

**MEETING IN SPACE** — This artist's concept depicts the historic moment, scheduled for July 17, when an American astronaut and cosmonaut will greet one another as their Apollo and Soyuz spacecraft are docked together while orbiting the Earth 225 kilometers (140 miles) out in space. The joint Apollo Soyuz Test Project mission will mark the first time that manned spacecraft of two nations have met in space for joint engineering and scientific investigations.

## Preparations Nearly Complete As ASTP Liftoff Approaches

With 12 days remaining until launch, preparations for the Apollo-Soyuz Test Project mission neared completion this week as the countdown demonstration tests and the final joint mission simulation between Houston and Moscow were run.

Apollo crewmen Thomas P. Stafford, Donald K. Slayton and Vance D. Brand today were scheduled to be in their couches aboard the Apollo spacecraft at Launch Complex 39 for the "dry" countdown demonstration test in which prelaunch activities up to ignition are rehearsed. The "wet" countdown test with propellant loading of the Saturn IB launch vehicle was run yesterday.

Mission Control Centers at JSC and in Star City near Moscow were linked together for a 56-hour final joint simulation of Apollo-Soyuz joint orbital operations. The simulation began Sunday morning and ended Tuesday afternoon.

Apollo crewmen took part in the simulation in the Command Module

Simulator at JSC while their Soviet counterparts Alexey Leonov and Valeriy Kubasov were in a Soyuz simulator.

The Apollo Crew next week will participate in "Apollo solo" phase simulations with Mission Control Center-Houston, such as launch and reentry. In what time is left over, the Apollo crewmen receive Russian language instruction.

Stafford, Slayton and Brand went into medical isolation June 24 as part of the Flight Crew Health Stabilization Plan to head off any likelihood of infections and illnesses among the crew. Leonov and Kubasov went into the Soviet equivalent of medical isolation June 27 in their quarters at Star City. Both crews will fly to launch sites at Kennedy Space Center and Baykonur, Kazakhstan before launch. The Apollo crew will arrive at KSC July 13.

At a press conference before medical isolation began, Soyuz commander Leonov announced

# ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



Vol. 14 No. 14

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## NAF Program Now In Full Swing

Eight university students this summer are working at JSC under the Agency's National Aerospace Fellowship Program.

Included in the program are Ricky Alford, Michael Cates, Pamela Gearhart and Kathleen Stockton, Southeastern State University; Sharon Gude, Prairie View A&M University; Samuel Harris, Southern University; David Solis, Texas A&I University; and Larry Roberson, Tuskegee Institute.

The objective of the NAF Program is to encourage members of minority groups to undertake professional careers in scientific and engineering fields so that the number of highly trained persons in space-related science and technology will be more representative of

### Networks To Air Extensive Coverage

Beginning July 13, there will be extensive coverage of ASTP by all the television networks including CBS, NBC, ABC and PBS. The schedule follows: July 13, ABC Special, 8:30-9:30 p.m.; July 14, NBC Special, 3:30-4:00 p.m. and 10:30-11:00 p.m.; July 14, CBS Special, between 10:30 and 11:00 p.m.; and July 17, PBS Special, 8:00-10:00 p.m.

CBS will also run five Bicentennial Minutes narrations with Dr. Christopher Kraft, Glynn Lunney and the three ASTP astronauts as subjects. The "Minutes" will appear at the end of CBS's first prime time show each night. Airtime for each follows: Dr. Kraft, July 13; Gen. Stafford, July 15; Slayton, July 18; Lunney, July 20 and Brand, July 21.



**NAF** — Eight University students are working at JSC under NASA's National Aerospace Fellowship Program. They are assigned to various Directorates here. From left to right are Larry Roberson, Sharon Gude, David Solis, Kathleen Stockton, Ricky Alford, Pamela Gearhart, Michael Cates and Samuel Harris.

the population of the United States and so that NASA will be provided with future needed employees.

Seven universities participated in last year's NAF program, providing the Agency with 20 students.

NAF fellows at JSC are assigned to Engineering and Development, Life Sciences, Science and Applications, Data Systems and Analysis, and Flight Operations.

*(Continued on page 4)*

## JSC'ers Hold Key AIAA Positions

A number of JSC employees recently were elected or appointed to key positions for 1975-76 in the Houston Section of the American Institute of Aeronautics and Astronautics (AIAA).

Chester Vaughan, EP6, serves as Vice-Chairman, Technical, and Clay Hicks, CF, is Vice-Chairman, Operations. Elected to the Section Council were Mark Craig, EX3; Dean Grimm, ED; Kenneth Kleinknecht, CA; Jack Heberlig, LP; and Warren North, CA.

