

Space News Roundup

Vol. 20 No. 10

May 22, 1981

National Aeronautics and Space Administration

Shuttle Update

NASA program managers have reassessed turnaround requirements for Space Shuttle Orbiter Columbia and have moved the target STS-2 launch date up to September 30. The previous target date was in mid-October.

The new launch date was described by Kennedy Space Center officials in a recent news conference as "ambitious, but realistic."

Modifications to the Columbia appear to be on schedule. Thermal protections system inspection is scheduled for completion by next Tuesday and the turbopumps on the three main engines are in the process of being removed.

Auxiliary Power Unit No. 2 has been removed and the Development Flight Instrumentation pallet was disconnected and scheduled to be moved to a new location in the payload bay to make room for OST-1, the package of scientific instruments and experiments which will fly on STS-2.

Checkout work continues on the External Tank and installation of ordnance in the tank's range safety system was completed.

Stacking of the motor casing segments of the Solid Rocket Boosters was scheduled to begin earlier this week following inspection of the propellant grain.

HEAO-2 Mission Concludes

NASA's second High Energy Astronomy Observatory (HEAO-2) has expended its control gas supply, completing its flight mission.

HEAO-2 is one of a family of three highly successful scientific satellites managed by NASA's Marshall Space Flight Center, Huntsville, Ala. With two years and five months of operations, HEAO-2, like its predecessor, HEAO-1, performed more than twice as long as its design called for — a feat expected to be equaled by the third observatory which is still in operation.

The HEAO-2 spacecraft was launched Nov. 13, 1978. It carried the world's largest focusing X-ray telescope and an array of imaging and analyzing astronomy instruments. During its extra-long lifetime, it performed thousands of studies of X-ray emitting stars, supernova remnants, galaxies and quasars.

Although it will take years for participating astronomers to completely analyze all the data they received, important discoveries have already been made concerning the X-ray output of normal stars, the composition of supernova remnants, the distribution of mass in galaxies and clusters of galaxies and the origin of the extragalactic X-ray background.

Yardley Returns to Industry STS Chief Joins McDonnell Douglas

John F. Yardley, NASA Associate Administrator for Space Transportation Systems, has been named president of McDonnell Douglas Astronautics Co., Division of McDonnell Douglas Corp., St. Louis, Mo.

Yardley joined NASA in May 1974 as Associate Administrator for what was then called the Office of Manned Space Flight. In his current position he has been responsible for development and acquisition of the Space Shuttle, its upper stages, associated ground facilities and equipment and system improvements.

L. Michael Weeks will become Acting Associate Administrator for Space Transportation Systems at NASA effective June 1.

Yardley came to NASA from McDonnell Douglas Astronautics, where he was vice president and general manager of the Eastern Division.

He joined McDonnell Aircraft Corp. in 1946 as a structural engineer and went on to become project engineer for Mercury spacecraft design, launch operations manager for projects Mercury and Gemini, and vice president and general manager for the Skylab project.

Born in St. Louis in 1925, he received his bachelor's degree in aeronautical engineering from Iowa State College in Ames in 1943 and his master's degree from Washington University, St. Louis, in 1950. He

served in the U.S. Navy in World War II.

Yardley received NASA's Public Service Award for his contributions to the Mercury Program in 1963, and for the Gemini Program in 1966. He was awarded in Spirit of St. Louis Medal by the American Society of Mechanical Engineers. He is a fellow of the American Institute of Aeronautics and Astronautics and the American Astronautical Society and is a member of the National Academy of Engineering.

He and his wife, the former Phyllis Steele, have five children and make their home in Potomac, Md.

Twenty Years Ago

Freedom 7's Historic Flight

KENNEDY SPACE CENTER, Fla. — It was a pioneering flight that opened a new arena for human accomplishment — space.

Tensions mounted as the moment of liftoff neared.

And then...

"...five, four, three, two, one, zero. Liftoff. You're on your way, Jose," came the send-off from Deke Slayton in Mission Control.

A reassuring voice responded quickly: "Roger, liftoff and the clock is started. Reading you loud and clear. This is Freedom Seven."

Alan Shepard was off the ground and on his way to becoming the first American in space.

May 5 marked the 20th anniversary of Freedom Seven's historic flight and birth of the United States' manned space program.

Though Shepard's journey lasted only 15 minutes, it was the beginning of a great endeavor that would eventually land Americans on the Moon and lead to the creation of a new national resource which will enable the nation to use this new environment to its fullest — the Space Shuttle.

