Lyndon B. Johnson Space Center

Space News Roundup)

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National Aeronautics and Space Administration

NASA names 17 candidates

NASA has announced 17 new astronaut candidates for the Space Shuttle program, 4 of whom now work at the Johnson Space Cen-

Current JSC employees selected to become astronaut candidates are: U.S. Army Maj. James C. Adamson, a flight controller in the Systems Division; Marsha S. Ivins, a flight simulation engineer with the Aircraft Operations Division; Dr. Ellen L. Shulman, a medical officer with the Medical Sciences Division; and Charles L. Veach, an aerospace engineer and pilot with the Aircraft Operations Division.

The list also includes a current employee of the Jet Propulsion Laboratory and the son of former Apollo Program Manager George M. Low.

Seven are pilot astronaut candidates and 10 are mission specialist astronaut candidates. They will report to JSC this summer to begin a year-long program of training and evaluation. Subsequently, successful candidates will begin training assignments leading to selection for Space Shuttle flight crews.

NASA received 4,934 applications, of which 128 were interviewed and given medical examinations at JSC.

A listing of candidates and their biographical information follows:

U.S. Army Maj. James C. Adamson: A flight controller with the Systems Division at JSC, Adamson resides in Seabrook, Texas. He was born March 3, 1946 in Warsaw, New York. He earned his B.S. in engineering from the U.S. Military Academy at West Point in 1969 and his M.S. in aero and mechanical engineering from Princeton University in 1977. He is the son of Mr. and Mrs. Herman Adamson of Geneseo, New York. (Mis-

U.S. Air Force Capt. Mark N. Brown: Although a pilot with the F-4 Replacement Training Unit at Homestead AFB, Florida, Brown

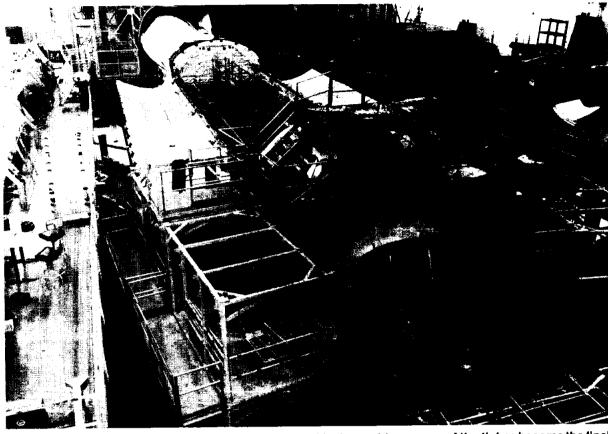
resides in Pearland, Texas. He was born in Valparaiso, Indiana on Nov. 18, 1951. He earned his B.S. in aeronautical and astronautical engineering from Purdue University in 1973 and his M.S. in astronautical engineering from the Air Force Institute of Technology in 1980. He is the son of Mr. and Mrs. Richard S. Brown of Valparaiso. (Mission Specialist)

U.S. Marine Corps Maj. Kenneth D. Cameron: A project officer with the Marine Aviation Detachment at the Naval Air Test Center in Patuxent River, Maryland, Cameron resides in Patuxent River. He was born Nov. 29, 1949 in Cleveland, Ohio. He earned his B.S. in aeronautics and astronautics from the Massachusetts Institute of Technology in 1978 and his M.S. in aeronautics and astronautics from the same institution in 1979. He is the son of Mr. and Mrs. Donald B. Cameron of Westport, Connecticut. (Pilot)

U.S. Navy Comdr. Dr. Manley L. Carter Jr.: A test pilot under instruction at the Naval Air Test Center at Patuxent River, Maryland, Carter resides in California, Maryland. He was born Aug. 15, 1947 in Macon, Georgia. He earned his B.A. in chemistry from Emory University in 1969 and his M.D. from Emory in 1973. He is the son of Mr. and Mrs. Manley L. Carter Sr. of Warner Robins, Georgia. (Mission

U.S. Air Force Lt. Col. John H. Casper: Deputy Chief of the Special Projects Office, U.S. Air Force Headquarters in Washington, D.C., Casper resides in Alexandria, Virginia. He was born July 9, 1943 in Greenville, South Carolina. He earned his B.S. in astronautics and engineering science from the U.S. Air Force Academy in 1966 and his M.S. in astronautics from Purdue University in 1967. He is the son of Mr. and Mrs. John Casper of Gainesville, Georgia, (Pilot)

U.S. Navy Lt. Comdr. Frank L.



With the Orbiter Discovery now at the launch pad poised for her maiden voyage, Atlantis has become the final Orbiter yet to be added to the Shuttle fleet. The new Orbiter is shown here under construction in California. Delivery is set for next spring.

