



ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

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No time for sightseeing on busy third free flight

Pilots Fred Haise and Gordon Fullerton were far busier this time than during the Aug. 12 flight. "During the first flight," Haise told news audiences, "we were concerned with large things like how the flight control system was going to work and if the aerodynamics of the vehicle were close to what we predicted."

This time their timeline was "packed full with data," as Fullerton put it. It seemed to both pilots that the flight only took half as long as the first, and there was no time to take in the view.

The crew was tasked with a planned set of events.

In addition, there were some major differences in this flight from previous ones that might not have been obvious to the external observer. The center of gravity was shifted aft for the third free flight, which is very significant aerodynamically. Haise said the same

maneuvers were performed with the center of gravity changed "so that the aerodynamic people can get a real handle on what the response of the aircraft is and its flight characteristics." Haise said that as far as he was concerned, the vehicle "handled just as well either way, which is what the sim indicated."

Some reporters had apparently decided that with an automatic landing system, sophisticated computers, and ground control, the Orbiter *Enterprise* didn't really require a crew to fly it!

Donald K. Slayton, Manager of the Approach and Landing Test Program, assured everyone at the postflight press conference Sept. 23 that it did.

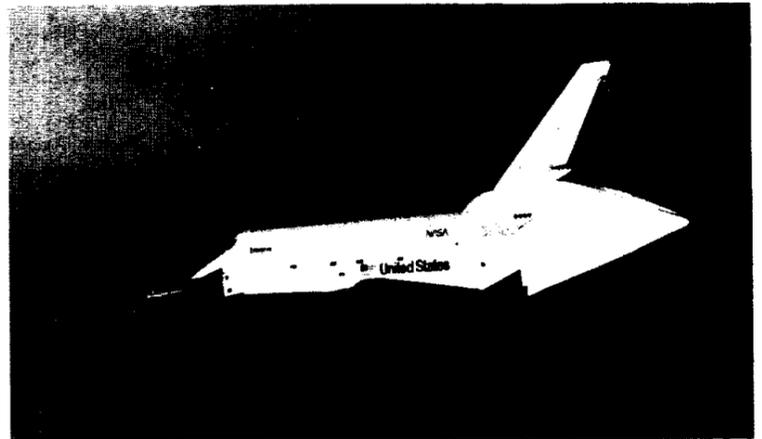
Haise and Fullerton tried out the electronic (microwave) landing system installed on primary lakebed runway 17, the runway used in the first free flight, and agreed they were able to couple the autoland

system and their own final approach nicely. But autoland accounted only for about 45 seconds of flight time, and the crew pointed out that an automatic landing would not always be desirable or appropriate.

When would it be preferable to use the autoland system, and when would the pilots be better off doing the job manually?

Haise answered by saying that autoland would be an aid during typical instrument landing conditions, such as low ceilings. But he also noted that autoland does not have the flexibility to know whether there is, for example, a downwind or upwind — a human being had to adjust for these contingencies.

Another bad time to use autoland might be system failure, de-



LANDING APPROACH — Shuttle Orbiter makes its landing approach during third free flight.

pending on the system that failed. "If we lost an accelerometer, for example," stated Haise, "we wouldn't want to engage autoland."

The pilots also wanted to test the ability to control the direction of the vehicle once it was on the ground rolling. They planned a maneuver over to one side of the runway after touchdown, which went smoothly. The pilots expressed confidence in adequate vehicle control during a rollout on a concrete runway, which is considerably less

"luxurious," said Fullerton, than the dry lakebed.

Fitz Fulton, pilot of the 747, felt confident they could stand more turbulence.

Haise commended ground personnel for the quick turnaround time it took to "get the vehicle back in shape" for flight in just 10 days. He was also pleased they were able to make takeoff time despite preflight communication problems with the 747 which, fortunately, ceased in flight.



A BIG CATCH — The gentleman casually fishing at Clear Lake pauses to watch the transport of the first stage Saturn V as it approaches its destination.

First stage Saturn V gets by (barely) with a lot of help from its friends

The first stage Saturn V is now safely in place behind Building 14, but not without a considerable amount of brainstorming and midnight oil!

The actual trek across NASA Road 1 took place about 1:30 in the morning Wednesday, Sept. 21. The road had to be closed off, transport generators failed or were sporadic, and a tree got in the way of an important turn onto the highway.

The prime mover was an old tank retriever that required considerable prodding from time to time. Because of the length of the transport, men wearing headsets were stationed at the front and at the rear for communication purposes, and flood lights surrounded the entire area.

The offending tree at a turning point onto the highway was saved

by the quick thinking of personnel on the scene. Because of the angle at which the transport would have had to be turned the tree would have broken, and the incident wouldn't have done the S-IC any good either.

So a cable was rigged to act as a fork lift; the tree was bent for a short length of time, and by 9:30 Wednesday morning, the S-IC was secured in its new home.

Lunney resumes former JSC post

Glynn S. Lunney has resumed his duties as Manager of the Shuttle Payload Integration and Development Program Office. He has returned to JSC upon completion of a temporary assignment at NASA Headquarters as Deputy Associate Administrator for Space Flight.

Before assuming his present title originally in 1975, Lunney was Manager of the Apollo Spacecraft Program. In June of 1974, he was Technical Director of the Apollo-Soyuz Test Project.



Glynn S. Lunney

Lunney has a long career in the space program beginning in 1958 at the Lewis Research Center, where he was an aerospace research engineer.

He became part of the NASA Space Task Group at the Langley Research Center in 1959, and in 1962 joined JSC as head of the Mission Logic and Computer Hardware Center.