At 9:34 a.m. on May 5, 1961, the slender black and white Redstone rocket roared to life.

With just about one percent the liftoff thrust of the Space Shuttle, the Redstone boosted a tiny Mercury spacecraft containing Shepard on a ballistic trajectory that would peak 116 miles above the Earth's surface and bring Freedom Seven to a splash-down in the Atlantic Ocean a little over 300 miles downrange from Cape Canaveral.

America's first manned space mission was an unqualified success.

Inside the thick walls of the concrete blockhouse at Launch Complex 5/6, which is located near the southern end of what is now Cape Canaveral Air Force Station, the firing room remains much as it was on that morning 20 years ago.

When you push four small black buttons, the row of aging consoles comes to life with red and green

lights blinking to the rhythm of an electrical switch's noisy clicks.

Here are the antiques of the space age — bulky racks of ground equipment monitors, event recorders, bundles of patch cords, desk-top consoles with dials and toggle switches giving away their vintage.

Through a row of narrow windows — each containing three panes of bulletproof glass — one can see a Mercury Redstone rocket resting on its launch pad less than a hundred paces away. An upper row of windows is angled toward the sky.

In an adjacent room, where the original consoles have been removed, are more artifacts — flight hardware, testing gear, guidance equipment.

Around the corner are the telemetry and communications panels, and the Astronaut Body Function Recorder which monitored pulse, blood pressure, respiration and temperature.

Just outside the blockhouse's heavy exterior door is a bronze memorial dedicated in 1971 on the 10th anniversary of Shepard's flight.

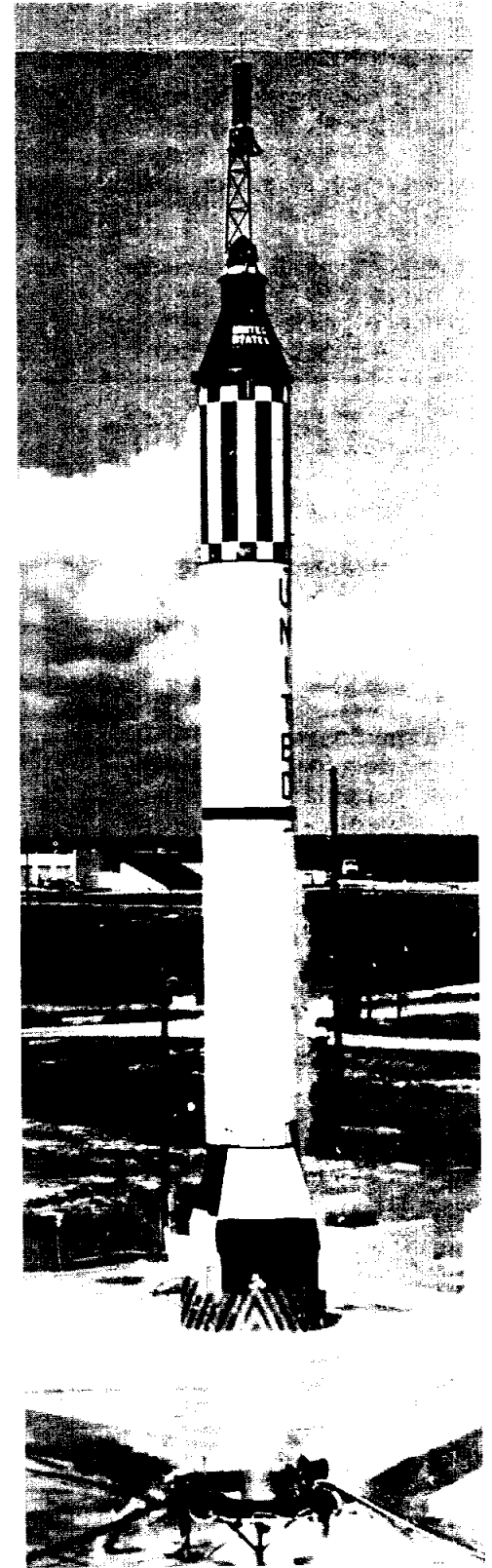
"From this beginning, Man reached the Moon," the inscription on the plaque reads in part.

On the short stroll out to the desolate launch pad, the sounds of nature are broken only occasionally by a public address announcement coming from somewhere off in the distance.

