid for learning? That's right! Invaluable experience and a salary-what a dream!

And so it is this term here at Johnson Space Center for 45 Cooperative Education students. They've swept in and invaded all branches of work; they've congregated here from all over the United States. University and college campuses have temporarily lost their students to Houston,

They've gathered for a common cause—to receive on-the-job training in their major fields of study. Their objectives are to establish the best practical experience in research, development, and application of theories.

The Co-op program at JSC was the student goes back to his/her started in March of 1961. Four

Director James Gorman handed over his title to Clarence Williams, who is also coordinator of the Technical Intern Program. Gorman will remain in the Employee Development Branch, working with management and supervisory development programs.

ing the required time on the job,

years ago its enrollment was less than 50; today there are 135 students enrolled, including those here and those away at Within the last month, Co-op

The nation-wide Co-op program is a break from school for either alternate semesters or 2 two-quarter terms. After spend-

Cultural Club Plans Busy Schedule The Aerospace Employees Ski Trip, January 11-14, 1975;

vel Club) has an active travel Europe, in May. schedule planned for the next few months. Planned trips include San Antonio/New Braunfels, November 1-3, 1974; Caribbean Cruise (Houston-Miami Air) to Haiti, Puerto Rico, Virgin Islands and Dominican Republic, December 7-14, 1974; Colorado

Cultural Club (formerly the Tra- Central America, February; and

In addition to these trips, the Cultural Club can save employees money on other trips to Russia, Hong Kong, London and Galveston.

For more information call Hall Parker, Ext. 6321.

The Roundup is an official publication of the National Aeronauttics and Space Administration Lyndon B. Johnson Space center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

Editor: Janet Wrather

Photographer: A. "Pat" Patnesky

school to conclude studies. Even though the time away from school delays graduation for about another year, it places the Co-op student on a higher level than the student who has no experience in his major field.

The Co-op students who are presently here representing various schools include: Sam Diaz, Gilbert Pena, Olivia Rodriguez, Robert Wilson, and David Zamora, Pan American U.; Harold Moos, Robert Neil, Edward Ripma, Dean Shutt, and Carl Soderland, Purdue U.; Michael Costigan, Dave Huntsman, Michael Urban, and Michael Woeste, U. of Cincinnati; Thomas Anderson, David Brown, Gary Holland, Joe Reyes, and Francisco Torres, Texas A & M; Wayne Anderson, Henriella Baty, Cheryl Ann Jack, and Jackson Sanders, Texas Southern U.; Richard Hermling, Bruce Moore, and Ken Nichols, U. of Houston; Jack Vincent, Isaac Webb, and Samuel Wilson, VPI; Henry Lovato, and Martha McWilliams. New Mexico Highlands; Jamie Murray and Jonathan Schultz, U. of Texas; Suzanne Beaird and Charles Holliman, U. of Oklahoma; Nancy Robertson and Jan Steinocher, Sam Houston U.; James Duval, Georgia Tech; Nick Fatica, Cleveland State; Garv George, Lamar University; Gloria Jean Meyers, Houston-Tillotson College; Patti Padgett, Texas Womens U.; Rudolph Parson, Mississippi Valley; Steve Schadelbauer, U. of Akron; and Van Stewart, Mississippi State.

Join the Payroll Savings Plan. Nonmetallic Materials Develop-



RECEIVING PLAQUE—Hat Parker, right, president of the JSC Aerospace Cultural Club, presents a plaque to Lois Miller (FD). The plaque depicts the new emblem of the Club which Lois designed.

EAA Activities

Tickets are now available for the WFL Champion Houston Aeros. The gift certificates are \$4.40—a 20% discount on \$5.50 seats. The best seats are usually the first to go, so make your own reservations soon. Better seats are available for the week-night games. Schedules are available in building 11.

PROCRASTINATORS NOTE!!

In case you've been putting off going to one of the events or amusements for which the EAA sells tickets, time is running out. Astroworld and Seven Seas, for example, close in two weeks-October 27. Six Flags over Texas is open until December 1.

The magnitude of our ticket sales may surprise many people. For example, the Astros closed their season Wednesday with EAA ticket sales over 2300that's \$2300 employees saved. Astroworld sales were even more spectacular. In addition to the 10,000 tickets sold for NASA Nite at \$3 each, 4,000 more have been sold at \$4.25 and \$3.25, giving employees a savings of \$40,000.

ISC TABLE TENNIS CLUB The JSC Table Tennis Club has completed plans for its semiannual Open Table Tennis Tournament to be held on Saturday, November 16 from 10:00am to 4:00pm at the Gilruth Recreation Center. As a special feature for newcomers and beginning table Interstate Theater. tennis players, a consolation bracket will be formed among players who lose their first two matches and a trophy will be \$15.00 coupon for 2 (\$20.00 reg.) awarded to the top finisher in this bracket. Trophies will also be awarded in the championship bracket depending on the number of entries. Only the first 32 entries will be accepted and the entry fee will be \$1.