From there, Lunney worked on to become Chief of the Flight Dynamics Branch in 1964 and Chief of the Flight Directors Office in 1968. In 1972, he became special assistant to the Manager of the Apollo Spacecraft Program.

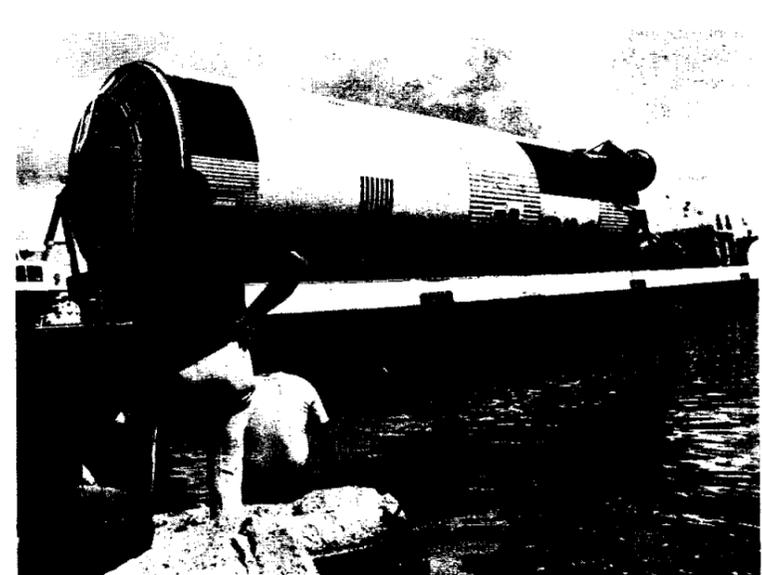
Lunney's current responsibility is to direct the planning and implementation of JSC payload and payload carrier activities. This includes managing the Space Shuttle Program payloads interface activities; managing the development of JSC

payloads and mission kits; and managing the JSC integration and operations activities for all payloads and payload carriers, including those developed by other organizations.

Clifford E. Charlesworth, who has served as acting Manager of the Program Office in Lunney's absence, will assume the duties of Deputy Manager of the office.

Prior to his assignment in the Program Office, Charlesworth served as Manager of the Earth Resources Program Office and as Deputy Manager of the Skylab Program.

Harold E. Gartrell has been named to fill the new position of Assistant Manager of the Program Office. In the past, he has served JSC as Manager of the Vehicle Project Office in the Space Shuttle Program and as Manager of the Future Missions Project Office.



IT ALWAYS LOOKS BIGGER IN REAL LIFE! — Despite threatening clouds and some lightning, newsmen, JSC employees, and visitors turned out to get a good look at the nearly half-million-pound S-IC with transporter.

Voyagers are both on course

Voyagers 1 and 2 are on course and performing well, according to spokesmen at the NASA Jet Propulsion Laboratory.

Voyager 1, the faster of the two

spacecraft, is presently 13,660,000 miles from Earth, 449,420,000 miles from Jupiter and is travelling at a speed of 22,065 miles per hour relative to Earth.

**MINUTEMAN
AWARD
WINNERS**



Boykin



Bragg



Drexel



Hendrix



Lofland



McLaughlan



Norman



Shumilak



Wilde

**OUTSTANDING
PERFORMANCE
RATING
AWARD**



Stephenson

COST-REDUCTION AWARD WINNERS — Minuteman Awards were initiated for the Bicentennial and are now the standard award given those who achieve the highest ratings in the area of cost-reduction, which generally amounts to savings in the million-dollar range. Pictured are Pat B. McLaughlan for Shuttle escape suit ventilation, Michael K. Hendrix for recovery of defective Orbiter Multiplexer/Demultiplexer hybrid microcircuits, M. L. Wilde for unique reuse of equipment excess to other NASA centers, Jack C. Boykin for deletion of test hardware and associated tasks on

the Shuttle Avionics Integration Laboratory Orbital Flight Test Baseline, B. J. Bragg for battery provisioning to ongoing programs through use of past-mission surplus batteries, L. C. Norman and W. W. Lofland for the Orbiter Crew Escape System, Ralph E. Drexel for the operational Orbiter seat contract change, and Edward E. Shumilak for the 1108 EXEC 8 common boot tape configuration. In addition, Harold Stephenson of the Institutional Data Systems Division, was presented an Outstanding Performance rating at the ceremony.

JSC employees are cost-conscious

More than 50 people received cost-reduction awards at JSC in a ceremony held this month. Henry (Pete) Clements presented the awards on behalf of Center Director Christopher C. Kraft, who was away on travel. William R. (Bill) Kelly read the names and citations. At least a thousand dollars through their efforts, and the highest awards, the Minuteman Awards, were presented to those whose efforts saved millions of dollars.

The list of award recipients and their money-saving ideas and contributions is too lengthy to be adequately described here. However, this fact alone speaks well for the cost-consciousness of JSC employees. All individuals awarded certificates saved the space program at

Reports of cost reduction constitute one measure of efficiency in operations and are regarded as a profile of excellence. Incidents of cost-avoidance and reduction as well as positive changes and improvements are reported and announced. Failure to record such cost-conscious efforts could conceivably jeopardize an entire operation.

American biological space experiments are successful

Seven American biological experiments have been successfully orbited and returned to Earth aboard the Russian Cosmos 936 Satellite. The Soviet biology satellite was launched Aug. 3 from Plesetsk base in the U.S.S.R. and returned its biology payload to Earth in Siberia by parachute Aug. 22. Cosmos 936 also carried biology experiments from France, Czechoslovakia, Poland, Romania, Bulgaria, Hungary, and East Germany.