Serving as committee chairmen are Bill Simmons, EP4, Membership; Ernest Hillje, EX3, Education; Carl Huss, FD, Legislative Affairs;

Tom Murtagh, FM9, University Affairs; Joe Aligranti, CC, Representative to the Regional Advisory Council; Norman Chaffee, EP4, Communications; Dean Grimm, ED, Technical Applications. Houston Section Chairman of AIAA is Loren Wood of TRW.

AIAA activities for 1975 got underway June 18 with Dr. Peter Glaser of Arthur D. Little, Inc., addressing a crowd of over 100 at the Gilruth Recreation Center on Satellite Solar Power Stations.

For information on AIAA or other technical societies, contact Bill Simmons, X-4971.

## Throughout NASA

### NEW FACILITY

Dr. James C. Fletcher, NASA Administrator, recently dedicated NASA's newly-expanded Scientific and Technical Information Facility in Linthicum Heights, Md., near the Baltimore-Washington International Airport. The facility is one of the largest and most comprehensive technical data banks in the world. It serves as the central depository for over 1.2 million items of aerospace-derived technology -- the product of more than 15 years of NASA space and aerospace research.

### WORKSHOP

University and government scientists have gathered at Ames Research Center, Mountain View, Calif., for a 10-week workshop on space colonization. Among the ideas being considered are the creation of an artificial planetoid and use of the planet Mars or Venus as places where mankind could emigrate.

### QCGAT

Lewis Research Center has begun a Quiet, Clean General Aviation Turbofan (QCGAT) program in its effort to meet present and proposed U.S. environmental standards for general aircraft engines.

### APPOINTMENT

S. Neil Hosenball, Deputy General Counsel, has been appointed NASA's General Counsel. He has been Acting General Counsel since R. Tenney Johnson was named General Counsel of the Energy Research and Development Administration in February.

### GANYMEDE

Jupiter's largest moon, Gany-mede, has been probed by radar for the first time and found to have a rougher surface than the inner planets. The big Jovian satellite -- slightly larger than the planet Mercury -- is considerably rougher than Mercury, Mars or Venus, according to Dr. Richard M. Goldstein of the Jet Propulsion Laboratory.

### MHD

Lewis Research Center recently hosted a worldwide symposium of specialists in closed-cycle magneto-hydrodynamic (MHD) power generation systems. MHD is a process by which thermal energy is converted directly to electrical energy by passing a hot, electrically conduct inert gas across a magnetic field.



**AIAA OFFICERS** — Pictured above are some of the JSC employees recently elected to offices in the American Institute of Aeronautics and Astronautics (AIAA) Houston, Section. From left to right are Mark Craig, Warren North, Chester Vaughan, Kenneth Kleinknecht and Jack Heberlig.

# HURRICANE TRACKING CHART AND STORM INFORMATION

Compiled by the National Weather Service

This hurricane tracking chart and storm information is designed for the Galveston Bay and Freeport Area. This is one of the most vulnerable areas along the Texas Coast for hurricane damage due to so many people living near the shoreline and at low elevations. The seriousness of the situation has become more aggravated within the past several years due to the severe land subsidence, amounting to as much as 4 to 5 feet in the Texas City, Kemah-Seabrook Area; 5 to 6 feet in the Baytown and lower ship channel area and 7 to 8 feet further up the ship channel.

There are over 300,000 persons who live within 10 miles of Galveston Bay and Brazoria County that are subject to tidal flooding during a major hurricane. When we consider that National Weather Service records show that approximately 9 of 10 lives lost in hurricanes are caused by drowning from tidal waters, we indeed, have the potential of a very grave disaster.

Therefore the National Weather Service urges that all persons who are subject to tidal flooding during a major hurricane, relocate inland or to higher ground. We hope the information provided below and the accompanying tracking chart will aid you in making the proper decision when the next hurricane threatens the Upper Texas Coast.

Davis Benton  
Meteorologist in Charge  
NWS, Galveston, Texas

### Storm Tide Evacuation Information For the Galveston Bay & Freeport Areas

Listed below are some of the major routes leading out from coastal areas with less than 8 foot elevations above mean sea level (MSL), most are 5 feet or lower. This means that most all escape routes in this area will be cut off when tides reach these levels. This does not take in consideration flooding from fresh water or heavy rains that often precede and occur with hurricanes, only salt water flooding from high tides. Therefore, it is conceivable that many roadways with higher elevations could become impassable from rain waters. This is not intended to be a complete listing, only the most traveled. Also, keep in mind these are subject to change and quite often do, due to the land subsidence, poor drainage, highway construction and erosion from the Gulf.

#### Galveston Island and Bolivar Peninsula

Five foot tides could virtually isolate Galveston Island from the Mainland.

Road elevations on IH 45 just south of La Marque, near the railroad overpass, is now down to 5 feet above MSL.

Other elevations on IH 45: 8 feet between 61st street and causeway; 6 feet between causeway and Wye on outgoing land; 8 feet on incoming lane.