The site — now silent much of the time — bustled with activity the morning's of Shepard's flight.

A team of more than 70 engineers, technicians and officials crowded into the blockhouse built to accommodate 55.

Though it was long ago abandoned as an active site, the launch complex is now part of the sprawling Air Force Space Museum. It comes to life once again during frequent visits by those taking guided bus tours of the Kennedy Space Center and the Sunday drive-through tours of Cape Canaveral Air Force Station.



From Antarctic Find

Diamond Particles in Meteorite Rare Discovery

Tiny crystals of diamond, formed in an ancient cosmic catastrophe, have recently been found in a 10.4-kilogram (23-pound) iron meteorite collected from the antarctic ice cap in 1977. The discovery was reported in the magazine *Nature* by Roy S. Clarke Jr., Daniel E. Appleman and Daphne E. Ross, all of the Smithsonian Institution's National Museum of Natural History.

The antarctic meteorite pro-

gram is a joint activity of the National Science Foundation, the Smithsonian Institution and NASA. The specimens are preserved, described and distributed by NASA's Planetary Materials Laboratory at Johnson Space Center, Houston.

This is only the second iron-type meteorite discovered to have diamonds within it. The other meteorite, the Canyon Diablo, was much larger on im-

pact.

Diamonds within it are believed to have been produced as a result of the shock pressure of impact when it hit the Earth. The antarctic meteorite is much smaller and would not have produced a sufficient shock when it hit the Earth — the diamonds therefore must have been produced as a result of a collision in space.

The diamonds, a type of crystalline carbon that forms at high pressures, were found as invisible crystals in small carbon-rich fragments found inside the nickel-iron metal that makes up the meteorite. They were discovered when a saw used to slice the meteorite came up against one of the diamond-bearing inclusions and refused to cut further. X-ray studies then established the presence of diamond, together with two other forms of carbon: a rare mineral called

lonsdaleite, chemically identical but a different crystal structure than diamond; and graphite, the familiar form of carbon used in lead pencils.

The tiny amounts of diamond found by Dr. Clarke and his colleagues have no commercial value. The meteorite is probably a fragment of an asteroid, and the diamonds in it bear witness to a great collision that probably took place in the asteroid belt many millions of years ago. Diamonds only form at high pressures, such as those existing deep within the Earth. In a small object like a meteorite, such high pressures can only be supplied by intense shock waves produced as asteroids collide with each other — or with the Earth — at speeds of tens of thousands of miles an hour.

Only one other iron meteorite has been found to contain diamonds. This is the Canyon Diablo meteorite that

formed the mile-wide Meteor Crater in Arizona about 50,000 years ago. Diamonds in this meteorite occurred in the same way — as tiny crystals in carbon-rich inclusions in the metal.

"The diamonds in the Canyon Diablo meteorite seem to have formed when it hit the Earth and made Meteor Crater," said Dr. Clarke. "The shock waves produced by the impact converted natural carbon (graphite) in the meteorite into diamonds. But the antarctic meteorite is too small to have formed a crater. Being small, it would have been slowed down as it came through the atmosphere, and it would have hit the ice at a low speed. So the diamonds must have formed before then, probably as the result of two asteroids colliding with each other. This meteorite is a piece from the collision."



Peggy Koshenina's day begins in the Flight Planning Branch of Mission Planning and Analysis and ends with Karate, or dance, music or the theater.

Peggy last month was awarded the title of Miss Clear Lake City and next is headed for the Miss Texas USA pageant in El Paso.

A Co-op student at JSC, Peggy hopes to obtain her degree in mathematics, have a successful career in engineering, travel and model professionally. She is a graduate of Clear Creek High School.

Her achievements include a green belt in aikido, blue belt in Karate, and Miss Southwest Hemisphere.

JSC EEO Office Sponsors Aerospace Career Seminars

The JSC Equal Opportunity Programs Office sponsored "NASA Aerospace Symposium '81" at Edinburg High School in Edinburg, Texas on April 8, 9, and 10, 1981.

The purpose of the symposium was to motivate students, especially minorities and women, to consider careers in science and engineering.

A series of seminars provided insight to careers in engineering and science. The

symposium was divided into six half-day sessions and a special evening awards program for parents and other guests. Awards were presented to students who submitted the best science papers.