The findings from the mission will be applied to the problems of health, safety, and effective performance of man in space.

The U.S. experimenters did transport biological material back to the U.S. for further study arriving on Sept. 2.

American scientists participating in the Cosmos 936 mission are:

Drs. Jaime Miquel and D. E. Philpott, Ames Research Center (ARC), (Effects of Weightlessness on the Genetics and Aging Process of Fruit Flies)

Drs. H. A. Leon, ARC and S. A. Landan, V. A. Hospital, Syracuse, N. Y. (Effects of Weightlessness on Random Hemolysis and Lifespan of Red Blood Cells of Rats)

Drs. Samuel Abraham and Chui Lin of Childrens Hospital Medical Center, Oakland, Calif.

Dr. H. P. Klein and C. M. Volkman,

ARC (Analysis of Liver Tissue for Enzymes Involved in the Conversion of Carbohydrates to Lipids)

Drs. E. M. Holton, ARC and D. J. Baylink of the V. A. Hospital, Seattle, Wash. (Quantitative Analysis of Selected Bone Parameters)

Drs. E. V. Benton, R. P. Henke, D. D. Peterson, Allan Frank, and Ronald Cassou of the University of San Francisco, Calif. (Radiation Dosimetry Experiment)

Drs. D. E. Philpott and Gladys Harrison, ARC (Histologic and Ultrastructural Examination of Eye Tissue)

Drs. J. P. Van Der Meulen, L. A. Chui, and Joan Higgins of the U.S.C. Medical Center, and K. R. Castleman of the Jet Propulsion Laboratory (Muscle Fiber Analysis of Cosmos Rats).

The U.S. scientists, Kenneth Souza of Ames and Dr. Eugene Benton of the University of San Francisco arrived in San Francisco from Moscow Sept. 2 with the specimens. The samples, including bone, muscle and liver tissue from rats and live drosophila (fruit flies) had been processed and packaged in dry ice at a mobile laboratory located at the landing site in Siberia and shipped to Moscow within 36 hours after spacecraft recovery.

Souza and Benton were in Moscow to receive the samples, supervise proper packaging and carry them back to the United States.



WELCOME BACK — Astronauts Joe Engle and Richard Truly are congratulated by Center Director Christopher C. Kraft on a great second free flight. Engle and Truly presented a slide show of the flight for visitors and JSC employees in the Building 2 auditorium Sept. 15.

Get ready for "getdown"

The walls of the Gilruth Recreation Center will be rocking with the soulful sounds of the "Down-to-Earth Denominations" when the first JSC "Soul Getdown" takes place Oct. 15.

Included in this exciting evening of dancing and live entertainment will be beverages and a barbecue dinner to be served from 8:00-9:00 p.m.

The Denominations will play popular soul hits by top entertainers such as Marvin Gaye, the Commodores, the Emotions and others from 9:00 p.m. to 1:00 a.m.

You can enjoy this gala affair for only \$8 (includes dinner and beverages). There are only 500 tickets available and sales end Oct. 7; so, get yours today at the Building 11 JSC Exchange store!

NCMA plans symposium

The National Contracts Management Association (NCMA), Houston Chapter, will hold its symposium for 1977 on Thursday, Nov. 10 preceded on the evening of Wednesday, Nov. 9 with a banquet and a featured speaker.

The day-long symposium will be a memorable event with prominent speakers presenting their view points on the theme, "Congressional Impact on Procurement."

The symposium will be open to members and nonmembers.

A more detailed announcement will be released in mid-October.



SCHOLARSHIP CHECK PRESENTED — Julius T. Mayhorn, Jr., aerospace mathematician at JSC and Chairman of this year's Juneteenth presentation, awards first Juneteenth scholarship check for \$500 to Sidney E. Lacey, straight-"A" graduate of Stephen F. Austin High School, in a special ceremony held recently in the executive dining room of the Building 3 cafeteria.

Building 30 gets solar panels

You may have noticed some activity last week on the rooftop of Building 30.

That's not surprising since construction teams are in the process of installing solar panels there.

The project is part of an Energy Research and Development Administration (ERDA) effort, but Building 30 was specifically selected because it will receive the most benefit.

Solar energy, in this case, is not being used for space heating and cooling or to provide an electrical power supply. Rather, its purpose is being directed toward reducing the humidity factor in the building's computer facilities by enhancing the hot water supply. High humidity, especially coupled by higher temperatures, causes malfunction

of computer equipment and short circuits.

Of course, lower humidity also means additional comfort for people in the area, but, unfortunately, computers are less adaptable than people.

Because of the special emphasis of this project, interfaces with existing systems have been relatively simple and no revamping is expected.

No solar tracking devices or storage systems are required for the project either.

Target date for completion is set for mid-November, and it is hoped the system will be fully operational at that time. Soon, employees and tourists will be able to see one of the panels when it is displayed on the ground floor of the building.



SOLAR PANELS INSTALLED — Solar panels are manufactured by the Southwestern Sheet Metal Co. in El Paso, and Charles G. Heyne has the construction contract for the project. Cost is estimated at about \$300,000.

Cafeteria Menu

WEEK OF OCT. 3 - 7

MONDAY: French Onion Soup; Weiners & Macaroni; Round Steak w/hash browns; Meatballs & Spaghetti (Special); Okra & Tomatoes, Carrots. Selection of Salads, Sandwiches, & Pies Daily.