Five foot tides will isolate West Galveston Island from

Galveston.

Five foot tides will isolate Bolivar Peninsula from the Mainland. Normally, the ferry ceases operation when tides reach three foot tides isolate Bolivar Peninsula from High Island to the northeast. Highway 87 near Gilchrist and just south of Island has elevations of 3 feet MSL.

San Luis Pass bridge normally is closed when tides reach five feet since the road on the Brazoria county side becomes impassable.

Four foot tides will begin to put water over Highways 146 and Hitchcock and on Highway 146 between the Texas City Levee.

#### Texas City Area

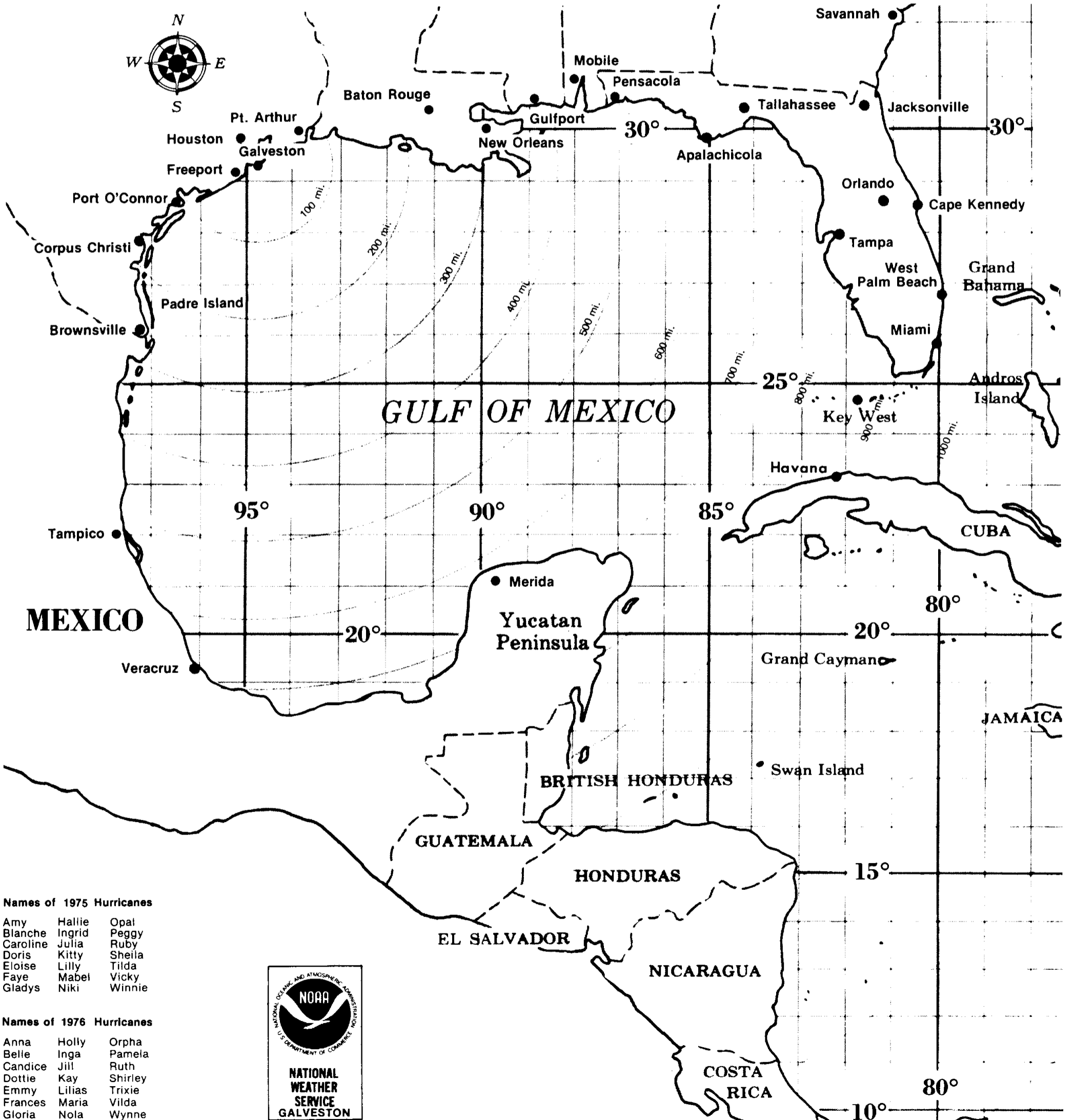
Loop 197 between Junctions of Highways 3 and 146 and Texas City Levee . . . . . 3 feet above MSL.

Texas Avenue or FM 1765 between 29th street and Highway 146 . . . . . 6 feet above MSL.