New Mexico. He earned his B.S. in aerospace engineering from the U.S. Air Force Academy in 1973 and his M.A. in management from Webster College in 1977. He is the son of Mr. and Mrs. Robert A. Gutierrez of Albuquerque. (Pilot)

U.S. Air Force Capt. Lloyd B. Hammond Jr.: An instructor pilot at the USAF Test Pilot School at Edwards AFB, Hammond resides in Edwards, California. He was born Jan. 16, 1952 in Savannah, Georgia. He earned his B.S. in engineering mechanics from the U.S. Air Force Academy in 1973 and his M.S. in engineering mechanics from the Georgia Institute of Technology in 1974. He is the son Culbertson Jr.: A naval aviator with the F-14 Replacement Air Group at Oceana NAS, Virginia, Culbertson resides in Lexington Park, Maryland. He was born May 15, 1949 in Charleston, South Carolina. Culbertson earned his B.S. in aerospace engineering from the U.S. Naval Academy in 1971. He is the son of Dr. and Mrs. Frank L. Culbertson Sr. of Holly Hill, South Carolina. (Pilot)

U.S. Air Force Capt. Sidney M. Gutierrez: A test pilot at the Air Force Flight Test Center at Edwards AFB, California, Gutierrez resides in Edwards, California. He was born June 27, 1951 in Albuquerque.

of Mr. and Mrs. Lloyd B. Hammond Sr. of Lutz, Florida. (Pilot)

Marsha S. Ivins: A flight simulation engineer with the Aircraft Operations Division at JSC, Ivins resides in Webster, Texas. She was born April 15, 1951 in Baltimore, Maryland. She earned her B.S. in aerospace engineering from the University of Colorado in 1973. She is the daughter of Mr. and Mrs. Joseph L. Ivins of Wallingfond, Pennsylvania. (Mission Specialist)

U.S. Air Force Capt. Mark C. Lee: An F-16 pilot with the 388th Tactical Fighter Wing at Hill AFB, Utah, Lee resides in Layton, Utah. He was born Aug. 14, 1952 in Viro-

(Continued on page 4)

Employee teams stress i

"The emphasis is on employee involvement and the attitude is definitely enthusiastic," declares Alma Martin, JSC's NASA Employee Teams (NETS) Coordinator, when she describes the pilot program underway at JSC

more teams planned in the next several months. The program is part of a NASA-wide effort aimed at increasing employee participation and enhancing productivity. JSC teams include:

• A nine-member team repreat the Center, with six to eight and Quality Assurance Division

which hopes to help formulate a viable safety program in Technical Services. Team Leader is John Heckler; Facilitator is John P. Kochner.

· A Center-wide team made up of eight executive secretaries, two There are six NETS now active senting Technical Services Division administrative officers, and one employee development specialist



Employees involved with the NETS program here include, front row, left to right: John Heckler, team leader; Lyn Stabler, Martin Marietta instructor; Estella Gillette, facilitator; Barbara Perkins, team leader; Eleanor Der Bing, team leader; and George Rand from CSC. Back row, left to right: Clarence Williams of the Employee Development Branch; Graydon Owens, team leader; Harvey Hartman, Deputy Personnel Officer; Virginia Hughes, facilitator; Glory Allahverani, team leader; Carolyn Lowrimore, team leader; John P. Kochner, facilitator; Alma Martin, NETS coordinator; John Duncan, facilitator; and William Lee, facilitator.

that is looking into basic training for new JSC secretaries. This group is led by Carolyn Lowrimore, and the Facilitator is John P. Kochner.

• A seven-member team in the Institutional Procurement Division that is developing improved instructions for purchase request initiators. Team Leader is Eleanor Der Bing: Facilitator is John Duncan.

• A Directorate-wide team in the Administration Directorate consisting of secretarial and word processing personnel that is working on a quick reference guide for the Directorate's Displaywriter users. This seven-member group is led by Barbara Perkins, and the Facilitator is Estella Gillette.

• A six-member team from the Facilities Design Division which is seeking ways to minimize requirements and provide alternatives for the folding of construction drawings by project engineers. This team is led by Graydon E. Owens, and the Facilitator is Virginia Hughes.

 A six-member team representing four organizations—Technical Services Division, Quality Assurance Division, Logistics Division, and Institutional Procurement Division—which is exploring ways to expedite purchase requests through the administrative system. Team Leader is Glory Allahverani; Facilitator is William Lee.

The NETS now in operation came into being following briefings in February which were offered to interested organizations. Eighteen JSC organizations (division level or above) responded to this offer and requested briefings for their managers. After these briefings, 60 percent of the managers felt the NETS offered potential for their organization and asked that their employees be briefed. Approximately 500 JSC employees were introduced to the concept in the next few weeks.

After these briefings were completed, organizations were asked to appraise the potential for starting NETS in their areas. Selection of the first six teams was made by the Center's NETS Steering Group. The Steering Group includes: Chairman Harvey L. Hartman, Deputy Personnel Officer; Charles S. Harlan; Deputy Director, SR&QA; Daniel A. Nebrig, Deputy Director, Administration; J.D. Williams, Chief, Technical Services Division; and NETS Coordinator Alma Martin.

Training sessions and selection of additional NETS teams is expected within the next 2 months.

The NASA Employee Team (or NETS) approach is one part of the Productivity Improvement and Quality Enhancement program instituted by NASA Administrator James Beggs last year.

Space News Briefs

Viking transferred to Air & Space

NASA transferred ownership of Viking Lander 1 to the Smithsonian's National Air and Space Museum at ceremonies May 18. This is the first time that a museum has had ownership of an object on another planet. Although Viking Lander 1 will probably never be brought back to Earth, NASA does plan a revisit to the site when manned expeditions to the Red Planet take place sometime in the future. Making observations of weathering on the Lander would be one of the scientific goals of such a visit, but it is also planned to place a plaque there. The plaque officially renames the site the Thomas A. Mutch Memorial Station, in memory of the Viking Lander Imaging Team Leader and NASA Associate Administrator for Space Science who died in a climbing accident in the Himalayas in 1980. In the meantime, that plaque will go on display at the Air and Space Museum.