TUESDAY: Beef & Barley Soup; Shrimp Creole; Ground Pork Steak; Beef Stew; Fried Chicken (Special); Mixed Vegetables, Stewed Tomatoes, Buttered Rice.

WEDNESDAY: Seafood Gumbo; Fried Perch; New England Dinner; BBQ Plate; 8 oz T-Bone Steak; Shrimp Salad; Swiss Style Steak (Special); Italian Green Beans, Beets, Lima Beans.

THURSDAY: Cream of Chicken Soup; Turkey & Dressing; Enchiladas w/chilli; Weiners & Beans; Stuffed Bell Pepper (Special); Zucchini, Squash, Peas.

FRIDAY: Seafood Gumbo; Broiled Flounder; 1/4 Chicken w/peach half; Shrimp Salad; Salisbury Steak (Special);

Shrimp & French Fries; Mixed Vegetables, Cabbage, Breaded Okra.

WEEK OF OCT. 10 - 14

MONDAY: Closed — Columbus Day

TUESDAY: Tomato Soup; Baked Chicken; BBQ Spare Ribs; Mexican Dinner (Special); Broccoli, Spanish Rice, Ranch Beans.

WEDNESDAY: Seafood Gumbo; Red Fish; Liver w/onions; BBQ Ham Steak; Shrimp Salad; Meatloaf (Special); BBQ Plate; Brussel Sprouts, Green Beans, Whipped Potatoes.

THURSDAY: Beef & Barley Soup; Chicken & Dumplings; Corned Beef w/cabbage; Smothered Steak (Special); Cauliflower, Cabbage, Parsley Potato.

FRIDAY: Seafood Gumbo; Pork Chop; Creole Baked Cod; Ham Steak; Seafood Platter; Salmon & Tuna Croquette (Special); Corn, Green Beans, Beets, Shrimp Salad.

EAA ATTRACTIONS

TICKETS

The following tickets are available at the Bldg. 11 Exchange Store from 10 a.m. - 2 p.m. Monday - Friday.

Astroworld - Adult & children tickets available for \$5.95 each. That's a \$2 discount.

Dean Goss Dinner Theater - Mark Oct. 30 on your calendar to attend NASA Night at Dean Goss Dinner Theatre. The play is entitled "Right Bed, Wrong Husband." Tickets will go on sale October 5 at \$6.00 per person.

Disney Magic Kingdom Club - Free membership cards.

Sea-Arama Marineworld - Tick-

ets on sale, \$3.75 for adults, \$2.50 for children. Open until dusk, year round.

Six Flags - Adult & children tickets \$6.75 each. That's a \$1.20 discount.

STOP SMOKING COURSE

A stop-smoking course is scheduled for Nov. 7-11. The exact charge for the course has not yet been determined.

However, due to the volume of the telephone calls on the subject, interested parties are urged to dial X-2301.

A recorder will take your name and extension, and someone will call you as soon as possible. Those

who have participated in the course before and have started smoking again may retake the course at no charge.

NAUTILUS DISCOUNTS

NASA employees and associate contractor personnel are reminded that Oct. 1 is the deadline to take advantage of Nautilus Discount Center special rates. Individual, husband-wife, and family memberships are available. For more information, contact Tom Gold or Drew Weiss at the Clear Lake facility, 333-4848, or Ray Waldvogel at the Hyatt Regency facility, 641-1520. Don't delay; join today! Your membership entitles you to use any of the nine Nautilus locations.



FEDERAL EMPLOYEES OF THE YEAR - In an annual awards luncheon sponsored Sept. 15 by the Houston Federal Executive Board and the Federal Business Association, two JSC employees were honored as Federal employees of the year. Award winners (left to right) are: James B. Tabor (FAA), Riley D. McCafferty (JSC), Cheryl M. Broaddus (FAA), and William W. Willey (FBI). William Kelly accepted the award for Donald K. Slayton (JSC) who could not be present.

Try out for Skeet League

A new 10-week fall JSC Skeet League is now being formed and will begin Oct. 6. This is a handicap league, so no extensive shooting experience is required. Interested persons should call the Clear Creek Gun Range at 337-1722 to join.

Shown in the photograph are members of the winning team in the JSC Summer Skeet League held at the gun range in League City. The team battled its way to the top

of the eight-team field in the closing weeks of the summer schedule.

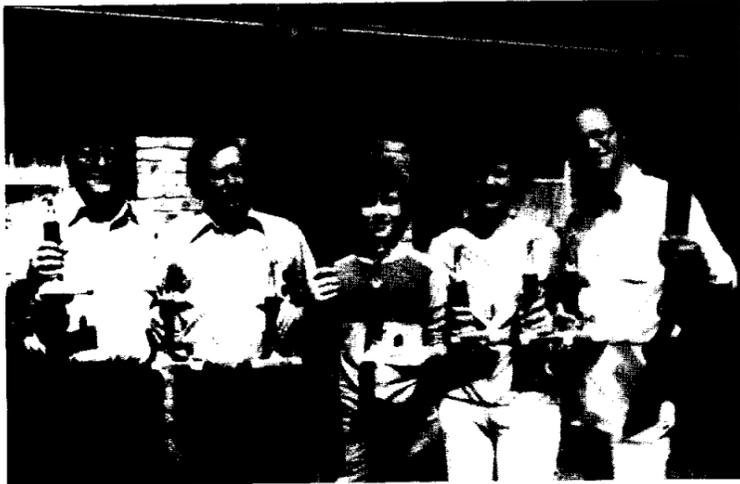
Members of the second-place team were Joe Fries, Captain; Warren Brasher and son Kenneth; Jan Homerstad; and Hank Flag.