FM 1764 or Palmer Highway between 29th street and Highway 146 . . . . . 4 feet above MSL.

Loop 197 north, between 29th street and Highway 146 . . . . . 6 feet above MSL.

Highway 146 between Texas City and Dickinson Bayou, at Moses Lake . . . . . 4 feet above MSL.



#### Names of 1975 Hurricanes

- |          |        |        |
|----------|--------|--------|
| Amy      | Hallie | Opal   |
| Blanche  | Ingrid | Peggy  |
| Caroline | Julia  | Ruby   |
| Doris    | Kitty  | Sheila |
| Eloise   | Lilly  | Tilda  |
| Faye     | Mabel  | Vicky  |
| Gladys   | Niki   | Winnie |

#### Names of 1976 Hurricanes

- |         |        |         |
|---------|--------|---------|
| Anna    | Holly  | Orpha   |
| Belle   | Inga   | Pamela  |
| Candice | Jill   | Ruth    |
| Dottie  | Kay    | Shirley |
| Emmy    | Lilias | Trixie  |
| Frances | Maria  | Vilda   |
| Gloria  | Nola   | Wynne   |



# ION FOR THE GALVESTON BAY AND FREEPORT AREAS

## her Service, Galveston, Texas.

San Leon—Dickinson Area	
Galveston. 5 feet.	FM 517 south, between the San Leon Area at the Chamber of Commerce Building and Highway 146 ... 6 feet MSL.
and or to of High	FM 517 between Highway 146 and Dickinson on Gum Bayou ... 6 feet MSL.
h 3 feet, ded and	FM 517 north, between the Bay and Highway 146 at Bacliff ... 8 feet MSL.
Kemah—Seabrook and the NASA Area	
between the Wye	Highway 146 in Kemah between FM 2094 and Clear Creek ... 6 feet MSL.
and the	FM 2094 between Highway 146 and League City ... 7 feet MSL.
et MSL.	Highway 146 in Seabrook between Clear Creek and NASA Road 1 ... 5 feet MSL.
et MSL.	Todville Road between Hammer street and Highway 146 ... 5 feet MSL.
et MSL.	NASA Road 1 between Highway 146 and Spacecraft Center ... 6 feet MSL.
5 feet.	Red Bluff Road between Highway 146 and Bay Area Blvd ... 3 feet MSL.
	Bayport Road (Old Highway 146) between Todville Road & La Porte ... 6 feet.
Baytown Area	
	Lynchburg Ferry crossing on Highway 134 ... 4 feet MSL.
	Bayway drive in Baytown, near Scott Bayou ... 6 feet MSL.
	Market Street in Baytown, at Goose Creek ... 4 feet MSL.
	West Main in Baytown at Goose Creek ... 4 feet MSL.
	Highway 146 in Baytown at Goose Creek ... 8 feet MSL.
	FM 2354 at Cedar Bayou ... 3 feet MSL on Baytown side; 5 feet MSL on Chambers County side.
Anahuac—Chambers County Area	
	West Bayshore Road between Oak Island and Anahuac ... 4 feet MSL.
	FM 562 leading out from Smith Point ... 5 feet MSL.
	FM 1985 (Whites Ranch Road) between FM 562 and Highway 124 ... 7 feet MSL.
	Highway 124 between High Island and Junction FM 1985 ... 4 feet MSL.
Freeport Area	
	Five foot tides will cut off escape routes from Surfside.
	Five foot tides will flood FM 523 between Highway 332 and FM 2004.
	Five foot tides will flood FM Road 2918 leading out from the coast near the mouth of the San Bernard River.
	Highway 288 leading out from Freeport 8 feet MSL.

### Hurricane Season June 1 thru Nov. 30 Peak months are Aug. & Sept.

Number of Tropical Storms and Hurricanes, by month, that has affected the Galveston-Freeport Area in the past 100 years.

June	4	July	8	August	12
September	14	October	4	November	0

Ten of these were considered major storms, that inflicted heavy loss of life and property damage. Winds were in excess of 100 MPH and tides above 10 feet. The 1900, 1909, 1915, 1932, 1943 and Carla of 1961 were the most severe in this century. They killed over 6,000 persons.

### Recommended Actions Prior to Hurricane Season or Before a Watch

1. Know the elevation above MSL of your home or place of business.
2. Familiarize yourself with past flooding in your area. Is your home subject to tidal flooding with 6 foot tides? 8 foot? 10 foot? etc.
3. Have your route picked out or planned, if it becomes necessary to relocate to a place of safety or higher ground.
4. If you live in a Mobile Home, Pre-arrange for safe shelter.
5. Know the locations of storm shelters in your area.
6. Check your insurance coverage.

### Hurricane Watch

Does not mean that hurricane conditions are imminent but there is a real possibility that the hurricane will threaten this area within 24 hours.