The target audience was middle, junior high, and high school students. Officials, administrators, counselors, and teachers from 25 adjacent area schools were also invited. The number of participants was estimated at 3,000 approximately 1,000 per day. In addition, space mobile presentations were made to approximately 4,000 other students.

JSC personnel participating in the symposium included Jose R. Perez, deputy chief, Equal Opportunity Programs Office, Ralph Gonzalez, Reuben Taylor, Manuel Rodriguez, Martha Caballero Speller, Efen Calvillo, Virginia Hughes, Carlos Ramirez and Charles Hoskins.

The mayor of Edinburg, Ronald A. Case, issued a proclamation designating April 8-10, 1981 as "NASA Symposium Week."

Children's Dinner Theatre - The children's Dinner Theatre is back with a production of "The Wizard of Oz". Performance will be on Saturday, June 6th at noon. Play will be preceded by a lunch of hot dogs, chips, coke and dessert. Cost is \$2.00 per person. Buy your tickets at Bldg. 11 Exchange Store.

Adult Dinner Theatre - The EAA adult Dinner Theatre is back with "Dirty Works At The Crossroads", a Gay Nineties Melodrama. Program will be held on June 12 and 13 with a Social Hour at 7:00 p.m., Roast Beef dinner at 8:00 p.m. and the play at 9:00 p.m.. Get your tickets while they last at Bldg. 11.

Savings Bond Rate Up - The U.S. Treasury has announced that interest rates on U.S. Savings Bonds have increased to 9 percent (when held to maturity) and that the maturity period has been shortened to eight years.

NARF Meeting Set - The Houston-NASA Chapter 1321 of the National Association of Retired Federal Employees will meet for a covered dish dinner at 6 p.m. Friday June 5 at the Clear Lake Park Building on NASA Road One. The Clear Creek Country Theater will present the musical review "Comin' on Thru," with Nat Vaughn and Kirby Gosnell and Company. Visitors are welcome. For more information call May Olsen, 334-3270.

Bulletin Board

May Fun Run - will be held on Saturday, May 30 at 8:00 a.m.. Race distances are 15 km and 2 mile, with medals to top three in each category in the 15 km and ribbons to the 2 milers. Cost is \$2.00 for 15 km and \$1.00 for 2 mile. Call x3594 for entry blanks.

Registration is being accepted in the following leisure time classes at the Recreation Center:

Scuba Class - The JSC Scuba Club will offer a 7 week class leading to NAUL certification. Classes meet at the Gilruth Rec Center on Tuesdays from 6:30-9:00 beginning June 9. Students perform in the pool from 7:30-10:00 p.m. on Thursdays. Cost for the course is \$100.00.

Defensive Driving - Learn the art of safe driving and qualify for a 10% reduction on your auto insurance for the next three years. Class meets on Saturday, July 18 from 8:00 a.m. - 5:00 p.m.. Cost is \$15.00 per person.

Aerobic Dance - Part dance, part exercise - all fun. This class is offered on Monday and Wednesday mornings from 9:00-10:00 a.m. beginning June 22 and Tuesday and Thursday afternoons from 4:15-5:15 p.m. beginning June 23. Cost is \$40.00 for this 8 week course.

Ladies Exercise Class - Designed to catch all you ladies right after work, this class meets on a continuing basis on Tuesday and Thursday from 5:15-6:15 p.m. The cost is \$12.00 per month.

Other events now available at the Rec Center include:

Volleyball Registration - Teams are now being accepted in the Summer Volleyball League. Entries will be accepted in men's and women's competitive and recreational leagues as well as mixed leagues. Cost is \$45.00 for EAA teams and \$90.00 for non-EAA teams. Entry deadline is May 29th.

Softball Tourney - Entries are now being accepted for the men's and women's softball tourney to be held on June 5, 6, and 7. Men's teams must be industrial (all employed by same company) while women's teams are open. Cost is \$65.00 for this double elimination tourney. Deadline is June 3.

Cookin' in the cafeteria

Week of May 25 - 29, 1981

Monday: HOLIDAY

Tuesday: Beef & Barley Soup; Turkey & Dressing; Country Style Steak; Beef Ravioli; Stuffed Cabbage (Special); Corn Cobette, Okra & Tomatoes; French Beans.

Wednesday: Seafood Gumbo; Catfish w/Hush Puppies; Roast Pork w/Dressing; Chinese Pepper Steak (Special); Broccoli; Macaroni & Cheese; Stewed Tomatoes.