ESA celebrating 20 years of cooperation

Europe this month is celebrating 20 years of cooperation in space, although a framework for the European program actually can be traced back to 1960. In that year, 12 European states signed the Meyrin Agreement setting up a preparatory commission for European space research. The commission began work in 1961, but it was not until 1964 that a more formalized space convention came into being. It was the European Launcher Development Organization (ELDO) which led in the same year to the establishment of the European Space Research Organization (ESRO) with 10 member nations. Eleven years later, in 1975, the present-day European Space Agency was formed.

Senate Committee approves measure

The Senate Commerce, Science and Transportation Committee reported favorably May 8 on House Resolution 5154, the reauthorization of NASA for Fiscal Year 1985. The funding measure includes \$150 million for extended definition and design studies of the Space Station Program, as well as \$50 million for the Advanced Communication Technology Satellite. The Senate-reported House bill contains the language of S. 2612, as revised, which would authorize a total of \$7.5 billion in FY 85 funding for NASA. The bill also calls for the establishment of a National Commission on Space to devise long-term goals and policy options for the civil space program.

Deere & Co. designing metallurgical tests

NASA and Deere & Company of Moline, Ill., have signed a Memorandum of Understanding expected to lead to metallurgical tests aboard the Space Shuttle. In 1981, Deere became the first private company to sign a Technical Exchange Agreement with NASA. That agreement permitted the company to perform cast iron solidification experiments onboard NASA aircraft during microgravity simulation flights. Deere engineers are using the results from those flights to design tests to be conducted aboard the Shuttle. The Shuttle tests could yield new information to aid in the search for stronger irons.

Bulletin Board

World's Fair tickets on sale

Tickets for the Louisiana World Exposition in New Orleans will soon go on sale in the Bldg. 11 Exchange Store. The World's Fair opened May 12 and runs until Nov. 11. The tickets are \$13.50 for a one-day ticket and \$25 for a two-day ticket. For more information, call Bea Brown at x4813 or x4814.

Clear Lake Osborne and CP/M Group to meet

The Clear Lake Osborne and CP/M Group (CLOG) invites all interested persons to attend the next meeting at 9 a.m. June 9 at the Gilruth Recreation Center. The group offers presentations and educational programs, as well as a large diskette library. For more information, call Maynard Huntley at x6441

Construction to restrict Ave. B traffic

Traffic on the west end of Ave. B will be narrowed to two lanes from now until mid-July, according to Center Operations, as work progresses on the new north perimeter road around JSC. Employees are encouraged to use the JSC Ave. E gate at Saturn, near the Credit Union, as much as possible. Center Ops also requests that employees with no vehicle decal not use the Ave. B gate during construction, since they will have to stop for identification and only one access lane to the Center will be open. Current schedules call for all entrances to JSC to be fully operational by the end of this year.

Retired Federal Employees to meet

The National Association of Retired Federal Employees will meet at 6 p.m. June 5 in the Harris County Park Bldg. on NASA Road 1. All retired NASA employees and those about to retire are invited to attend the dinner meeting. For more information, call Burney Goodwin at 334-2494.

EAP offers counseling assistance

Employees are reminded that the Employee Assistance Program office at JSC provides a variety of services, including counseling for personal needs. Stress, depression, drug and alcohol dependencies and other problems may be aided by this free and confidential service. For information, call EAP Director Gene Horton at x6130.

Gilruth Center News

Call x3594 for more information

Ladies exercise — This class is an exercise program of choreographed routines involving continuous rythmic activity and vigorous exercise set to music. The class meets from 5:15 to 6:15 p.m. beginning June 5 for one month at a cost of \$12.

Dancercise - This class will gradually get you into shape through dance as well as exercise. The six-week course meets from 5:15 to 6:15 p.m. every Tuesday and Thursday beginning June 6. The cost is \$20.

Softball registration — Summer softball registration continues until May 30 at the Rec Center. For information on league play and the nights available, call Helen Munk at x3594.

Defensive driving — Learn to drive safely and qualify for a 10 percent reduction in your auto insurance rates for the next three years. The next class will be held from 8 a.m. to 5 p.m. June 9 at a cost of \$20.

Children's movie — The next movie will be Walt Disney's "Peter Pan," to be shown from 10 a.m. to noon June 23. Tickets are \$1, and that price includes popcorn and soft drinks. Tickets are on sale at the Bldg. 11 Exchange Store.



Anne Morrow Lindbergh, wife of the late pioneer aviator Charles Lindbergh, helps unveil a bust of her husband during ceremonies here May 12. The Lindbergh Fund Memorial Dinner, honoring Gen. James H. Doolittle, was the occasion for a reunion of the original Mercury astronauts, several of whom are pictured here.

Spaceweek events planned

ton observance of Spaceweek have begun to finalize arrangements for events during the week-long celebration July 16 to 24.

Spaceweek is the annual nationwide celebration commemorating the voyage of Apollo 11 in July 1969 and the Viking landing on Mars in July 1976. This year's Spaceweek theme is "Space: America Leading the Way."