Plan now to play in this tournament. For further information please contact Stephen Jacobs, 483-3561.

SOFTBALL NEWS

The Miller Freeman Ford Mets from JSC won this year's second Friendswood Invitational Softball Tournament with two victories

over the Gulfwestern Chips. The Mets, led by the hitting of John Peper and a 13-run inning, were able to snare a 22-17 victory in the first game. The Chips rallied in the Championship game to send it into extra innings. Jack Boykin's hit with all bases loaded provided to be the winning tally for the Mets. Final score: 15-14.

BRIDGE CLUB ACTIVITIES The ISC Bridge Club has been franchised by the American Contract Bridge League to give master rating points at each of its Thursday evening games. These points are recognized throughout

the United States as evidence of

superior bridge playing. To celebrate this milestone, the ISC Bridge Club will play a Club Championship game Thursday, October 17. There are no previous participation requirements to play in the champion-

TICKET CORNER

Astroworld, all season, adults \$4.25, children \$3.25.

Six Flags, all season, adults \$5.60, children \$4.70.

Seven Seas, all season, adults \$3.00, children \$2.20.

Lion Country Safari, yearround, free safari cards good for 10% discount.

Sea Arama, year-round, adults \$3.00, children \$2.00.

ABC Theaters—\$1.00 coupon good for admission to any ABC

Disney Magic Kingdom Club,

Dean Goss Dinner Theater, Aeros, any game, gift certificate \$4.40, (\$5.50 seat)

DEAN GOSS

Regular price for Dean Goss dinner theater tickets is now \$10 per person, with the 25% discount to JSC employees decreasing the price to \$7.50.

Also, gift certificates are only good for pairs of tickets and are priced at \$15. Employees must still make their own reservations.

The current play, "See How They Run," opened October 2 and will close Sunday, November 17. No discounts will be available during December.

Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn; Roundup) by Thursday of the week before publication.

MISCELLANEOUS

Curved, 24" decorative scalloped border blocks (red); 40 blocks, \$.60 ea, 474-3424. Nw Skyhawk II, full IFR instruction La Porte Hartsoe, 471-4410.

B-flat clarinet, Jeffrey, \$70, alto saxophone, Buescher, \$150, 944-3615, Lauritzen. Custom-made boat or utility rack for Datsun

pickup, Dur, 482-1905. Ruger Mark I, .22 target auto, 5½ in bull bbl, \$59, Colt Woodsman/Huntsman .22 auto, 6 in

bbl, xtra clip, holster, 67.50, 488-3966. Honeywell wall Thermostat for heater, \$5, Bauch, 483-5987, or 333-3382 aft 5.

Playground type jungle gym, welded galv. steel construction, \$40, 488-0157. Exercycle, triple-action, li nw. \$30, Slant-

board, \$5, must see to appreciate, 334-5170 aft 5 or Edi, 483-3431. 70 + sq yds, bg, nylon carpet, \$.50/yd, or bst

ofr, 488-2713. 2 165x13 blackwall Sears Radial tires, 8,000 mi, \$20 ea, Christensen, 488-5619 aft 5:30.

Tires, Goodyear Custom power cushion 678x 15, 4 for \$25, Massaro, x3388, or 485-5856. Two D-78-15, 2+2 tires, gd cndn, \$20, one

Sears AM car radio, \$10, 333-2359 Grand piano, 6 ft ebony Kawaii, nw cndn, \$3000, McBryer, x3286.

HOUSEHOLD ARTICLES

Early American sofa and swivel rocker chair \$40, Yeater, 946-2390, x4676.

4 Spanish chairs, blue velvet, nvr used, just brought back from Mexico, Cheaper, Norma,

Black leather Spanish couch and love seat. nw, sacrifice, 487-4228, Nickie or Johnnie. Small Upright Gulbransen piano, gd cndn \$400, 488-1456

Hammond K-112 organ, prfct cndn, solid swell pedal, \$800, 488-1456.

Magnavox 21" color t.v., table top model, 6 yrs, nd only minor tune-up, \$100, Gibson, 488-6024 aft 6.

Seasoned oak fireplace wood, \$55 cord, gas drier, gd cndn, \$75, 332-4685.

VEHICLES

67 Chev pickup, pwr brks/steering, fact air, starts, runs gd, nds tires, tie rod, \$800, Pea cock, 332-2292.

65 Dodge Dart, V-8 stick shift, 74 lic, #6 sticker, 473-1166, Rockey, 643-2555 aft 5. 72 Gremlin, nds body work, other minor

mechanical work, red, bst ofr, Norma, 483-2315, 1 owner.

