

## JSC to hold open house July 20

Shuttle buses will transport tourists around the Center. A postal sub-station will cancel special commemorative stamps in the Building 2 Museum. Special souvenirs—coins, pennants, and ashtrays—will be sold, and two new visitor attractions will officially open.

Space Day, July 20, is the tenth anniversary of man's first walk on the Moon; and JSC expects over 20,000 visitors that day. The schedule of events is as follows:

- 9:00 Christopher Kraft opens postal sub-station
- 9:30 Dedication of Building 31A, Lunar Curatorial Facility
- 10:00 Dedication of Rocket Park (by the main entrance)
- 11:00 Tranquility Park ceremonies in Houston.

That day, Building 32 will be open on a special guided tour basis, with Space En-

vironment Simulation Lab (SESL) employees explaining test hardware on the floor and in the chambers. Also, the Anechoic Chamber will be open for a special walk-by tour.

Apollo 11 films will show continuously in Building 2 Auditorium. Between showings there will be a quick slide show on the Space Shuttle, with briefings from astronauts.

In Mission Control Center, visitors will watch TV tapes of the last ten minutes before Apollo 11 touchdown.

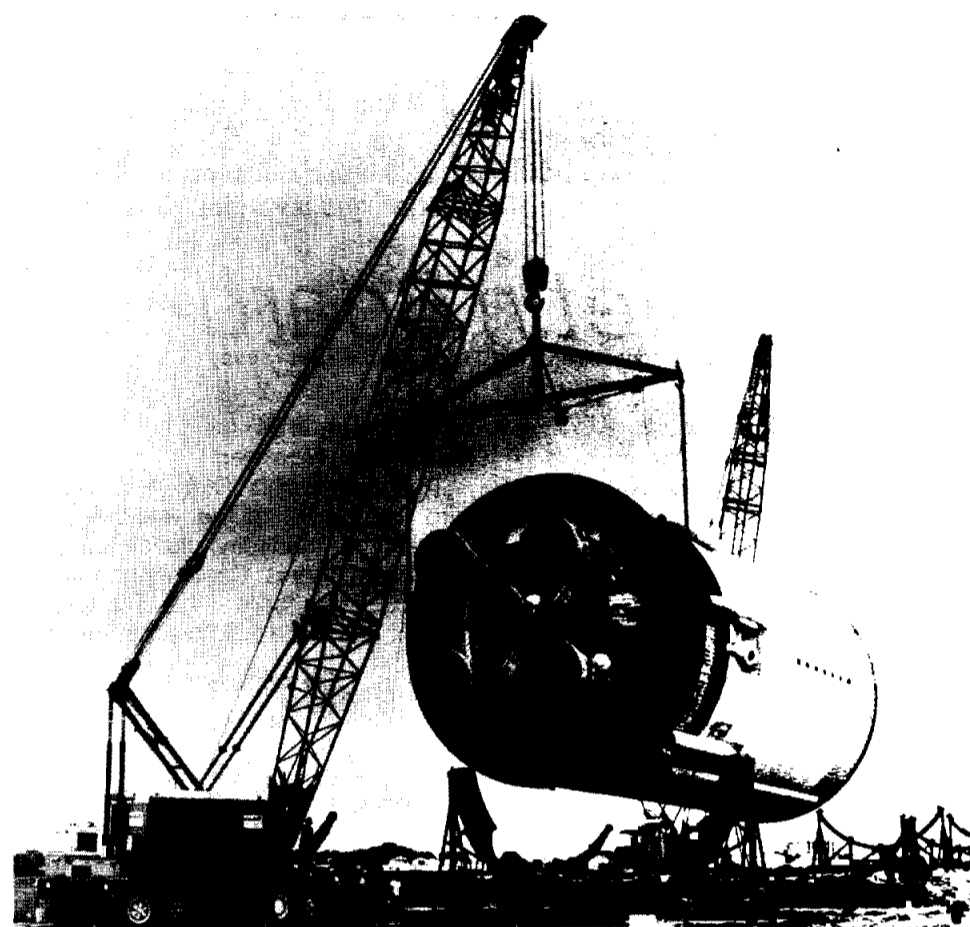
Nationwide, NASA plans special programs. The Apollo 11 crew will hold a press conference at the National Air and Space Museum in Washington in front of the Lunar Module exhibit. Former NASA administrator James Webb will host, and Alan Lovelace will be Master of Ceremonies.

John Young and Bob Crippen, the first Shuttle crew, will give a presentation on the Space Transportation System, and NASA Administrator Robert Frosch will speak on NASA's future.