In an official proclamation on Spaceweek, Texas Gov. Mark White urged support for the goal of honoring America's past, present and future activities in space, said Spaceweek President Dennis Stone. Some 100 cities nationwide will hold Spaceweek observances, he

Throughout Houston, there will be various lecture series, exhibits. films, astronomical parties, model rocket launches, special planetarium events, hot air balloons and children's events at libraries across the city. Several of the events will take place at or near JSC.

"Sixteen specific events are already confirmed in Houston, many of them free to the public," Stone

The first event in conjunction with Spaceweek will be a conference from July 12 to 14 at the Nassau Bay Hilton on logic and cognitive studies. The conference, sponsored by the University of Houston at Clear Lake, will feature Dr. Matthew Lipman and Astronaut Story Musgrave. For more information, call Dr. Glenn Freedman at 488-9274

Beginning at noon July 16 and Recreation Center.

Organizers for this year's Hous- continuing at the same time throughout the week, the Institute of Electrical and Electronic Engineers will present a series of space and technology-related lectures, all to be held in the Bldg. 2 Teague Auditorium at JSC. Admission is

> On July 18, the Houston Public Library will hold a noon talk on the space program at the Central Branch office downtown.

On July 20, the Houston Club will be the site for a talk by Skylab 4 Commander Col. Gerald P. Carr, who will discuss "Working in Space at Moon Landing Plus 15 Years.' Reservations are required, and you can make them by calling the Space Foundation at 474-2258.

For the second year, students from the Texas A&M Gifted and Talented Institute will put their skills to the test in a fly-off competition, the goal of which is to take the same basic materials and design vehicles which can carry a raw egg 50 feet without breaking it. STS 41-C Pilot Dick Scobee will be the featured speaker at the event, which begins at 12:30 p.m. July 20 at the Mitchell Campus in Galveston.

The Friday Space Voyage Night begins with films this year at 7:30 p.m. July 20 at the University of Houston at Clear Lake. At 9 p.m., immediately following the films, there will be an astronomy star party, with high power telescopes on hand for public viewing of the stars and planets.

That same night, the Lunar Rendezvous Festival Committee will sponsor a Commemorative Banquet beginning at 7 p.m. at the Gilruth

On July 21 and 22 there will be an operating Space Shuttle Orbiter cockpit mockup on display in Bldg.

Also on July 21 and 22, SPACE-PEX '84, the JSC Stamp Club's Philatelic Exhibition, will be on display in the Annex Bldg, at Clear Lake High School. The exhibit is free and will feature judging, dealers, stamp swapping and a stamp auction.

On July 22, the NASA-Houston Section of the National Association of Rocketry will hold a model rocket demonstration launch from 1 to 4 p.m. Over 100 model rockets will take to the skies during the demonstration, to be held in the field behind the Saturn V display at JSC

Capping off Spaceweek activities will be the gala Moon Waltz Ball on Saturday, July 28 at 8 p.m. at the River Oaks Country Club. The Ball is sponsored by the Texas and Spain Society, and the theme this year is "Women in Space." The event will benefit the Museum of Medical Science. Contact Margo Beltram at 789-1963 for reserva-

Spaceweek officials are also planning for hot air balloon displays, additional space films and exhibits in various malls in the areas. More detailed plans will be announced in the near future.

Organizations wishing to take part in July's public events are encouraged to contact Joy Hindman at 483-2544 or 944-3997. For further information and updates on Spaceweek activities, call the Spaceweek Hotline at 483-2477.

U.S., Israel take part in earthquake studies

Mediterranean region will be the subject of a study by NASA and the Israeli Space Agency.

The focus of the program will be to make precise determinations of very small movements of the Earth's on long-term loan from NASA. The crust using laser ranging and satellites.

A key to the program is measuring, over a period of years, the precise relative positions of scientific base stations.

Israel will join 11 other countries conducting laser ranging activities with NASA in 20 locations. This global network is seen as having the capability to significantly improve the understanding of the

The origin of earthquakes in the Earth's interior and its dynamic processes.

> Under the agreement, the Israeli Space Agency will build a ground station in Israel and install laser, optical and electronic equipment equipment will be used to measure the distance between ground stations and specially equipped satellites.

> Under this procedure, a short, low-power laser pulse is beamed to a satellite, which reflects the light back to the station. The travel time of the pulse is measured to determine the distance to the satellite. When two or more stations track the same satellite, the distance

between the two stations can be measured with extreme precision. By acquiring data over a period of time, any change in distance can be determined, representing crustal movement between the stations.

The Israeli station will be transmitting to satellites such as NASA's Laser Geodynamics Satellites and France's Starlette

Fixed stations such as the one in Israel can also work with mobile laser tracking stations to map regional patterns of crustal deformation and to monitor the strains which accumulate at fault lines. The Israeli station will be part of a worldwide network expected to begin operations in 1985.

Correction

In the April 27 edition of the Roundup, it was incorrectly stated that Orbiter Vehicle 099, the Challenger, was named for an American research vessel of the 1870s. In fact, Challenger was named for a British vessel which cruised the Atlantic and Pacific Oceans during the 1870s performing oceanographic research, according to the History Office at NASA Headquarters. Information from the voyages of the HMS Challenger filled 50 volumes. The Roundup regrets the error.