The Skeet League is composed of JSC personnel and contractors. For additional information, call Bill Chandler, X-4027, or Joe Fries, X-5495.

Missing "Roundup"s?

Be sure that a new form 2271 is submitted whenever personnel are added to or moved from a department or whenever an office moves or is absorbed into another. This is the only way the distribution department can ensure adequate numbers of Roundup's and other mail will be circulated to all JSC areas.

Retirees should contact Marilyn Dotson at X-2135 if they wish to receive Roundup's on a regular basis. They must renotify Ms. Dotson when they move or if they do not wish to continue receiving Roundup's.



SKEET LEAGUE WINNERS - Shown left to right are: G. C. Ballou, Team captain; Gary Harwell, winner of the "High Gun" trophy; John Simon; Elaine Simon, winner of the "Most Improved" trophy; and Bill Simon.

Get special Shrine Circus rates

Discount tickets for the Shrine Circus are available at the JSC Exchange Store in Building 11. The reduced tickets are for Oct. 10 and 11. The tickets that regularly sell for \$6.50 are \$4.50, and \$5.50

tickets are now \$3.50. This is a \$2.00 savings on each ticket.

Tickets for all other Circus performances are also available at the regular price.

Roundup Swap Shop

CARS & TRUCKS

70 Javelin. Wrecked but running. All for \$350 or will consider selling parts. 473-7745.

77 Corvette. All factory extras, 6 mths old, less than 2000 miles, perfect cond. Pyke, X-2794 or 488-3158 after 5.

73 Pontiac Grand Prix. 2-dr HT, all pwr, fully loaded, bkt seats. \$2,295. Jim, 481-3648.

66 Ford Mustang. 6-cyl, radio, heater, new WW tires, good cond, all original equipment. \$595. Jim, 481-3648.

70 Chevy Monte Carlo. Blk vinyl roof/gold special instr package, A/C, pwr steer & brakes. \$1,150. Perry, X-7447 or 554-2086.

68 Chevy 1/2-ton pickup. \$550. 641-0758.

76 Cadillac Seville. Silver, xint cond, loaded, 27K miles. \$8,600. 486-1722 after 5:30 p.m.

77 Olds Cutlass Supreme. 2-dr, 14K miles, xint cond. \$5,300. 486-0865 evenings.

71 Impala. 4-dr sedan, wife's car, A/C, pwr steer & brakes, 5 steel belted radials, xint cond. 991-4699.

70 Hornet. 2-dr, 4 good WW tires, radio, nothing else. \$500. Great work car. 991-4699.

72 Buick LeSabre. 4-dr, A/C, new auto trans, good tires, xint cond. \$1,200. 946-6837 after 5 p.m.

73 Mustang. Big tires, auto, A/C, pwr, nice. \$2,100. X-4711 or 554-6242.

72 Pontiac Luxury LeMans. 2-dr HT, 350 V8, pwr steer & windows, bkt seats, console, new radials, A/C, under blue book. 488-1028.

76 Skylark. 4-dr, A/C, AM-FM, pwr, xint cond. \$3,600. X-4788 or 474-2147.

74 Cadillac Calais CPE. AM-FM stereo tape, all pwr, A/C, radial WW tires, white, cruise, xint cond. \$4,200. 333-2395.

68 Olds Delta 88. 4-dr, one owner, 83K miles, good transportation car. \$450. 941-0489 after 6 p.m.

73 Triumph Stag. HT & soft top, AM-FM, A/C, xint cond. Kaltenbach, X-2666 or 331-5751.

74 AMC Sportabout. A/C, pwr steer, radials, luggage rack, 22K miles. \$2,350. Kirby, X-2666 or 488-1301.

72 MGB. A/C, AM-FM, 36K miles, xint cond, Tonneau. \$2500. 474-2147 after 4 p.m.

73 Chevy Caprice Classic. xint cond, 22,400 miles. \$100 under blue book. Munro, 333-6245 or 333-3493 after 6 p.m.

77 Charger (White Knight). A/C, T

Swap Shop advertising is open to JSC* federal and on-site contractor employees. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin. Non-commercial personal ads should be 20 words or less, and include home telephone number. Typed or scribbled ad copy must be received by AP3/Roundup by Wednesday of the week prior to publication.

top, AM-FM stereo 8-track tape, 4 mths old, auto, 7K miles, xint cond, pwr steer & brakes. Turner, X-4694 or 337-4600.

74 T-Bird. Blue/white vinyl top, new tires, 41K miles, xint cond. \$3,800. Berry, X-4021 or 334-2303.

69 Pontiac, 4-dr, runs well, needs body work. \$395. 471-4419.

74 260-Z. A/C, mags, 24 mpg, very clean, xint cond. X-2768 or 643-8944 after 5 p.m.

Mark III Continental. Beautiful classic, clean, like new, low mileage, xint cond. \$1,995. X-2768 or 643-8944 after 5 p.m.

65 Dynamic 88 Olds. \$195. 334-2129 after 5 p.m.

75 Honda 750 S.S. Xint cond, low mileage, xtras. \$1,750. Scott, 554-6305.

PROPERTY & RENTALS

Land for sale. Patio lot at Seven Coves on Lake Conroe. Investment buy, low equity. Parker, X-4241 or 481-4372 after 5:30 p.m.

Seashore cottage. Surf at your doorstep. Xint Gulf fishing. \$25/day, \$150/wk. 334-2360.

Why rent? Cottage lots near schools, bay (LaPorte). Very reasonable. 334-2360.