That afternoon the Apollo 11 crew will go to the White House to present the President with the flag that flew on Apollo 11.

All NASA field centers plan special events, plus other organizations plan programs in Las Vegas, St. Louis, and Boston.

A Lunar Module will be on display at the United Nations in New York, after being dedicated on June 22 coinciding with a meeting of the UN Committee on Outer Space.



Preparations for Rocket Park, new visitor attraction

The Washington press conference will open with the touchdown tape: "Cap-Com: There are smiling faces all over the world."

"LM: And two smiling faces on the Moon."

### A Cool Diet

Eat a simple diet, drink plenty of fluids, and guard against food spoilage, says physiologist Rita Rapp advising on how to beat the heat with foods.

Rapp has been in charge of food preparation for the astronauts since the Mercury missions.

"In hot weather replacement of fluids is especially important," Rapp says, adding that citrus drinks such as lemonade also replace electrolytes (sodium and potassium) that you lose from perspiring.

She recommends a simple diet of salads and fresh fruits as opposed to deep-fried or gourmet foods.

Extra calories mean extra body heat. "But still be sure to get adequate protein, vegetables and fruits, cereal, and dairy products," she adds.

Her third tip is to remember that food spoils quickly in the summer. Chill sandwiches and any foods brought from home for lunch.

### First Decade... Lunar Landing 1969-1979



Official anniversary logo

## Skylab in new mode; fuel holding out

Skylab is falling in its orbit at a rate of one and one-tenth miles a day. As of *Roundup* press time, the space station has dropped ten miles since Wednesday, June 19 when Mission Control Center commanded the vehicle into a new attitude.

This new attitude is designed to keep the 79-ton vehicle under control so ground controllers may be able to adjust or influence its attitude prior to reentry.

The torque-equilibrium attitude (TEA) places the vehicle sideways in its path of flight. In this position two separate forces act together to steady the craft. The solar arrays are on the backside, away from the "wind," allowing the vehicle to act some-

what like a weathervane. The second force at work is the Earth's gravity pulling equally on all parts of the vehicle.

Skylab went out of its sideways mode four and a half hours Sunday, June 24, when computer commands were passed up in the wrong sequence. At 3:30 p.m., when the vehicle again moved within range of a tracking station, controllers returned Skylab to TEA.

Before the June 19 maneuver, when Skylab was in a solar inertial attitude, management of the craft would have become impossible once it descended to about 255 km (159 mi.) due to density in the atmosphere.

The maneuver June 19 used 621

pound-seconds of thruster fuel. Skylab lost another 1014 pound-seconds during the tumble June 24, leaving less than 6000 pound-seconds of the fuel which controllers hope to be able to use in influencing reentry.

Aerodynamicists chose June 19 for the maneuver because at that time the spacecraft was at 270 km (166 mi.) and still stabilized, and because on that date the Sun was at a favorable angle to provide power to operate onboard systems in the TEA orientation.

At *Roundup* press time, the space station is approximately 241 km (150 mi.) above Earth. Expected date of reentry is between July 10 and July 20.



Bob McCall's JSC mural, "Opening the Space Frontier—the Next Giant Step," at June 14 dedication



Suggestion, Tech Brief, and Invention Award winners for June 1979

At left: First row: Reuben Taylor (Tech Briefs), Mary Ferguson (Suggestion), Stuart Lenett, Herbert Kobayashi, and Salvador Villarreal (Inventions). Second row: Hannah Thornton, Wanda Thrower, C. W. Vowell, Robert Kelso (Suggestions), Joe Fowler (Invention), H. E. Clements who presented the awards, Burl Kirkland, William Whipkey (Suggestions), Frederic Dawn, Marion Wood (Tech Briefs), James Pawlowski (Invention), and Stan Avent (Suggestion).

## Bulletin Board

Please limit announcements to 10 lines, double-spaced copy

### Your Contribution Could Save a Life

The second JSC Blood Drive of 1979 will be held at Gilruth Center on July 19. Donors' dependents are covered for all blood replacements for 12 months. For appointment, please call Jim McBride, x-2541, or Helon Crawford, x-3197. Any onsite or support service employee may take part. For additional information, contact Helon Crawford.

### EAA Reps Have Order Forms For Alley Theatre Subscriptions

Season tickets are available for next year's five performances at Houston's famous Alley Theatre for the low price of \$24.50. See your EAA rep or bulletin board for an Alley Theatre brochure which contains an order form for subscribers. Your check will be cashed or charge card billed in September; coupon books will be home-mailed just prior to opening of the season in October. Send forms to Doris Wood, EF-1, x-2161.