Thursday: Cream of Tomato Soup; Beef Tacos; BBQ Ham Slice; Hungarian Goulash; Chicken Fried Steak (Special); Spinach; Pinto Beans; Beets.

Friday: Seafood Gumbo; Liver w/Onions; Deviled Crabs; Roast Beef w/Dressing; Seafood Platter; Tuna & Noodle Casserole (Special); Whipped Potatoes; Peas; Cauliflower.

*Menu subject to change without notice.

Week of June 1 - 5, 1981

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.

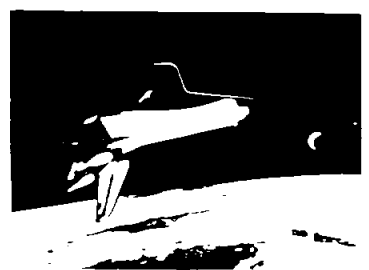
Tuesday: Split Pea Soup; Shrimp Creole; Salisbury Steak; Fried Chicken (Special); Mixed Vegetables; Beets; Whipped Potatoes.

Wednesday: Seafood Gumbo; Fried Catfish w/Hush Puppies; Braised Beef Rib; BBQ Plate; Weiners & Beans; Shrimp Salad; Stuffed Bell Pepper (Special); Corn O'Brian; Rice; Italian Green Beans.

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

Friday: Seafood Gumbo; Broiled Turbot; Liver w/Onions; Seafood Platter; Fried Shrimp; Meat Sauce & Spaghetti (Special); Green Beans; Buttered Broccoli; Whipped Potatoes.

Roundup deadline is the first Wednesday after publication.



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 all space center employees.



E&D Celebrates Role In Shuttle Success

Nearly 500 people gathered at the Gilruth Recreation Center May 5 to celebrate the contributions made by the Engineering and Development Directorate to the successful STS-1 mission.

Displays and slides representing the various organizational elements contributing to the Shuttle were on display.

Dr. Max Faget, director of E&D, reminded the gathering of the events leading up to the development of the Shuttle and the Johnson Space Center involvement. He described the decision 12 years ago to determine the feasibility of a winged reusable vehicle. Earlier consideration had been given to use of an enlarged Apollo or Gemini capsule for transportation to a space station.

"The thermal protection system would never have

evolved into a workable system without the efforts of the Structures and Mechanics Division," Faget noted.

"The propulsion system, OMS and RCS exist because of the Propulsion and Power Division experts. The avionics systems allowed the first totally fly-by-wire airplane with no hard linkage backup system.

"No airplane had ever flown faster than Mach 6, but the Shuttle Orbiter flew four times that fast and did it the hard way, from high speed to low speed, completely different from anything ever done before. You who did the engineering did make this flight happen and I am proud of you," Faget concluded.

Faget was presented with a pewter belt buckle in the form of a Shuttle Orbiter.

Payroll Savings.

The cold, hard, calculating way to get a nice, warm feeling of security.

"History is the story of the defiance of the unknown and of what happens when man tries to extend his reach."

—Norman Cousins



Roundup Swap Shop

Ads must be under 20 words total per person, double spaced, and typed or printed. Deadline for submitting or cancelling ads is 5 p.m. the first Wednesday after publication. Send ads to AP3 Roundup, or deliver them to the Newsroom, Building 2 annex. No phone-in ads will be taken. Swap Shop is open to JSC federal and on-site contractor employees for non-commercial personal ads.

Property & Rental

Lease: luxurious, spacious Bal Harbour Townhouse. Three levels, 2-2 1/2-2 microwave oven, fireplace, decks, skylights, atrium 2200 sq. ft. 482-7602.

Sale: 3-2-2, fireplace, fenced, assume 9%, \$68,000 non-escalating 2635 Plymouth Rock, Webster (Heritage Park) x5844, 332-8291.

Tiki Island, lot 53, Section 6, \$7000 cash or terms 488-3238 after 5 p.m. or x4468, A. F. Smith.

For Rent: Jamaica Beach Cottage, \$220/wk. Make reservations now for summer season. Call 334-1640 after 6 p.m.

Rent/Lease: 3-2-2, a/c, large fenced yard, patio, fresh paint inside out, \$495/mo. plus deposit. 482-6609 after 5 p.m. or x5303.

Building materials: Sawtex siding board 1x5/8 x 16 cost \$5.85/pc Sale for \$2.00/pc. 482-6609 after 5.