Bachelor? Furnished trailers near JSC. Swimming pool, low rates 334-2360.

Mobile Home Owner? Lots near JSC, on bay, swimming pool. \$45 up. 334-2360.

Wooded waterfront lot at Point Lookout on Lake Livingston, 75 x 137, utilities, restrictions. \$3,500. 946-7587.

Montgomery County wooded 1, 2, or 3 acres on spring fed Peach Creek and Hwy 1485. Commercial potential. Klotz, 488-1514.

75 mini motorhome. 22', xint cond, loaded, 29K miles. Take up payments, financed JSC Credit Union. 488-3170 or 488-3377 after 5 p.m.

For rent: Lake Livingston, Cape Royale, compl, furn home, 3-2-1. Fishing, hunting, tennis, golf, etc. Wk/mo/yr rates. Reserve early. 488-4487.

Vacation retreat for rent at Cape Royale on Lake Livingston. Tennis, pool, boat launch, golf. 488-3746.

For rent: New Galveston Island Jamaica Beach cottage. Available by wk

(\$175) or for weekends (\$30/day). 334-1640 after 6 p.m.

STEREOS & CAMERAS

Minolta lens. Rokkor-X, 300 mm telephoto f. 4.5. Xint cond, 1 yr old. Chuck, 784-9942 after 6 p.m.

Fisher X-101-C stereo amp, wal case, xint cond. A classic. \$50. Misc. prerecorded open reel tapes, all xint cond. Priced individually. 488-3966.

35 mm Leica w/ 50 mm Summarit lens. \$500 or best offer. 334-2360.

75 Magnavox TV-stereo theater. 25" screen, solid state, remote cont, 6 speakers, Medit. cabinet, xint cond. \$550. Kreske, 471-2769.

HOUSEHOLD ARTICLES

Two solid oak twin beds (frames & headboards, no mattress). \$20 each. 482-6027.

Mars 60,000 BTU Central heat unit. \$125. 944-1280 after 6 p.m.

Large oak desk, \$350. Coffee table, \$25. Long couch, needs recovering, \$50. Spanish Captain's chairs, \$40. Planche, X-6491 or 474-2660.

Large Spanish wrought iron chandelier from Mexico. 8 amber globes, beautiful for large room. \$145. Planche, X-6491 or 474-2660.

GE Potscrubber dishwasher. Gold w/ butcher-block top, 8 mths old. \$250. Moving, must sell. 477-9546 after 5 p.m.

BOATS & PLANES

Ski and fishing rig. Wellcraft 165 boat, big wheel tilt trailer, 85 HP Mercury, many extras. \$3,450. Croom, 944-5624.

77 Bayliner - 1950 Quartermaster. Deep V-hull, 140 HP Volvo-Penta I/O w/ closed fresh water cooling. Full canvas and custom trim and teak. Trailered on E-Z loader, all roller drive-on. Noakes, X-7484 or 482-3546.

WANTED

Need riders for carpool from W Loop, SW fwy, Bellair area. 8-4:30. McLaughlin, X-5536 or 661-2974.

Firefighters needed! Men & women adult residents of CLC to join CLC

volunteer Fire Dept. Rewarding community service. You will be trained and equipped. Call 488-0023 any time.

CYCLES

73 Honda 450. Wixom fairing, clean as new. \$690. E. Tiedt, 334-2294.

3-wheel adult bicycle. Large rear basket. 334-3044.

Boy's bicycle. Huffy 5-speed, good cond. \$25. 482-7674.

PETS

Free to good home: Small, female poodle-mix puppy. Can't locate owner; can't keep. 482-6027.

Beautiful AKC Reg. toy poodle pup. Chocolate or black. Great blood line. \$150. Dobson, 482-4600.

Young fawn male boxer. Show quality. Bailey, 337-2855.

LOST & FOUND

Metal-framed eyeglasses lost in parking lot by Bldg. 35 or on back road out to CLC. Williams. X-6226.

MUSICAL INSTRUMENTS

Professional drum set. 5-piece Gretsch, xint cond. \$495. David, 681-5369, 12-6 p.m.

Le Blanc wood clarinet. School approved. \$125. Lattier, 488-1366.

MISCELLANEOUS

Locking gas cap for 72 Ford Ltd. \$1.50 or best offer. Bartosh, 333-3690.

Misc. used Yamaha 250 motorcycle parts, tires. 334-3044.

New Fedders. 5000BTU Room Air conditioner. \$140. 944-1280 after 6 p.m.

Versamec 700 w/ auto primer feed. 12 + 20 ga dies & other extras. Also RCBS Jr Press. \$80. 488-5495. Child's large Wonder Horse. 48" high; foos-ball game (l. 50", w. 24", h. 36"); portable table organ. 334-3044.

Fresh locally produced honey. \$2.50/qt., \$9/gal. Ward, X-4976 or 943-1945.

National GEO (10 yrs), American Peoples Encyclopedias (1953-1970). Make offer. Jig Saw, \$40. LENC! doll, \$150. 333-5510.

Set Arnold Palmer golf clubs. Good cond, \$60. House, 482-7016 after 6 p.m. 2 1/4-ton Fedders central A/C condenser and coil. 6 yrs old. \$200. Lisenbee, 487-0360 after 5 p.m.

Guns: 45 automatic, like new, \$200. French Chesspot and bayonet, \$150. 12-gage double, \$100. Robbie, X-4637 or 333-5510.

Reamer and headspace gages for 30-06, \$20 or trade on scope. Anderson, X-7204 or 485-3025.