### Spaceland Toastmasters Elect New Officers

Anngie Johnson has been elected the new president of Spaceland Toastmasters Club. Johnson, who is a NASA JSC Lead Engineer for the OFT Pallet Carrier for the Space Shuttle, has been active in Toastmasters since July 1977. Other officers to be installed July 1 are Edna McAnelly, Education Vice-President; Darrell Boyd, Administrative Vice-President; John Trebes, Secretary/Treasurer; and Tony Zertuche, Sergeant at Arms. Guests are invited to attend Spaceland's meetings. For information, contact Anngie Johnson at 483-2938.

### The Playing Was Hot as the Weather

The JSC Tennis Club held their third tournament of the year, Men's Doubles, on Saturday, June 16, at Strawberry Tennis Center. The play was hot as was the weather. The winners of the Men's A bracket were



Moolchan/Kelso (0-6, 6-3, 6-3) over Boor/Napier, the consolation round was won by Williams/Magin (6-1, 6-0) over Rich/Lakasinski. The Men's B/C bracket was won by Aubert/Joe Miller (7-5, 6-4) over Sinderson/John Miller,

the consolation round went to Taylor/Vincze (6-2, 4-6, 6-2) over White/Ballard. Many thanks to our tournament directors Carolyn Thompson and Jane Lehman for a job well done.

### Photos of Imperial China's Manchu Dynasty on Display

An exhibition by photographers who ventured into China to record the last years of the Manchu Dynasty, the period in which China opened up to foreign political and commercial interests (1850-1912), will be on display through July 22 at the Andrews Gallery at the Museum of Fine Arts, Houston.

### A Fun Run in Honor Of Man's Walk on the Moon

The Bay Area Running Club is directing a five km. fun run open to all comers in conjunction with the Lunar Rendezvous Festival. Scheduled for 8 a.m. on July 21, the run will start and finish at Gilruth Center. Trophies will go to the first overall male and female finishers, and area businesses have donated prizes for drawings. Early entry fee is \$3/adult and \$2/18 and under. Net proceeds go to the Bay Area Museum project. Contact Coye Mac Jones at 488-3976 or x-2657.

### On Sale at the JSC Exchange Store

(Store Hours 10 am to 2 pm)

Dean Goss tickets - \$10 single  
 \$20 couple (Reg. \$14.50)  
 ABC Theatre tickets - \$2 each  
 General Cinema tickets - \$2.40 each  
 Six Flags Over Texas tickets  
 \$7.25 for one day (Reg. \$9.25)  
 \$9.25 for two days (Reg. \$13.95)  
 Astroworld tickets - \$7.25 (Reg. \$9.25)  
 Magic Kingdom Cards - Free  
 Sea-Arama Marineworld Fun-Time Card - Free

### AIAA Plans Lunar Feast

The AIAA Houston Section will celebrate the 10th anniversary of the lunar landing with a dinner/dance at the Imperial Ballroom of the Hyatt Regency Hotel downtown Houston July 20. Dress is semi-formal with black tie optional. The fun starts at 7 p.m. with a "hosted bar," dinner at 7:45, and live entertainment including Buddy Brock and his 18-piece band. Tickets are available for \$25 at the JSC Exchange Store, or contact Ben Boykin 333-2030 x-211.

Roundup deadline is the first Wednesday after publication.

## England returns to astronaut corps

"The Shuttle system seemed like a good place to continue my research," said astronaut Tony England. "Also there was the sense of having started something in 1967 that I didn't finish. Maybe I'll get a chance to now."

England returned to the scientist astronaut corps June 3 after completing a three-year assignment as deputy-chief of geochemistry and geophysics with the U.S. Geological Survey.

He left the astronaut program in August 1972, soon after the Apollo program was cut from 20 to 17 launches. Since then he has worked closely with NASA as an advisor on several committees, and, more recently, with JPL as a co-investigator on an experiment that will fly on the second Shuttle mission.

"Right now I'm requalifying on the T-38 and doing WIF checkout renewals," England said.

He was selected as a scientist-astronaut by NASA in August 1967. He completed the initial academic training at NASA and a 53-week course in flight training at Laughlin AFB, Texas, and then was a support crewmember for the Apollo 13 and 16 flights.

England's background is in geology and physics. He earned his Ph.D. in that field from the Massachusetts Institute of Technology in 1970.