Beautiful Friendswood country living with income. No flood. 2,000 sq. ft. custom brick, 40 ft. pool, 1,700 sq. ft. frame, 5 outbuildings 15 acres, big trees 331-5816.

Rent a furnished room to conscientious non-smoker. \$160/mo. utilities paid 6 mi. from NASA. Jeff x7429 or 482-5393.

For Sale: League City 3-13/4-2, fireplace, near pool, park, school, \$62,900 assume 8 1/2%. VA, 554-6200.

Cars & Trucks

For Sale: 1970 Mercury Marquis station wagon, \$400 Morris 483-4204 or 482-7775.

1980 Pontiac Grand Prix-Midnight Blue with Landeau Excellent condition.

AM/FM/8-track. Air condition. For more information call 935-8876.

1975 Ford Granada 2 dr. Ghia, 6 cyl. PS, PB, air, vinyl roof, 56,000 miles. A good condition, clean car. \$2,350 482-1535.

76 GMC 1/2 ton pickup, ac, ps, WSW, Auto, Radio, Eng/trans just replaced. \$2700. Cundieff, x2051, 334-2305.

BF Goodrich Tires-6.00 SI2, 4 ply rating. Fits Honda Civic or similar small car. Set of 4-\$40.00 Myra x5834.

For Sale: 1970 Oldsmobile 98 Dependable good work car, 2635 Plymouth Rock, Webster (Heritage Park) x5844, 332-8291.

'79 Datsun king cab pu, 4 sp, ac, stereo, 8-track fiberglass camper, sun-roof x6241, 643-8170 after 5 p.m.

1979 Oldsmobile Cutlass Bougham station. Auto, ac, am/fm tape luggage rack, perfect condition, \$4,900, 482-8774 after 5 p.m.

1978 Ford LTD, 4-door, am/fm 8-track, ac, ps, pb, vinyl top, \$3500. Harriett Powers, 332-8352 after 6:30 p.m. 791-2230 8-5.

1978 Camero, AC, AM/FM, auto, good condition. 482-8425 after 5.

Boats & Planes

Builtwell boat and trailer, \$100. Joan x4393 or 488-0559.

For Sale: 100 HP Johnson outboard motor. Old but runs good! \$200. Call x3977 or 422-0451 after 5 p.m.

Outboard motor, 1980 Chrysler 7.5 HP, perfect, \$500. Right rear fender for Chevy pickup 1969-1972, already removed \$50. Steve x3212.

Miscellaneous

1977 Ford 1/2 ton pick-up Shop Manual-Complete set \$8. 485-6423.

Accordion, 120 Base, with case \$115. 485-6423.

Wanted Apple II or TRS-80 computer. Phil x4801 or 333-2476 after 5.

Tennis Racquet-Yamaha composite \$25.00, Bancroft Borg personal strung with Gamma Gut, string 1 wk old \$40.00 Richard x6388 - 484-3738.

Garage Sale: May 23-25: Bar, Furniture, Electric & Steel Guitars, Lawnmower, Misc. 332-8291, x5844.

Scubagear-tanks, B.C., weights, regulators, belts, offer 470-0279.

6 inch Photoheliograph, \$6000; Heath AA-11 Pre-Amp, \$40. Samouce x4727.

Two deluxe oversized coleman sleeping bags, dacron "88" filling Bags zip together for double. \$15 each. John x4393, 488-0559.

4 metal storage cabinets (brown finished). Excellent for storing clothes, garage supplies, etc. Vertical (2 door) with shelf and bar across. Approx. 3x6 ft. 2 for \$5.00/ 2 for 4.00 x4381 after 5 488-1256.

Pottery Buffs: Brent kickwheel; fully assembled; used once; instruction book; clay and tools included; \$165.00 John after 6 pm 482-8932.

Sears air hockey \$50.00 Phone 488-2652.

Kleinschmidt Printer, interface to microcomputer, \$75 Hartman x5247.

Rear bumper for '81 Mercedes 240D. Brand new with one small blimish. Priced \$200 off. Call Bill x2383 or 482-2369.

For Sale: Set of 1968 Chev. factory manuals (3 vols) plus (1) vol. "Fix Your Chev.," 1971-1954 \$12. x6434.

Household Article

Whirlpool, 20 cu. ft., no-frost, white, 3 yrs old, excellent \$250. GE washer, 6 yrs old, good condition, \$100. Moving overseas, Bill Crimmel x3035/334-5964.