Two Ranger sleeping bags, polyester, to 20°. Used 3 times. \$25 each. Whitcomb, X-3491 or 944-6457.

Chevy 1/2-ton van wheels. \$125. 944-1280 after 6 p.m.

2 Big Vic 14" Mag Wheels. Less than 10 miles. \$160 for both. 473-7745.

Man's golf clubs. Starter set, bag & cart. \$50. 482-7643.

Puma camper trailer. Sleeps 6, propane 3-brnr stove, water system, hookups, good cond. \$850. White, 332-5177.

Offshore fishing. 23' Chrysler trailer, Center console, 120 HP engine. \$3,800 or best offer. 334-2360.

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

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Coushatta Indians find many opportunities at JSC

"How did they get this up there?" asked Chief Fulton Battise incredulously as he examined the full-sized model of the lunar roving vehicle. "Surely they didn't take it up there like this!"

About 100 members of the Alabama-Coushatta Indian tribe were guests of JSC Wednesday, Sept. 14, for a tour of the facilities. Two chartered buses arrived at Building 30, where members of the New Trails Club — an organization of JSC employees who represent various American Indian heritages — greeted them.

Vance Brand of the Astronaut Office, Center Director Christopher C. Kraft, and Bob Navarette of the New Trails Club welcomed the group and spoke about the United States space program and, in particular, the Space Shuttle.

While Joe Doke was busy explaining the method of carrying and assembling the lunar roving vehicle, Raymond Poncho, Treasurer and Director of Public Affairs for the tribe, was absorbed with the moon-rock exhibit. One of the younger tribe members, Morris Bullock, who makes pottery for the tribe, kept asking how certain artifacts were crafted in terms of painting, casting, preserving, and so forth.



PERSONAL WELCOME EXTENDED — A personal welcome to JSC was extended by Center Director Christopher C. Kraft to the tribal Chief, the sub-Chief, and tribal representatives. Pictured left to right are: Joe Doke, Chief of New Trails Club; sub-Chief Emmett Battise; Chief Fulton Battise; Christopher C. Kraft, Center Director; Raymond Poncho, Treasurer and tribe Director of Public Affairs; and Cecil Gibson, JSC.

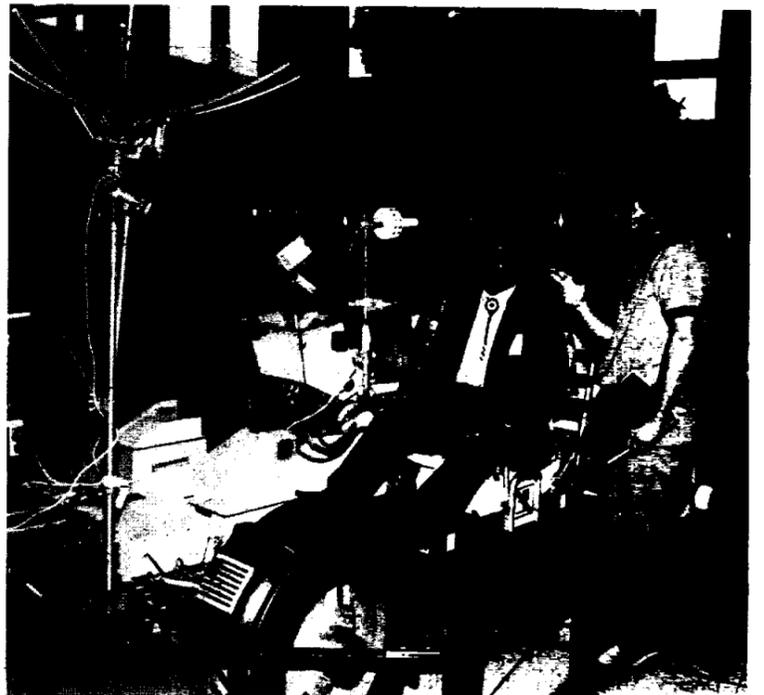
The main thrust of the program was to alert tribe members to the many educational opportunities at JSC. Stan Goldstein and Clarence Williams addressed the young people about job opportunities and application procedures.

The home of the Alabama and Coushatta tribes is located on 4,600 acres of beautiful, unspoiled timberland 90 miles north of Houston

and 17 miles east of Livingston on U.S. Highway 190.

Both tribes are members of the Creek Confederacy of Indians and are of Muskogean stock. They came from Alabama and were closely related before they came to Texas around 1795.

Today, about 500 Indians from the two tribes live on the reservation, although many commute to jobs in Houston and nearby areas.



EXPLAINING HOW IT WORKS — Joe Doke (standing) explains to Chief Fulton Battise how the lunar roving vehicle was assembled on the Moon.

"Gallon" blood donors get pins

R. D. Chandler, Jr., Lockheed Electronics Company, Inc. Systems and Services Division General Manager, recently awarded Gallon Club pins to seven Lockheed employees who donated their eighth unit of blood (one gallon) during the successful August blood drive, which netted 161 units of blood. Lockheed has 38 Gallon Club members under the JSC Blood Bank program since its inception in Jan. 1974.

Lockheed also has three employees with 12 units to their credit working on a Two-Gallon award.

Receiving Gallon Club pins from Chandler were: Roy Brown, Daniel Dodson, Bill Jancha, Lee Pepping, Richard Pringle, Clarence Shultz, and Frank Tragni. Their names have been added to the Gallon Club plaques displayed in the foyer of Building L-IX, 1812 Space Park Drive.