TONY ENGLAND—A sense of starting something I didn't finish

Photo by Jack Jacob

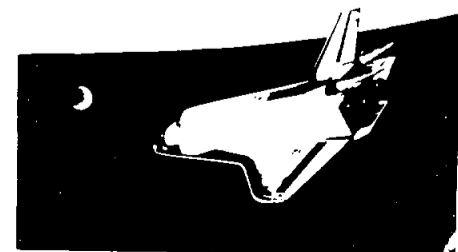
There will be no Bulletin Board section in the July 13 issue of Roundup. That issue will be a special edition for the tenth anniversary of the lunar landing July 20 Space Day. Club and organization reps, please note.



Try Carpooling

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.

Writer/Editor: Kay Ebeling



## An anachronism lives on

Recently Headquarters set Public Affairs style for writing linear measurement as: kilometers (miles) as in "3.5 meters (12 feet)." "It's about time," said one Newsroom employee, and dug out this article that ran in Roundup Nov. 12, 1965.

Back in 1324 A.D., King Edward II of England passed a law that "three barleycorns, round and dry" make an inch. In that day and time, the accuracy of barleycorns was probably sufficient for craftsmen building oxen yokes or laying out battlements atop castle walls.

Now past the mid-point of the 20th Century, at least in the United States, we are stuck with the 14th Century English system of measurement, with awkward fractions of twelfths, eighths, and sixteenths to cope with. The system of measuring weights and volumes—pounds, ounces, and cubic feet/inches—is certainly not less ungainly.

*It seems our planet is a more constant standard than a barleycorn.*

The western world had rocked along with the barleycorn system until 1793, when the first system of weights and measures with a scientific basis was adopted by the French in which everything is in multiples of ten, all related to a unit of measure called the meter. The meter was derived from one ten-millionth part of the surface distance of a line running from the North Pole through Paris to the Equator.

It seems logical that our planet is probably a more constant standard than a barleycorn.

Liquid measure, volume, acceleration, velocity, and all other types of measurement are directly related to the meter—which inconsequentially is equal to 39.37 inches, or 118.11 barleycorns.

Conversion from millimeters to centimeters, from meters to kilometers, is accomplished by simply shoving a decimal

point around a bit—no weird fractions like 11/64ths, 21/32nds, and infinitum.

Advancing technology the world over has demanded closer tolerances and speedier calculations, and for these reasons most industrial countries have long since adopted the metric system, including Iron Curtain countries. Even England, originator of the barleycorn system, recently went onto the metric standard.

*Conversion from meters to kilometers is accomplished by simply shoving a decimal point around a bit.*

The meter is, in fact, the legal unit of measure of the United States. And while some scientific disciplines in this country do use the metric system exclusively, there is quite a bit of resistance to adopting the meter as a standard of measure in day-to-day life—mostly an attitude of "what was good enough for Dad is good enough for me."

Certainly no one is advocating an overnight switch to the metric system, for to do so would obsolete billions of dollars invested in industrial tooling. But a gradual change over a period of 10 or 15 years would allow replacement of foot-and-inch equipment with metric equipment as the older equipment wore out.

"But I can't get used to a foot being 30.48 centimeters," argue some opponents of adoption of the metric system.

How many centimeters are in a foot, or how many inches are in a meter is irrelevant; one must learn to think metric and forget altogether the conversion from one system to another.

The foot-and-inches system is an anachronism in our technological society, but then some people would rather fight than switch.

*Sounds like it could have been written last week. Hopefully this article won't show up again in a 1995 edition of Roundup.*

## What's cookin' in the JSC cafeteria

### Week of July 2 - 6

**MONDAY:** French Onion Soup; Beef Chop Suey; Polish Sausage w/German Potato Salad; Breaded Veal Cutlet (Special); Okra & Tomatoes; Green Peas. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin; Selection of Salads, Sandwiches and Pies.

**TUESDAY:** Split Pea Soup; Shrimp Creole; Salisbury Steak; 8 oz T-Bone Steak; Fried Chicken (Special); Mixed Vegetables; Beets; Whipped Potatoes.

**WEDNESDAY:** HOLIDAY

**THURSDAY:** Chicken Noodle Soup; Beef Stroganoff; Turkey & Dressing; BBQ Smoked Link (Special); Lima Beans; Buttered Squash; Spanish Rice.

**FRIDAY:** Seafood Gumbo; Broiled Fish; Liver w/onions; Seafood Platter; Fried Shrimp; Meat Sauce & spaghetti (Special); Green Beans; Buttered Broccoli; Whipped Potatoes.

**WEDNESDAY:** Clam Chowder; Fried Catfish w/hush puppies; Braised Beef Ribs; Mexican Dinner (Special); Spanish Rice; Ranch Beans; Buttered Peas.