Brown fur sofa, love seat, chair in excellent condition. One coffee table also good condition. All for \$350 x5884.

Short shag tan carpet 12'x15' w/3/4" pad like new, \$60; short shag lt/dark blue 9'x12' good condition, \$25. Pattie x2194.

TV Antenna - For color, UHF, FM, and all other related waves in the ether. Brand new including 50-ft. 2 lead-wire. Victimized by cable TV - \$25.00 Rubenstein x5803 or 334-2354.

Four piece living room group, modern, like new, a steal at \$325, 470-0279.

For Sale: White formica kitchen table w/4 yellow and white chairs \$63 Lyn x5315.

"Used Singer Portable sewing machine, Zig-Zag, good condition, first \$50 gets it. 482-6103.

Antiques: Four dining chairs, mahogany, very nice; two oak pressed-back chairs; oak chest of drawers. 944-8201 after 5.

Lost & Found

Two folding lawn chairs May 2 at JSC picnic at Camp Manison, Walker x5956.

Cycles

For Sale: Honda XL 350 \$495
Honda cl 125 \$425
Honda CT 70 \$120
Yamaha DT 100 \$275
Call Chris after 4 - 482-4793

Pets

Doberman pups, red, 6 weeks old, all shots, \$100, evenings 488-3346.

Registered female Boston Terrier. Has had all shots. Call after 4:30 p.m. 339-1793.

Carpool

Wanted person(s) to join carpool, 7:30-4:00 shift; parking space behind Bldg. 16, Red Bluff, south of Spencer area to Fairmount Park, LaPorte areas. Call Donna, x4571.

Am interested in joining carpool from Baytown, Garth Rd. area 7:30-4:00 call Darena Taylor x3527.

Drive one day a week, every 4th week drive twice 7:30-4, Pasadena Rayburn-Mulberry area. Morton x3537.

Wanted: Female, for carpool from Texas City to JSC 7:30-4:00, Linda x4846, Home 948-9564.

Need carpoolers from East End of Dickinson to vicinity of building 30, 12, 45, etc. Have reserved parking by bldg. 12. Hours 7:30 to 4 p.m. x4717.

Need ride from Dickinson near the Freeway to NASA Bldg. 42, between the hrs of 7:30-4:00 x5881 after 4:30 phone 534-4685. Ask for Beryl Esterly.



ANNUAL JSC PICNIC

Despite overcast skies and an occasional brief sprinkle the annual JSC picnic at Camp Manison in Friendswood met with typical success. A large crowd of NASA civil service and contractor employees and their families attended the May 2 event, enjoying a barbecue lunch, dance exhibitions, a skydiving exhibition and a variety of competitive games.

Pressure Systems Week May 24-30 at JSC

The week of May 24-30 has been designated Pressure Systems Week at Johnson Space Center to increase employee awareness of the hazards associated with pressurized con-

tainers, piping and related components.

Injury and Property damage often results from the improper use of pressurized equipment by persons not

familiar with the explosive energy contained in such common items as fire extinguishers, aerosol cans, compressed air tanks and others.

On November 22, 1976, JSC instituted the Pressure System Certification Program, concerned with the overall management of design, inspection, certification and operation of ground-based pressure vessels, pressurized systems and their components which are owned by JSC or used at the center. Under the program, facility managers are responsible for seeing that equipment is certified in accordance with applicable regulations.

The increasing use of high pressure technology at JSC in test programs and equipment operation has made the certification program necessary.

NASA has sustained several losses in pressure-related failures, the most recent at Marshall Space Flight Center in Huntsville, Ala., in

which two test building exploded. The incident occurred only 30 minutes after 25 members of the facility operation team had left the area. The explosion was the result of hydrogen leaking from a corroded underground pipe.

A pressure vessel ruptured at JSC recently when a chemical reaction inside the tank produced sufficient gas to cause overpressurization. There was only minor damage and no injuries.

Proper usage and maintenance of pressurized articles around the home can prevent accidents. The relief valve on the water heater should be checked periodically to prevent overpressurization of the internal tank. The valve can stick to the sealing seat and higher than normal pressure is needed to relieve tank pressure. Older tanks which have deteriorated may not be strong enough to handle the increased pressure.



This photo shows what a defective steel pressurized dry chemical fire extinguisher looks like after it explodes.