Hispanic program emphasizes Spanish-American contributions to our nation's space effort

"Viva NASA!" set the tone for the Hispanic Heritage Program Friday, Sept. 16 in the Building 2 auditorium.

The dances were colorful and very professional, as always, and blended the traditional with a subtle interweaving of modern trends in the art.

Among the notable speakers at the event were Elma Berrera of

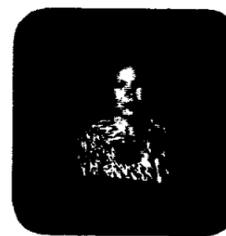
Channel 13; Hermilo R. Gloria, Director of Internal Programs from NASA Headquarters, and Arturo Rosales, Professor of History at the University of Houston. Jose R. Perez of the JSC Equal Opportunity Office introduced the program, and Center Director Christopher C. Kraft welcomed guests and visitors.

The many contributions of Spanish Americans to the aerospace

industry and to NASA were emphasized by the speakers and in a pamphlet written for NASA by Domingo Nick Reyes. JSC has been served brilliantly by such individuals as Arturo B. Campos, Section Head of Power Distribution; Elena Melgares, aerospace engineer; L. J. Villarreal, Technical Resources Management; and Efen Calvillo, Section Chief Computer Systems.



ROSALLES



BERRERA



GLORIA

More astronaut (pilot) applicants arrive at JSC for interviews

The fourth group of Space Shuttle astronaut applicants reported to JSC Monday, Sept. 19 for a week of physical examinations and individual interviews. All are pilots in this group, 19 military and one civilian.

Services represented are the U.S. Air Force (12), the U.S. Navy (4), and the U.S. Marine Corps (3).

The name, age, military rank, place of birth (BP), and current duty station (DS) of each of the pilots in this fourth group are:

Frederick H. Hauck, 36, Cmdr. USN; BP — Long Beach, Calif.; DS — Naval Air Station, Whidbey Island, Wash.

Ralph J. Luczak, 31, Capt. USAF; BP — St. Louis, Mo.; DS — USAF 4950th Test Wing, Wright Patterson AFB, Ohio.

Donald L. Marx, 35, Maj. USAF; BP — Gary, Ind.; DS — Air Command and Staff College, Maxwell AFB, Ala.

Edward D. Mendenhall, 41, civilian; BP — Orange, N.J.; DS — NASA Johnson Space Center, Aircraft Operations, Houston, Tex.

Edward T. Meschko, 33, Maj. USAF; BP — Trenton, N. J.; DS — USAF Flight Test Center, Edwards AFB, Calif.

Alfred P. Metz, 31, Capt. USAF; BP — Springfield, Ohio; DS — USAF Flight Test Center, Edwards AFB, Calif.

David W. Milam, 37, Maj. USAF; BP — Tucson, Ariz.; DS — USAF Test Pilot School, Edwards AFB, Calif.

Stephen J. Monagan, 33, Capt. USAF; BP — Waterbury, Conn.; DS — 3246th Test Wing, Eglin AFB, Fla.

Roger A. Moseley, 31, Maj. USAF; BP — St. George, Utah; DS — 3246th Test Wing, Eglin AFB, Fla.

Steven R. Nagel, 30, Capt. USAF; BP — Canton, Ill.; DS — USAF Flight Test Center, Edwards AFB, Calif.

Bryan D. O'Conner, 31, Capt. USMC; BP — Orange, Calif.; DS — Naval Air Test Center, Patuxent River, Md.

Larry G. Pearson, 34, Lt. Cmdr. USN;

BP — Redlands, Calif.; DS — Pacific Missile Test Center, Pt. Mugu, Calif.

Alva E. Peet, Jr., 38, Maj. USMC; BP — Jacksonville, Fla.; DS — Naval Air Station, Pt. Mugu, Calif.

Gary L. Post, 37, Maj. USMC; BP — Trilla, Ill.; DS — Naval War College, Newport, R.I.

Kenneth N. Rauch, 33, Lt. Cmdr. USN; BP — Syracuse, N.Y.; DS — Student, Canadian Forces College, Toronto, Ontario, Canada.

Richard N. Richards, 31, Lt. USN; BP — Key West, Fla.; DS — Naval Air Test Center, Patuxent River, Md.

Francis R. Scobee, 38, Maj. USAF; BP — Cle Elum, Wash.; DS — USAF Flight Test Center, Edwards AFB, Calif. Brewster H. Shaw, Jr., 32, Capt. USAF; BP — Cass City, Mich.; DS — USAF Test Pilot School, Edwards AFB, Calif.

Loren J. Schriver, 32, Capt. USAF; BP — Jefferson, Iowa; DS — USAF Flight Test Center, Edwards AFB, Calif.

Ivan J. Singleton, 38, Maj. USAF; BP — Tulsa, Okla.; DS — USAF Flight Test Center, Edwards AFB, Calif.



RIGHT IN STEP — Dancers combined traditional with contemporary styles.

Spaceland Toastmasters offer fun, experience

The Spaceland Toastmasters Club is currently very active. An election last May provided the club with a new slate of officers: Phonicille DeVore, President; Doris Folkes, Educational Vice-President; Hope Treffals, Administrative Vice-President; Faye Chaviers, Secretary; Edna McAnnelly, Treasurer; and Bert Hanson, Sergeant-at-Arms.

Members meet the second and fourth Wednesdays of each month at 11:30 at the Bonanza Restaurant on NASA Rd. 1. Interesting topics are discussed and educational speeches presented.

Visitors to the club are welcome. Plan to spend an inspiring lunch period combined with practical speaking experience.

Membership is open to JSC and