**THURSDAY:** Green Pea Soup; Corned Beef w/cabbage & New potatoes; Chicken & Dumplings; Tamales w/chili; Hamburger Steak w/onion gravy (Special); Navy Beans; Buttered Cabbage; Green Beans.

**FRIDAY:** Seafood Gumbo; Deviled Crabs; Broiled Halibut; Liver & Onions; BBQ Link (Special); Breaded Squash; Green Beans; Corn; New Potatoes.

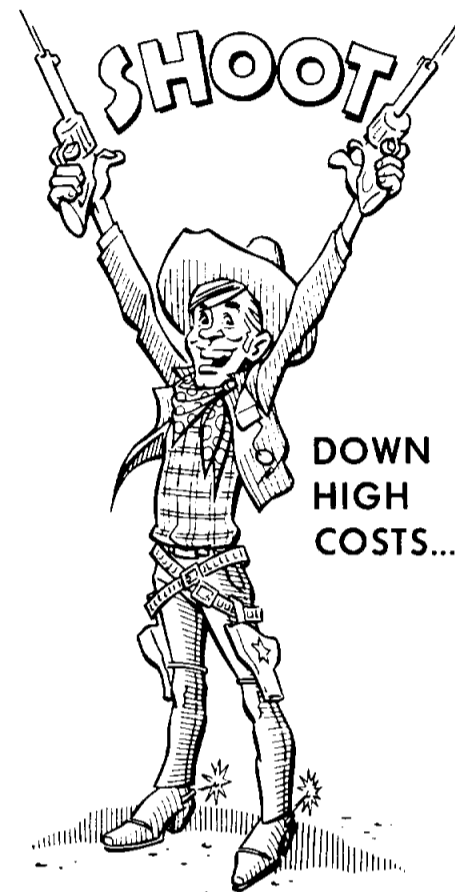
### Week of July 9 - 13

**MONDAY:** Beef & Barley Soup; Beef Chop Suey; Breaded Veal Cutlet w/cream gravy; Grilled Ham Steak; Weiners w/baked beans (Special); Whipped Potatoes, Brussels Sprouts; Buttered Rice. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin. Selection of Salads, Sandwiches & Pies.

**TUESDAY:** Celery Soup; Frito Pie; Turkey a la King; Pork Chop w/applesauce; Chinese Pepper Steak (Special); Au Gratin Potatoes, Breaded Squash; Buttered Spinach.

### NEBA FACT

In 1840 the legislature of the State of New York enacted a law which provided that the proceeds of a policy made out to a widow as beneficiary would be paid to her and were exempt from claims of creditors. This strengthened immeasurably the protective power of a life insurance policy.



**BY SENDING YOUR COST REDUCTION REPORT ON JSC FORM 1150 TO COST REDUCTION OFFICE BG-3 NOW!**

*Cartoon by Russ Byther*

## Roundup Swap Shop

### Property and Rentals

Lease: 3-2-2 Wood Meadow (near Sage-mont), refrig, drapes, fireplace. First, last, deposit, \$398/month. Molnar x6395.

House for Lease: 3 bedroom, \$300 monthly. Seabrook. Horton x3734.

Bolivar Beach Cottage, daily rental, families only. Horton x3734.

Summer roommates wanted: Two furnished bedrooms available on Bay in Kemah. Share kitchen, bath, bills \$150/month/person. Dagley x2691.

Vacation Lake Livingston Cape Royale 3-2-1, compl. furn home nestled among trees by the water, rent by wk/mo/yr. 488-4487.

Rent Waterfront Vacation Retreat, by marina at Cape Royale on Lake Livingston. New 3 bdrm. tennis, pool, golf, boat launch. By the week 488-3746.

Lease: Forest Bend 3-2-2, Fireplace, Fenced, formal dining room, refrigerator. \$475/month plus deposit. 482-4874.

Vacation Home, Southern Calif., near beach, Avail. July 18-Aug. 22. 4 bdrm., close to tourist attractions, \$645/mo. or \$21.80/day. 491-1351.

House for Lease: Middlebrook 3-2-2 fireplace, wetbar & fenced, icebox if necessary \$510 mo. 488-4444 or x2631 Tom.

Veteran tracts and Ranchettes, 8 minutes to Lake Bonham 554-2780. J. R. Elk

### Household Articles

Desk chair, wheeled, solid oak, armless, \$20. 474-2660.

G.E. built-in electric oven for 27-inch wide cabinet, avocado, good cond., \$50. 488-2318.

Upright deepfreeze. Good cond. \$100. 864-8002.

### Boats & Planes

American Fiberglass Daysailer 16' bunk cushions trailer ample room for two couples, \$2400. Will demonstrate performance. 666-1069 after 6.