### RECOMMENDED ACTIONS WHEN A WATCH IS ISSUED FOR THIS AREA and SOME SUPPLIES YOU SHOULD ARRANGE FOR

1. Fresh batteries for your radio and flashlights.
2. Candles, lamps and matches.
3. Non-Perishable foods, canned goods and drinking water containers.
4. Materials for boarding up windows & other glass openings such as boards, lumber & tape.
5. Gas-up your automobile.
6. Prepare to moor your boat or move it to safer shelter.
7. Monitor progress of storm via radio or TV.

### Hurricane Warning

When a warning is issued, it means that hurricane conditions are expected within 24 hours. High tides, winds in excess of 74 MPH, heavy rains and flooding and the possibility of Tornadoes.

### Take the following actions immediately

1. If in mobile home, check tie-downs and leave. Never remain in mobile home if hurricane winds are expected.
2. If home is subject to flooding, prepare to leave for higher ground.
  - a. Board-Up large windows and other exposed glass.
  - b. All outside loose objects should be placed inside.
  - c. Move your most valuable possessions that you cannot take with you, to higher points within your home.
3. If you remain at home
  - a. Stay indoors, on leeward or downwind side of house and away from windows or glass doors.
  - b. Beware of the Eye of the Hurricane. Do not be fooled by a lull in the wind, it could be that you are in the eye; if so, extremely high winds, above hurricane force, will rise rapidly from the opposite direction in a matter of minutes.

There are many other actions that can be taken prior and during a storm. Conditions will vary considerable, depending on the strength of the storm, your particular location, type of building construction, and the ever-changing road

building and elevations due to the land subsidence.

### After the Storm

Frequently, persons who have weathered or survived a storm venture outside and are electrocuted by blown down power lines.

1. Do not touch or go near fallen utility lines.
2. Make sure you see where you are walking. If it's dark stay inside or if water remains, take no chances in wading unless absolutely necessary.
3. Drive with extreme caution, especially where roads are still under water.
4. Poisonous snakes and insects are always a threat in this area during the post-storm clean-up.
5. Guard against spoiled food, contaminated water and fires.

### Hurricane Terms That Are Commonly Used

**Tropical Disturbance**—An area of disturbed weather in the tropics that has the potential of storm development.

**Tropical Depression**—A closed low pressure circulation at the surface in the tropics with winds up to 39 MPH.

**Tropical Storm**—A closed low pressure circulation at the surface in the tropics with winds 39 to 73 MPH.

**Hurricane**—A closed low pressure circulation in the tropics with winds in excess of 74 MPH.

**Small Craft Advisory**—When issued in conjunction with possible hurricane conditions for this area, advises small craft operators to take precautions and not to venture into the open Gulf.

**Gale Warnings**—When winds of 38 to 55 MPH are expected.

**Storm Warning**—When winds of 55 to 74 MPH expected. Normally, not used in the Gulf or this area, usually Hurricane warnings follow Gale warnings.