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Space News Roundup



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Brian Welch Asst Editor.... Betty Johnson

People

Astronaut Terry J. Hart, who operated the Space Shuttle's mechanical arm to retrieve Solar Max during the STS 41-C



flight, has announced his plans to leave NASA effective June 15 to return to private industry. Hart, 37. joined NASA as an astronaut candidate in 1978. He will work in an engineering management position for the newly-formed Military and Government Systems Division of Bell Laboratories in Whippany, N.J. That division will produce large digital communications networks for government applications, Hart said

Several contractors in the JSC community were honored recently by the Space and Life Sciences Directorate for contributions to the first Spacelab mission aboard STS-9. Lockheed Management and Technical Services Co. employee Fred Amlee (formerly of General Electric) and GE employees Wayne Bertrand and Sumner Daniel were recognized for the design and development of the high rate demultiplexer interface and the simulated high rate demultiplexer. Ford Aerospace's Clifford Mason was recognized for design and development of the first two prototype units of the simulated remote acquisition unit used in payload development. MATSCO employees Clayton Benignus, David Campbell, Ron Cast, Curtis Flurry, Zahid Hussain and Douglas Warren were recognized for their contributions to the Spacelab flight support software system.

Dr. Wolf Kohn was named re-Robert E. Gross Award, the top technical honor given annually by the Lockheed Engineering and Management Services Company. Kohn is a Principal Engineer in the Simulation Department of the engineering

Houston Program Office. Since joining Lockheed in 1981, Kohn has been a key member of the simulation team supporting Shuttle activities at JSC. He was a lead engineer for developing the Remote Manipulator System Simulation Program used in the Shuttle Engineering Simulator and the Shuttle Dynamics Simulator and was also instrumental in incorporating the Hughes Rendezvous Radar model into the SES and SDS simulations.

After the 112th commencement exercises at Stevens Institute of Technology in Hoboken, N.J. this week. Astronaut Guy Bluford might have to start keeping an inventory of his titles. The Air Force Colonel, a veteran of STS-8, was awarded an honorary Doctor of Engineering degree before addressing the graduating class. Bluford earned his first Ph.D in aerospace engineering from the Air Force Institute of Technology in 1978.

Office Education student employee Angela Miller of Worthing High School has been selected for the JSC

Junior Fellowship Program this summer in recognition of her outstanding record over the past two years. Before she comes back to JSC this summer, however, Angela will be busy serving as valedictorian for her senior class. Miller began her employment here as a junior in the summer of 1982. She has worked for Willie E. Wright, Chief of the Space and Center Operations Procurement Division, since that time. Miller's record includes selection for the 1982 JSC Outstanding Summer Aid Award, the 1983 JSC Outstandcently as the 1984 recipient of the ing Office Education Student Award, and the 1984 Worthing High School Outstanding Office Education Student Award. Miller plans to attend the University of Houston this fall and major in electrical

A new addition to the JSC Visitor Center is helping public services employees explain satellite communications to visitors. An 11-foot satellite receiving dish, donated to NASA by the Intersat Corp., will be used to receive NASA Select direct from Satcom V during Shuttle missions. "As a teaching tool, it's much easier to explain to young people the benefits of the satellite," said Public Services Branch Chief Chuck Biggs. "Instead of hardlining NASA Select into Visitor Center monitors, we are now able to show visitors mission video beamed directly from space. It makes a much more vivid impression when they can see a wire leading from the monitor to the dish, and then see the dish pointing up to space.' An identical setup was also donated by Intersat Executive Vice President and Chairman of the Board Dave McClosky for the NASA exhibit at the World's Fair in New Orleans. Eventually, Intersat also plans to donate dishes to the Visitor Centers at Marshall and Kennedy.



Celebrities visiting JSC recently included worldfamous operatenor Placido Domingo and actress and model Barbi Benton. Domingo was in town performing "Tosca" with the Houston Grand Opera. Benton, here for an appearance at a local dinner theatre, toured the Center, posed in the Bldg. 9A Orbiter mockup and made Shuttle Program Manager Glynn Lunney's day during a visit to his office.



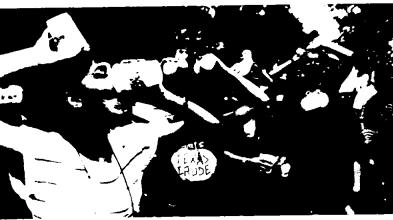
make an expense paid trip to the Kennedy Space Center in June to watch the launch of STS 41-D as Manned Flight Awareness honorees. Some 46 local contractors, 26 from Rockwell International, were also selected to view the launch as

Two of JSC's major spring events — the JSC picnic and the 6th Annual FOD Chili Cookoff — took place on backto-back weekends in May. At left, views from the Cookoff illustrate the relaxed atmosphere of the event, where chili was served out of a Hawaiian volcano by a very relaxed group from PAO, top; where the drinking of liquids was accompanied by much fanfare, center; and where members of the team from Crew Training practiced group activities. At right, scenes from the picnic include the crowd at the BBQ trough, top, employees of the Nova Building's Space Station Skunk Works milling about, center; and The Boss. JSC Director Gerald Griffin awaiting the inevitable as his secretary, Betty Sue Fedderson, takes a dip in the dunk tank. Her T-shirt reads "The Boss' Boss."