Laser Sailboat, 14' of excitement. Red hull in very good cond, several extras for racing, \$875. Jones x2394 or 471-3303.

Outboard motor, Wards 7-1/2 hp, forward/neutral, integral tank/external connection, under 30 hours, \$150. Erickson x3528 or 649-0396.

14 ft. Sears Jet-Wind Sailboat, ABS corlite high performance hull, 82 sq. ft. sail, exc. cond., \$400. 482-7081 or x4395.

### Pets

Chow-chow puppies, outstanding litter, 2 males, 3 females, may be taken from mother in late June, \$150. Byrns 337-4984.

Free, healthy, lovable kittens. 334-3046. Looking for companionship? Beautiful spayed, declawed, calico cat. Free to good home. 488-6433.

**There will be no Swap Shop ads in the July 13 issue of Roundup. That issue will be a special edition for visitors for the tenth anniversary of the lunar landing July 20**

### Wanted

Reasonably-priced 15-ft. aluminum canoe. White 332-5177.

To rent or buy 8 x 12 tent to sleep 4. 488-5079.

### Miscellaneous

Stamp collector disposing of collection at face value. Mixture of 5 cent and 10 cent commemoratives at \$5/packet. Jeff x7429.

Rifle, Glenfield 22 single shot, like new, \$27. Wood x5169 or 333-2372.

Three old trunks, \$15-25 each. 333-4669. 16 cu. ft. Sears coldspot frost-free refrigerator, yellow, exc. cond. \$100. 482-7081 or x4395.

22,000 BTU window air cond. 220VAC only used 2 months of last season \$350.00 attic fan 36: with motor \$20.00. 471-3709 or x2305 Boles.

4 H78-15 tires mounted on ford van wheels, all including hubcaps for \$20. Gene X4471 or 488-6433.

Motorcross boots Size 10, (Torsten Hallman) New \$65 Sell for \$25. Ruger .22 cal rifle, used once, new \$92, sell \$50. Locke x2666.

Coleman tent, sleeps 4, good condition \$25. Pat Lafferty x4211 or 485-1997.

Victor welding regulators \$40/pair. Good cond. 864-8002.

Ads should be under 20 words, double spaced, typed or printed, one ad per person. Deadline for submitting or cancelling ads is 5:00 p.m. the first Wednesday after publication. Send ads to AP3 Roundup, or deliver them to the Newsroom, Building 2 annex. No phone-ins, please. Swap Shop is open to JSC federal and on-site contractor employees for non-commercial personal ads. Goods or services must be offered as advertised without regard to race, religion, sex, or national origin.

Free: 4-1/2 cu. yds of BROKEN CONCRETE. Each piece approx 12" x 8" x 4". DeVox. x2961 or 488-4333.

### Cars & Trucks

'75 Ply Fury S.S. Black, full pwr, am/fm/tape, cruise control, \$2995. Boles x2305 or 471-3709.

'71 Ford LTD 2-dr, PS, PB, auto, \$900. Boles x2305 or 471-3709.

'76 Ford PU, 3/4 ton, 7800 GVW, camper pkg, fully loaded, 460 V-8, 15 mpg, between 4-6. 488-3663.

'77 Plymouth Voyager maxiwagon van, 22000 miles, 318 V-8 (reg gas), PS, PB, a/c, AM/FM, cruise control, \$5000, McLain x5073 or 452-7095.

'74 Mustang II, V-6, a/c, PS, PB, exc cond, must see, best offer, Thibodeau x3533 or 923-2405.

'78 Buick-Regal (turbo) w-T-top, fully loaded, velour interior, 18 mpg town, 24 hiway. Susan x2891 or 485-5744.

'75 Ford LTD wagon, air, power, AM/FM, good cond., \$2000 or best offer. Wayne 457-1859 after 6:30 weekdays, or weekends.



### Try Carpooling

'78 Camaro lt. Save gas, small V-8, all power, auto., exc. mech. cond. best offer over \$5000. Peacock x2208, 486-0154.

'76 Pontiac Ventura, 6 cyl, economical, extras, excel. cond, \$3100 or best offer. Frank Weaver x5837.

'76 Olds Toronado, loaded, new michelins, low milage, immaculate, well maintained, 14 to 16 MPG Hwy. Pearson x5121 or 488-3819.

'76 Buick Regal. Automatic, a/c, stereo/tape, deluxe interior, 40,000 mi. \$2875. 333-3601 after 5.

'70 Mercury Colony park wagon. 488-6095.