**Hurricane Watch**—Hurricane may threaten this area within 24 hours.

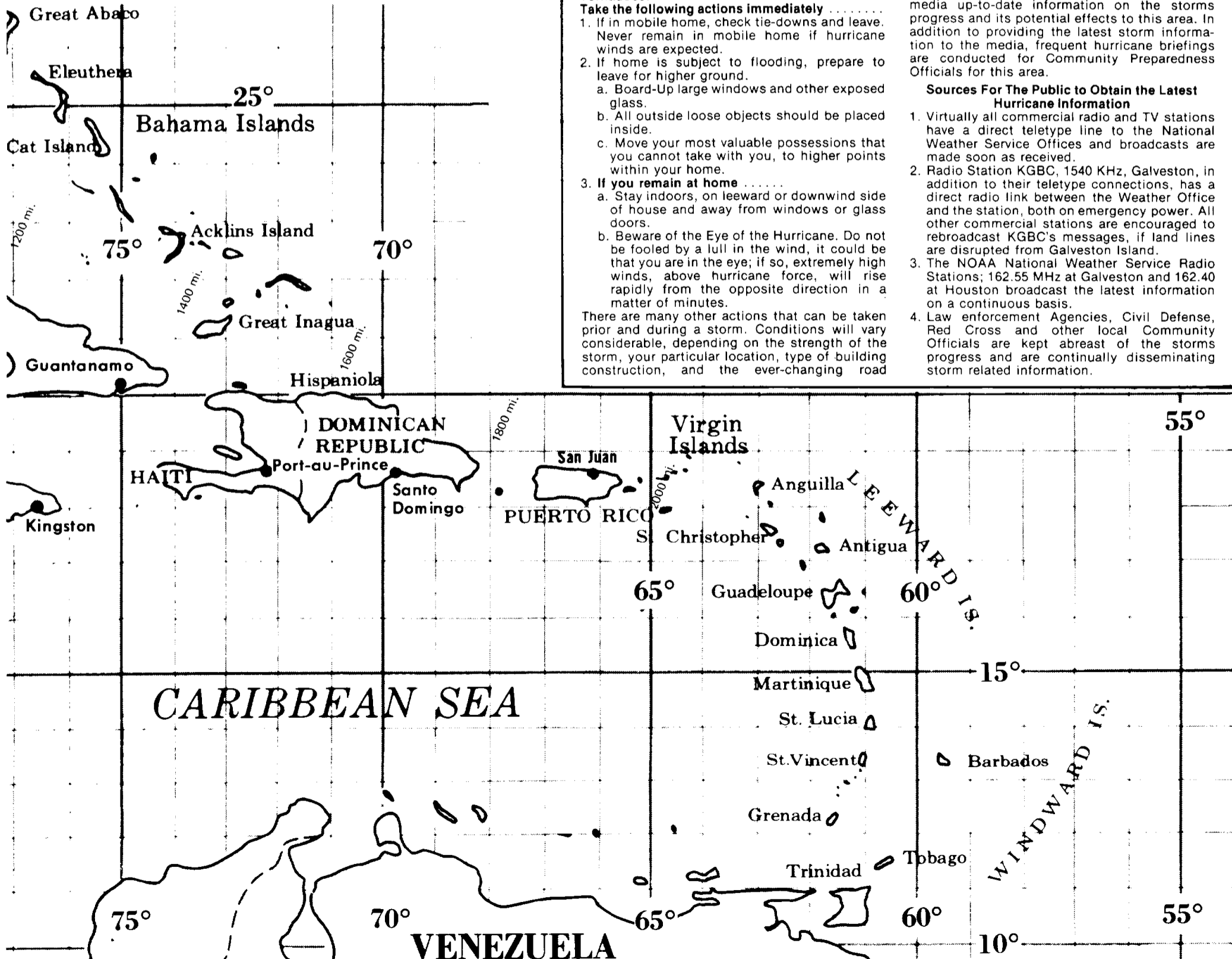
**Hurricane Warning**—Hurricane force winds or high tides and seas are expected to strike this area within 24 hours.

### When a Hurricane Threatens the Texas Coast

An Emergency Hurricane Information Center is established at the National Weather Service in Galveston to disseminate hurricane warnings to persons along the Upper Texas Coast. The long range radar, tide stations and other meteorological sensors along with the NWS vast communications network affords the news media up-to-date information on the storms progress and its potential effects to this area. In addition to providing the latest storm information to the media, frequent hurricane briefings are conducted for Community Preparedness Officials for this area.

### Sources For The Public to Obtain the Latest Hurricane Information

1. Virtually all commercial radio and TV stations have a direct teletype line to the National Weather Service Offices and broadcasts are made soon as received.
2. Radio Station KGBC, 1540 KHz, Galveston, in addition to their teletype connections, has a direct radio link between the Weather Office and the station, both on emergency power. All other commercial stations are encouraged to rebroadcast KGBC's messages, if land lines are disrupted from Galveston Island.
3. The NOAA National Weather Service Radio Stations; 162.55 MHz at Galveston and 162.40 at Houston broadcast the latest information on a continuous basis.
4. Law enforcement Agencies, Civil Defense, Red Cross and other local Community Officials are kept abreast of the storms progress and are continually disseminating storm related information.



## JSC or Japan: That Was The Question

The year was 1961 . . . The President and Congress of the United States had committed the Nation to land a man on the moon before the end of the decade . . . Phoncille DeVore had a big decision to make.

Her supervisor, who was special assistant to the Director of the newly formed Manned Spacecraft Center, requested that Phoncille transfer with the Space Task Group to Houston; and her husband, a Career Air Force Officer, received orders to go to Japan. "Having already spent three years in Japan, I was not eager to go back, so I persuaded my husband to let me go to Texas which was my home state, while he spent his last two years of service in Japan," Phoncille recalled.

She remarked that working with the space program has been one of the most exciting experiences of her life.

Phoncille was the first secretary assigned to the Apollo Spacecraft Program Office and had progressed to administrative assistant to the Associate Director of the Center when she began her professional

career as an Awards Program Specialist. Her primary responsibility was to prepare lengthy recommendations and biographical write-ups for Center employees who had been nominated for special awards.



Phoncille DeVore

Always interested in writing, Phoncille was anxious to begin her new career; her opportunity came sooner than she anticipated. "The first day in my new position, before I could unpack my boxes, I received my first assignment. I was to write a nomination for then Deputy

Director Christopher C. Kraft who had been nominated to receive the American Astronautical Society's Space Flight Award. He was chosen for the award and I was so pleased that I felt as though I had won it myself!" Phoncille exclaimed.