Thirteen JSC employees will a reward for outstanding accomplishments in the Shuttle Program. The MFA honoree program includes the expense paid trip, a tour of KSC and a reception at the KSC Visitor Information Center prior to the launch. This is the highest award provided to employees by

the MFA program. JSC employees honored were Glen Brace, Gladys Kirkland, Vincent Watkins, Harold Clancy, Charles Allton, Nick Jevas, Raymond Smith, Raymond Meyer, Lillian Hudson, Harold Clayton, Patricia Goldstein, James Powell and Nancy Fee.















Astronaut candidates

in civil engineering from the U.S. Air Force Academy in 1974 and his M.S. in mechanical engineering from the Massachusetts Institute of Technology in 1980. He is the son of Mr. and Mrs. Charles M. Lee of Viroqua. (Mission Specialist)

George D. Low: A spacecraft systems engineer with the Jet Propulsion Laboratory in Pasadena, California, Low resides in Pasadena. He was born Feb. 19, 1956 in Cleveland, Ohio. He earned a B.S. in physics from Washington and Lee University in 1978, a B.S. in mechanical engineering from Cornell University in 1980 and his M.S. in aeronautics and astronautics from Stanford University in 1983. He is the son of Mr. and Mrs.

George M. Low of Troy, New York. (Mission Specialist)

U.S. Navy Lt. Comdr. Michael J. McCulley: An operations officer with Attack Squadron Thirty-Five based aboard the U.S.S. Nimitz out of Oceana NAS, Virginia, Mc-Culley resides in Virginia Beach, Virginia. He was born Aug. 4, 1943 in San Diego, California, He earned his B.S. in metallurgical engineering from Purdue University in 1970 and his M.S. in metallurgical engineering from the same institution in 1970. He is the son of Mr. and Mrs. Gibson H. McCulley, both deceased. (Pilot)

U.S. Navy Lt. Comdr. William M. Shepherd: Commanding Officer of Special Boat Unit 20 at the Naval Amphibious Base at Little Creek,

Virginia, Shepherd resides in Virginia Beach. He was born July 26, 1949 in Oak Ridge, Tennessee. He earned a B.S. in aerospace engineering from the U.S. Naval Academy in 1971, an M.S. in mechanical engineering from the Massachusetts Institute of Technology in 1978 and an M.S. in ocean engineering from MIT in 1978. He is the son of George R. Shepherd (deceased) and Barbara Shepherd of Bethesda, Maryland. (Mission Specialist)

Dr. Ellen Shulman: A medical officer with the Medical Sciences Division at JSC, Shulman resides in Houston. She was born April 27, 1953 in Fayetteville, North Carolina. She earned a B.A. in geology from the State University of New

York at Buffalo in 1974 and an M.D. from Cornell University in 1978. She is the daughter of Dr. and Mrs. Melvin Shulman of Beechhurst. New York. (Mission Specialist)

Dr. Kathryn C. Thornton: A physicist with the U.S. Army Foreign Science and Technology Center, Dr. Thornton resides in Charlottesville, Virginia. She was born Aug. 17, 1952 in Montgomery, Alabama. She earned a B.S. in physics at Auburn University in 1974, an M.S. in physics from the University of Virginia in 1977 and a Ph.D. in physics from the same institution in 1979. She is the daughter of William C. Cordell of Hope Hull, Alabama and Elsie Cordell, deceased. (Mission Specialist)

Charles L. Veach: An aerospace

engineer and pilot with the Aircraft Operations Division at JSC, Veach resides in Houston. He was born Sept. 18, 1944 in Chicago. He earned his B.S. in engineering management from the U.S. Air Force Academy in 1966. He is the son of Mr. and Mrs. Marshall E. Veach of Honolulu, Hawaii. (Mission Spe-

U.S. Navy Lt. James D. Wetherbee: A test pilot at the Lemoore Naval Air Station in California, Wetherbee resides in Lemoore. He was born Nov. 27, 1952 in Flushing, New York. He earned his B.S. in aerospace engineering from the University of Notre Dame in 1974. He is the son of Mr. and Mrs. Dana A. Wetherbee of Huntington Station, New York. (Pilot)

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 AP 3 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 & Rentals

For lease: Pipers Meadow 3-2-2, fpl. dining, fan, miniblinds, \$575/mo., plus deposit. Call 488-0500 or 480-6516.

For sale: Condo, 1070 sq. ft., 2-2, fpl, all appliances, W/D, pool, tennis court. \$42,000, assume 11.2% fixed, Harris Co. Bond Mortgage, \$457/mo., \$3,800 equity. No maintenance. Call Linda at x4086 or 480-3771.

For lease: El Dorado time condo, 1-1-1, Fullsize W/D, icemaker, overlooks the pool, clubhouse with sauna and whirlpool, security system. \$370/mo. plus deposit. Call 483-4436, or 554-2538 after 6 p.m.

For lease: Friendswood, on the golf course, 3-2-2, 1,750 sq. ft., fpl, large yard, \$650/mo. Call 488-5660 x278 or 480-7326.

For lease: CLC, 1 BR condo, fans, microwave, fpl, kitchen appliances, W/D conn., tennis, exercise room. Call Jim Briley, 280-3625 or 488-7901 after 5

For lease w/option to buy: Forest Bend, 4-2-2, fpl, appliances, fenced yard, game room, \$550/mo. Rent to apply toward purchase. Call M. Smith

x6247 or 488-0462. For rent: For summer interns or coops, share 4 BR, 2 story house, Meadowgreen, available through Aug. 15, \$250/mo. including utilities. Call Dan or Barry 486-4420 x 237 or 480-7673.