### Carpools

Would like one person to join 3-man carpool from Meyerland area, 8-4:30. Sam x5954, Larry x5565, Charles x4442.

Would like to form or join car pool from Dickinson (on Rt 1266) to JSC, 8-4:30 (shift adjustable). Harry X6479 or 337-4063.

Wanted to join carpool from University Green area to Bldg. 37 on rainy days. Chuck Hosler x4086 or 488-2377.

Rider needs transportation from Calhoun (near U of H main campus) 8-4:30 or 8:30-5. Esther x3230 or 748-4229.

Opening for a 4th person to carpool from West University to JSC, 8-4:30 starting in July, Krpec X3284 or Gremillion x 4271.

Need 1 or 2 non-smoking carpool members from Edgebrook & Theta area. 7:30 to 4:00 shift. Gardner x4721, 944-5615 after 5 pm.

Would like 1 or 2 persons to form carpool from Alta Loma, Arcadia area, Hours 7:30 to 4:00. Rowell x4721.

Wanted: Riders to form carpool leaving Edgebrook at Gulf Freeway, 8 to 4:30. Bettie x3097.

### Lost & Found

Found: Key ring with 7 keys and small flexible measure tape in tire-shaped case by Texford batteries. Call ext 4555 to claim.

### Stereos & Cameras

3-way stereo speakers (2), eci trend IV, 45 watts, exc cond, \$75 each. Bill x5437 or 991-0361.

# Center prepared to shut down and evacuate in a hurricane

Hurricane season began this month and runs through November 30. After Carla swept across the Gulf Coast in 1961, JSC set up advance planning and emergency procedures to meet future hurricane threats.

Center Operations has a hurricane plan that calls for shutdown of onsite activities. All employees not part of the rideout crew would be evacuated.

During duty hours hurricane threat information is available on a recorded message at 483-6281, and on the on-site closed circuit television system.

All major JSC organizations have designated Emergency Planning Representatives who will work with the Hurricane Plan Manager and other

emergency preparedness people in setting preparations in motion.

Employees needing assistance

***In a hurricane threat call 483-6281 for information***

and information should contact their representatives or call the Emergency Preparedness Officer at 483-4441. In an actual hurricane threat the local rep will likely be more accessible than the Plan Manager who will be readying the Center for riding out the storm.

Employees who are not members of the rideout crew or assigned a specific hurricane job are expected to evacuate the Center. Guards will check and secure buildings, clearing non-rideout employees from the area.

Before evacuating the Center, unplug nonessential electrical appliances in the work areas—coffeepots, typewriters, clocks. Also, doors should be closed and valuable files moved from outer offices to minimize property damage.

Employees sent home because of hurricane threat are expected to return to work the following workday unless advised otherwise through the news media.

*You know it's going to be a bad day when*

1. You wake up face down on the pavement.
2. You call suicide prevention and they put you on hold.
3. You see a 60 Minutes news team waiting in your office.
4. Your birthday cake collapses from the weight of the candles.
5. You turn on the news and they're displaying emergency routes out of your city.