Since that time, she has researched and prepared numerous writeups, generally for non-federal awards — and has gained a reputation as one of the most accurate writers of technical and biographical information at JSC. Because of her expertise and experience, she frequently is asked advice by the Awards Officers at other NASA Centers.

The "fun part" of her job, she says, is helping to organize the Awards Ceremonies. Among other assignments, she prepares the Awards Program booklets and assists with the awards presentations.

The list of contributions Phoncille has made to the Awards Office and to the Center is endless, "But above all other things I have accomplished, I think I have found the most pleasure in implementing an Outstanding Secretary Award for our Center," Phoncille said. She hopes that the idea will be implemented throughout the Agency.

Another contribution Phoncille made to the Center goes back to her Langley days. While working with the Space Task Group there, she participated in a contest to name the first official publication of the Center. Her suggestion, the Roundup, was selected from among numerous names submitted.

Phoncille is a member of the American Business Women's Association, Altrusa International, the JSC Federal Women's Program Advisory Committee, and a number of other organizations.

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



WORKSHOP — Some of the participants of the Aerospace Education Workshop held recently at JSC listen intently to Jim Poindexter, Education Specialist as he describes some of NASA's spacecraft. The Workshop was held June 9-20.

## Workshop Held For Teachers

Forty-seven area teachers participated in an Aerospace Education Workshop held recently at JSC. The workshop was sponsored by JSC, the University of Houston and the Civil Air Patrol.

Topics covered during workshop sessions were Lunar Science, Earth Resources, Space Shuttle, ASTP, Aerospace Medicine, Food and Nutrition and a number of other subjects.

NASA speakers and resource persons were on hand for the sessions.

Field trips included a tour of Ellington Air Force Base and an airlift to Eglin Air Force Base, Florida.

Three semester hours were offered by the University of Houston for participants in the ten-day workshop.

## Employee Dies

Delmar A. Kimbark, former chief of the JSC administrative communications center, died recently in a local hospital following a brief illness. Kimbark served in the U.S. Navy during World War II and was later employed by the U.S. Air Force. He came to JSC in March 1964 and remained until his retirement in December 1971. He is survived by an aunt, Mrs. Mildred Mellis of Beacon, New York.



Delmar A. Kimbark

## Attention!

The time has come to start training for the first annual JSC superteam competition. Patterned after the professional sports program, teams will compete in tug-of-war, softball, volleyball, basketball and distance relays. Points will be awarded to the first four places in each event. The team which accumulates the most points will be the Superteam for 1975. Deadline for entering is August 30. Form teams now and contact Doug Burns, X3594 for further information.

## SPACEPEX SALUTES ASTP

"Salute to the Apollo-Soyuz Test Project" is the theme of the fifth annual stamp exhibition, SPACEPEX-75, which will be held July 25-27 at the Holiday Inn, 1300 NASA Road 1. The event is sponsored by the JSC Stamp Club.

A number of Center employees as well as many other stamp collectors will exhibit space related stamps and covers and will compete for awards such as the American Philately Society Certificate of Award, the Apfelbaum Award, the JSC Philately Award and a sterling silver medallion.

There are no restrictions for competitors entering the space topi-

cal category; however, all other categories are restricted to Texas Residents, members of the Texas Philatelic Association, or to JSC Stamp Club members.

A commemorative cancellation postmark has been approved by the U.S. Postal Service which will operate the JSC SPACEPEX July 15-17 in addition to the three days of the exhibition.

A set of three covers with different cachets to commemorate launch, docking, and splashdown will be available at \$1.50 per set.

Contact Lee Scamp, 18322 Point Lookout Drive, Houston 77058 for more information.

## ASTP Preparations (Continued from page 1)

that Salyut 4 crewmen Pyotr Klimuk and Vitaly Sevastyanov will remain aboard the space station

during the ASTP mission. Klimuk and Sevastyanov today began their 41st day aboard Salyut.

Simultaneous flight by Salyut, Apollo and Soyuz will bring the number of men in space at one time to seven. The Soviet Union previously had seven cosmonauts in space in October 1969 when Soyuz 6 and 8 each with a crew of two, and Soyuz 7 with a crew of three, all were spaceborne at the same time.

## NAF

(Continued from page 1)

NASA grants for the NAF Program are awarded to universities, not to individual students; therefore, institutions receiving grants are responsible for selecting students who will participate in the program. NAF students must have completed at least two years of work at the under-graduate level, and must be in the upper third of the class.

The NAF program, is administered at JSC by the Employee Development Branch of the Personnel Office.



## ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS



The Roundup is an official publication of the National Aeronautics 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

## 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

Unusual opportunity to buy genuine antiques from England to be auctioned Thursday, July 10th, Morgan 4193.

Rotary mower, 22", self-propelled, w/ grass catcher, 488-1758.