For lease: House in Friendswood, 3-2, fenced yard, microwave, \$500/mo. plus deposit. Call 482-6816 or 483-3781.

For lease: Baywind II, 1 BR condo, fpl, kitchen appliances, W/D connections, pool, exercise room. Call Jim Wiltz at x5437 or 944-0451 after 5 p.m.

For lease: 2-3-2 house, lg. living room, fans, patio area, W/D conn. Call 484-2965 after 7 p.m.

For rent: Baywind I, 2-2 condo, fpl, W/D conn., new carpet and drapes, kitchen appliances, \$450/mo. plus \$200 deposit. Available after June 15. Call Mary Krusey x4568, after 6 p.m. call 482-1045.

For sale: Heritage Park, 3-2-2, 1484 sq. ft., microwave, fpl, fence, landscaped. 12% VA, \$63,000. Call Ron x4091 or 996-9734

For lease: El Dorado Trace, 2-1 condo, all appliances, security system, pool, ibhouse, \$375/mo. Call 937-7606 after

For sale: 101 acre farm, house furnishings, buildings, utilities, tractor and equipment, trail bikes, bass ponds, fruit and pecan trees, \$975/acre. Call Don x4606

For lease: 2 BR apartment at Barringer Knoll, W/D conn., fans, security locks, pool, storage area, \$400/mo. plus \$200 deposit. Call 334-4395 after 5 p.m.

For rent: House in Friendswood, Wedgewood Village, 3-2. Call Irene at 434-8232.

For rent: Lake Shore condo, 1 BR. fpl, W/D, fan, \$400/mo. plus \$200 deposit and a \$200 pet deposit. Call Shelly at 480-6742 after 5 p.m.

For lease or sale: Baywind I, 2-2-2, split floor plan, fpl, W/D conn., fans, built-in bookcase, \$400/mo. or \$43,000 with a 91/4% assumable loan. Call Roberta at x4331 or 486-9673 after 6

For lease: Seascape, 3-2-2, screened patio, access to pier and boat launch, tennis courts within walking distance. Available in mid-June, Call 474-3571.

For rent: Galveston Gulf front condo, completely furnished. Low rates. Call Nussman at 488-7762.

For lease: On Tranquility Lake, 1 BR, private lake with lighted jogging path. electronic security gates, washer and dryer, refrigerator w/icemaker, microwave, fpl, T.V. w/cable, pool. Call L. Webster at x6451 or 483-6451 or 554-6892

For rent: Galveston condo, 2 BR, sleeps 6, fully furnished, pick your week for \$298. Call Jim at x3751 or

For sale: League City 4-2-2, 2000 sq. ft. fpl, patio, many extras, mid/high \$80's. Call Jim at x3751 or 554-7677.

Cars & Trucks

1977 Dodge Surveyor Maxivan, selfcontained mini-motorhome, extras, sleeps 4, very clean, excellent condition. Call J. Kaltenbach at x6451 or 331-5751.

1972 Super Beetle, great condition, best offer. Call 488-2733 or 488-9005

1975 Mustang II, runs good, make an offer, call 481-3731 after 5 p.m.

1980 Firebird/Formula, turbo, a/c, ps/pb, tilt/cruise, AM/FM cassette, low miles, warranty policy, charcoal gray, must sell, \$6,500 or best offer. Call Ken at x2613 or 482-1717.

1982 Mercury Lynx, 4 dr hatchback, 15,000 miles, excellent condition, fully loaded, \$4,850. Call 999-1144 or 686-6156.

1966 Chevy Impala Super Sport, 327-V8, rusty but runs great, one owner, \$450 or best offer. Call Wade at x2981 or 488-1318

1975 Datsun Sta. Wag., rebuilt eng., rad, a/c, tires, \$900. Call Ralph at 483-5814.

1979 Chevy Chevette Scooter, hatchback, at, a/c, AM/FM, \$1,750. Call J.

Williams at x3338 or (409) 925-7163. 1966 Mustang, 200 CID six, moderate condition, \$1,300. Call Ed Whitocre at

x4614. 1966 Mustang, 289/3 speed, dual exhaust, damaged right front, runs good, excellent parts car, \$450. Call

x5975 or 488-3354. 1972 BMW 2002, a/c, AM/FM cassette, new-rear end assembly, transmission, shocks, exhaust, Weber carb, Call Tim

at 333-3871 between 10 and 12 p.m. 1975 Volvo 164, good condition, \$1,000, Call 474-7246.

1980 Chevy Chevette, low mileage, a/c, \$2,900. Call Richard at x5545 or

1975 Datsun 280Z, 2 passenger, excellent condition, automatic trans., a/c, AM/FM, gray ext/black int, new carpet and seatcovers, \$3,300. Call 482-3009 after 3 p.m.

1974 Audi 100, exceptionally clean, runs good, comes with spare engine, transmission and other assorted parts, \$1,100. Call 474-2906 after 5 p.m.

1978 Pinto Wag., a/c, AM radio, 4speed, good condition, \$1,375. Call Dale at x2321 or 486-8016 after 6 p.m. 1973 Dodge Maxivan, V8, ps, pb, a/c. Call 480-1340 after 5 p.m.