**The second JSC Blood Drive of 1979 is July 19. See Page 2 Bulletin Board for details.**

## Exploring of solar system continues

### *Dates to red circle*

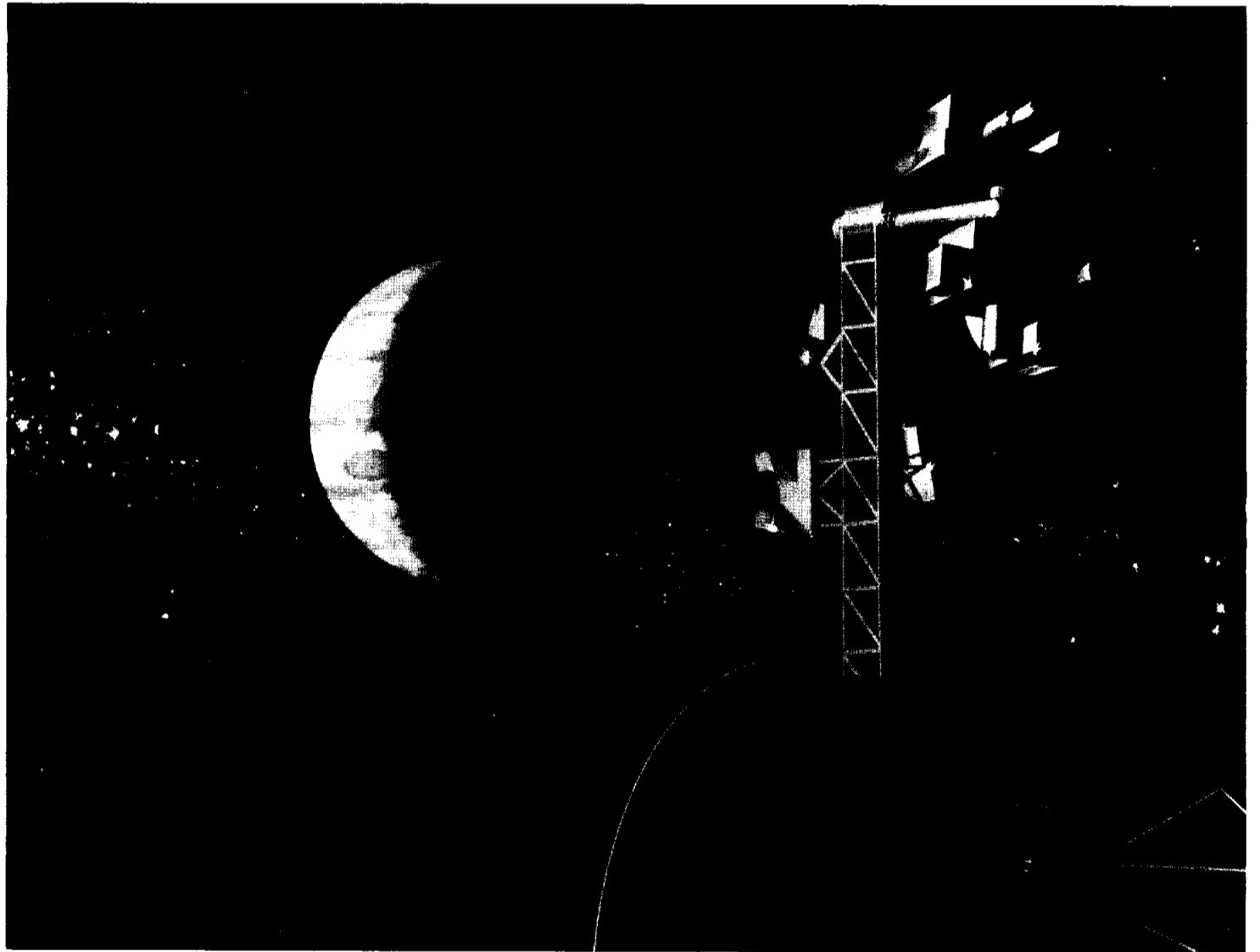
*Voyager 2 passes Jupiter July 9; Pioneer 11 reaches Saturn September 1; Voyager 1 flies by Saturn November 12, 1980; and Voyager 2 encounters Saturn August 27, 1981.*

Plans have changed somewhat for Voyager 2, after its sister ship Voyager 1's successful fly-by Jupiter last spring. Voyager 2 will take closer looks at Ganymede, Callisto, and Europa, flying first through the moons' orbital planes and then by the giant planet.

Because of the discovery of active volcanos on Io, Voyager 2 will execute a time-lapse sequence, flying for 10 hours alongside the erupting moon.

At right is an artist's conception of the Voyager spacecraft aiming its instrument scan platform at Jupiter.

*Charles E. Kohlhase, of the Voyager Project at JPL, will speak onsite July 18 about the mission at noon in Building 2 Auditorium.*



## *Just get knobs, dials, and gauges and go to the Moon*

NASA Space Center  
Houston, Texas

Gentlemen:

We would like to share a project that we just completed in our kindergarten in Argyle, a community in



upper New York State.

One day, one of the children asked a question about the Moon, and before we knew it, we were on our way. We built a spacecraft (the children brought in knobs, dials, gauges—anything that could be used for an instrument panel). Through the use of cardboard boxes, pipe cleaners, and a self-adhesive silver-colored plastic, we soon had a spacecraft large enough to accommodate three kindergarteners.

Our next project was making space helmets of aluminum foil, accompanied by air packs made of boxes, and hoses of folder paper. By then, the parents were really involved and some made space suits for their children.

The climax came on April 3 with 36 launches. We had a table set up on one side of the room for mission control—complete with earphones, dials, and screens to track our craft. Walkie-talkies were used to keep in touch with the astronauts, and sound effects were on a tape recorder.



To simulate Moon landing, the children made a large mural (5 x 8 feet) on one side of the room. Small cardboard craters and Moon rocks were on display in front of the mural. Our astronauts came out of the craft and planted the American flag, picked up a few rocks, and then were on their

way home.

Needless to say, the children had a great time, especially when it was their turn to be astronauts.

Very truly yours,  
Kindergarten - KINDER I  
Argyle Central School District