Used adding machines, commercial quality, Remington Rand, \$25-\$40, Speier, 333-2263.

Full-size pool table, li nw, wall rack and 4 cue sticks \$200, 471-3097.

Two G78x14 used wsw tires, 2-stripe, \$10 ea, 10 spd bike, \$35, 333-2395.

Hooker headers 69 Dodge, 340 eng, \$50, elec stove, \$20, 2 kitchen sinks complete w/ hardware, \$15 ea, Crain, 946-4458.

### VEHICLES

Sold truck, stuck w/ camper, Cabover, Poptop, icebox, butane stove, sleeps 4, make ofr, 332-6056.

Mini-bike, nds throttle cable, 644-0315.

24" 10 spd bike li nw, \$49, 534-6133.

75 Ford pickup 3/4 ton xint f-250, 6900GVW, 4,700 mi, loaded, fender tool box, 2 gas tanks, etc, 641-1583.

67 El Camino, gd work car, 644-0315.

72 Plymouth, 9 pass, wgn, air, radio, auto trans, pwr b/s, \$1800 554-2330, League City.

69 Cadillac Sedan Deville, 70,000 miles, full power, a/c, AM-FM dual comfort seats, nw tires, exhaust, paint, dark brown vinyl top, cocoa brown bottom, dark brown leather interior, xint cndn, \$1,450, Schmidt, 3734 or 472-8908 aft 5:30.

73 Maverick, 4-dr, 19,000 mi, 302 V8, auto trans, a/c, ps, vinyl top, 4 nw

tires, xInt cndn, \$2,500, Harris, 944-2131.

69 Olds Cutlass, ht, 4-dr, 350 eng, loaded \$800, 488-0228 home, 483-5298 off.

Rent, 16' Golden Falcon travel trailer, self-contained, xint cndn, slps 6, 488-2387, x2816.

Rent nw coleman crank-up camper, sink, stove, water tank, ice bx, slps 6, delux, 488-2387, x2816.

73 Beechcraft Sundowner, 380 hrs engn time, full IFR panel, dual NAV/COM, ADF, DME, TXP, ELT, glide slope, marker beacon, strobes, \$21,000, will lease back, Schmidt, 472-8908 aft 5.

### HOUSEHOLD ARTICLES

Zenith color tv console, 21", gd cndn, \$100, Teasdale, x2981/481-6074.

21" GE Portable B&W tv w/stand gd cndn, \$70, Teasdale, 2981/481-6074.

Two large bookshelf speakers, ea w/ two 10" and two 4" walnut cabinets, gd cndn, \$53, 488-3966.

23" RCA color TV, beautiful wood cabinet, gd cndn \$95, Handley, x4776 or 482-7041.

Drexel knotty pine furniture, chest on chest, \$60, single chest, green and gold, \$40, desk chest \$50, x4788 or 488-6310.

Elect cooktop, GE, coppertone, xint cndn, \$45, aft 5 Frances Barbee, 721-1538.

### PROPERTY AND RENTALS

Friendswood, 3-2-3 Custom built comp, acre lot fruit and pecans, appraised at \$56,500.00, 482-7837.

Beautiful sandy lot near lake in Florida, approx 200' elevation, payments

\$59/mo @ 7 percent equity \$993, make ofr, must sell, Mark, 422-0008.

### PETS

Cairn Terrier, AKC reg, male, 10 mos old, free to gd home loves children, Carver 2131 or 334-1764 aft 5.

AKC miniature Schnauzer pups, xint pedigree, beautiful, healthy, place orders now, ready July 17, \$100 ea, Sharon Thompson, 481-1518.

AKC registered wirehair fox terriers, male, 1 yr old, \$100, female, 18 mos old, \$80, 485-3450.

Black female retriever, 5 mos, papers, shots, \$75, dog house available, 334-1925 or 483-4511.

### BOATS

Holmes Mah, o/bd 16' fully eq, 75 hp Evinrude, r/lights, 2 gas tanks, L/jackets cany cover for boat, 2 wh tr wi winch, \$850, Brian 529-3558.

19 ft Fiberglas deep V 101 hp IO, trailer, cutty cabin w/ head, many extras, gd cndn, 2-yr-old, \$3200, Wilkes, 1-925-3654 or x3231.

### WANTED

Join carpool from Southwest Houston to JSC 8-4:30, Joan, 3507.

Grand piano, Roth, 2844 or 488-6876.

Used flute, Lyle, 2831.

Two 26" bikes, will pay up to \$25, nd one ladies' one mans', Diaz, 5404 or 3734.

Nd member to join existing carpool from Meyerland area to JSC, 8:30-5. Rangel, 5965 or 774-1607.

Want to form carpool from Hiram Clark/South Post Oak area, hrs flexible, Jeanie, 5834 or 433-3750.