Honda CT70, 4300 mi, street legal, xInt \$225, Lindsev. 488-0517 65 Corvair, gd cndn, nw tires, 22MPG,

Schmitt, 337-3259 67 Olds Cutlass Supreme 2-dr, auto, air,

cruise control, 400 cu in, green, Thomas, 488-4371 or 6101, \$650

73 Toyota Corolla, 2-dr Coupe, auto, air, blue, 27 mpg, Thomas 488-4371 or 6101, \$2200. Girls 20'' Schwinn bike, xInt cndn, \$25, 33384669

Car pool from 7000 block of Bellfort, between Mykawa and Telephone Rd, 8:30-5, bldg 1, Sherrilyn 645-9883.

72 Datsun PL510 Sedan, factory air, nw stee radials, new clutch, FM stereo casette radio custom alloy wheels, carefully maintained, ask-

ing \$2395, Satterfield, x2872, 474-3127 72 Toyota Hi-Lux Truck, 34,000 mi, 1900 cc engine, wi or wiout camper, 554-2139 aft 5:30. Trailer hitch, heavy duty (3500 lbs), 69-72 Chrysler/Plymouth, \$35, Bill 534-6133 aft 6. 73 Cougar, XR-7, yellow, vinyl top, auto, air,

gd cndn, 488-1270, x373. PROPERTY AND RENTALS

12x50 mobile home in Ft Lauderdale, ac. heat, furnished patio, on ocean access water way, 334-5052.

Townhouse, 2 bdrm, 11/2 bath, all elec wi washer/dryer, refrig, drapes incl. fireplace, \$21,000 (\$195 mo) Peggy, 534-6257.

AKC Registered Welsh Terrier puppies, Champion blood line, males, females, ready now, 472-3817.

BOATS

68 16' Lamar, 72 800 hp Mercury motor, elect start, top, and live bait well, Dilly tilt trailer, xInt cndn, \$1650, Yeater, 946-2390, x5131.

71 Evinrude 25 hp, xInt cndn, 2 propellers, canvas cover, \$425, 946-0224.

Wrought iron table and chairs, Billie, x6233. Roommate to share 2-bdrm, 2 bath Pasadena apt, only bdrm furn nded, references required, Carol, 487-3540 aft 5:30.

One or two additional members of a carpool from general area of Astrodome or elsewhere on South 610 Loop to near Bldg 12. 8-4:30, Rosencranz, 483-3217.

LOST AND FOUND

Lost, Kodak pocket Instamatic camera at JSC picnic, Sept. 14, Karla, x 5309.

Attention

The September 27 edition of the Round-Up contained a story regarding the 1974-1975 Federal Executive Development Program, a one year program for GS-15 employees sponsored by the Civil Service Commission. This article stated that GS-15 employees interested in applying for this program should send their applications to the Employee Development Branch, AH3. In order to be considered for this program, applications must be received no later than Friday, October 18, 1974. This deadline is necessary in order to meet NASA Headquarters requirements for submission of Center nominees.

Help Needed

CLEAR LAKE CRISIS HELP LINE NEEDS VOLUNTEERS

A crisis help line is now being formed in the Clear Lake area, and in order to operate the Help Line 24 hours a day, recruitment and training of 250 volunteers are needed.

The Crisis Help Line will be a service dealing with problems such as drugs, family situations, loneliness and depression, health problems, etc. Assistance will be two-fold—as intervention agent and as a referral service. Volunteer workers will not give any medical or legal advice or personal opinions to callers; rather, they will listen to the caller and use factual information to help solve problems.

Volunteers must be from the Bay Area and need no special qualifications other than being good listeners and being aware of own personal attitudes and values at all times.

Crisis Help Line should be in operation by November 1, but this depends on funding, area directory for referrals, and number of trained volunteers.

Training classes will be held as often as possible to train available volunteers. Persons interested in devoting part of their time to the Help Line should contact Crisis Help Line, P.O. Box 57545, Webster, Tx, 77598. Any questions can be answered by Alan Wylie, x3001.

Take stock in America. Buy U.S. Savings Bonds.

Dr. Carolyn Leach Gets Award

Dr. Carolyn S. Leach, of the ville, Louisiana and earned a JSC Biomedical Research Division will receive the National biology from Northwestern

Biochemistry Laboratories at JSC, Dr. Leach was cited in the award for her role as principal investigator for the Skylab life sciences biochemistry studies during the Apollo program.

Dr. Leach is a native of Lees-

bachelor of science degree in Civil Service League's 1974 State College in Natchitoches. Career Service Award for Special She completed work on her doc-Achievement in ceremonies torate in physiology and bio-October 9, in Washington, D.C. chemistry at Baylor University Head of the Endocrine and College of Medicine, Houston.





METS WIN! - Center employee Jack Boykin, left, and Chuck Miller, right, of Miller Freeman Ford display the handsome trophy won by the Mets of JSC in the 1974 Friendswood Tournament.

The JSC Picnic--What a "Country Good Time!"



