1978 Monte Carlo, black and silver, wire wheels, AM/FM cassette. Call x3681 or 534-2626 after 5 p.m.

1979 Lincoln Continental, Mark V, 2dr., tan w/vinyl top, 32,000 miles, one owner, perfect condition, \$7,500. Call

1977 Plymouth Volare, 4-dr., 6 cylinder, automatic, a/c, ps, pb, stereo w/tape player, good condition, \$2,000. Call Terry at x3606 or 482-8592.

1975 Imperial Le Baron, 2-dr., all options, air shocks, everything works, good condition, perfect to pull trailer or boat, 440 eng. Call 333-2974.

1973 Ford Courier, 64K, automatic, O/H, rebuilt head, not yet running, needs battery, brake job, Hynes manual,

\$200. Call 480-7182 after 6 p.m.

1969 Ford Galaxie XL, classic style, radial tires, power, a/c, new paint, new trans., small V8, regular gasoline, excellent condition. Call Gerry at x5226.

1981 Chevy Shortbed Pick-up, new motor and tires, \$700 down and take over the payments of \$249/mo. Call Pat at x2131 or 482-8233 after 5 p.m.

1967 Mustang, 289 cu. inch, V8, standard, runs good, good condition, \$1,950. Call John at x6171 or 488-2276.

1975 Mustang II, AM/FM 8-track, ps. 4 speed, needs some work, \$600. Call 554-2600 after 6 p.m.

1976 Triumph TR-7, red/black, automatic, a/c, pb, AM/FM, \$1,600 or best offer. Call Jerry x3458 or 480-8127 after 5.

1975 VW Scirocco, silver w/black, a/c, AM/FM, 4 speed, alloy wheels and radials, new inspection, very good condition, \$775. Call Bill at x2454 or 280-0028.

1972 Dodge Mini-motor home, 19 ft., self contained, \$3,975. Call Norm at x3643 or 488-0035.

1975 Ford Ranchero 351 M eng., ps. pb, very good condition, \$1,500. Call Cal at 480-1225 or 559-1655.

1968 VW Bug. as-is, autostick, blue, 120 KMI, fair-good condition, fix-up, \$800 negotiable. Call Fred at x3404.

Boats and Planes

6-gal. portable fiber-glass gas tank with gauge for under transom, \$25. Call 488-1326 after 4:30 p.m.

Boat hulls cleaned in the water. Sail smooth for less \$\$. Call 333-2814. 12 ft. aluminum boat, semi-vee gas

and electric motors, new trailer, \$700. Call Larry at 482-6534 after 5 p.m. 22 ft. Catalina, four sails including a

spinnaker, four h.p. outboard, no Alicia damage, \$6,000. Call Randy at x2918 or 333-4910 after 6 p.m.

RVs and Mobile Homes

1971 Pop-up Camper, sleeps 7, good condition, 3 new tires, \$850, 10x12 screen tent carrying bags in good condition, \$65. Call Larry at 471-4489

Audiovisual and Computers

Model Ar 40 solid state electronics ator system, \$ Color TV, 25" console, RCA, excellent condition, \$250. Call 333-2335.

Quad electraphonic stereo with builtin 8 track tape drive with turntable unit, \$200 or best offer. Call Mary at 482-1045 after 6 p.m.

Zenith color TV, 25" console, wood, \$150. Call Ed at x3676 or 474-5258 after 5 p.m.

Speakers, Essex 3-way, 12" woofer, 5" midrange, 2 1/2" tweeter, walnut cabinet 26" x 16.5" x 13.25", never used, Pair \$150. Call 480-9565

Stereo amplifier, Voice of Music, 20 watts, excellent condition \$20. Call 486-8266. Heath H19 Vt52 compatible terminal with green phosphor screen, \$350. High resolution 18 MH green phosphor monitor \$70.5.25 inch floppy case w/power supply \$20. Call Tom Harmon at x3511 or 480-6075 after 5:30

19" Teledyne color TV, needs work, make an offer. Call Janet at x5111.

Cycles

luggage rack, backrest, garaged, \$999. Call Fred at x3751 or 488-4114.

dition, \$300. Call 474-2906 after 5 p.m.

1981 Suzuki 450 GT, 4,500 miles. Go-cart, 5HP, live-axle, good con-

1978 Kawasaki KZ650, 6,100 miles, very nice, never dropped, stock except for Jardine mufflers, new rear tire. Call McDonald at 480-4862 after 5 p.m.

Minibike with 3.5 HP, Briggs and Stratton eng. and centrifugal clutch, \$50. Call 538-2082.

Household

5 HP large Chraftsman mower, 110V AC electric start, self-propelled, excellent condition, \$350. Call x3833 or

Space Shuttle cups, mugs, and glasses, complete sets available. Call Roger Zweig at x7474.

Microwave oven, GE top of the line with temp. probe, \$75. Call x5975 or 488-3354

Large L-shaped 10 1/2 x 8 modern sectional couch, beige with a touch of green, \$200. Call Dick Ramsell at

Electric heater, 15KW capacity with 2 stage thermostat, \$50. Call 474-3861. Sears microwave oven, \$200. Call Mary at 482-1045 after 6 p.m.

Burlington 3 pc. bedroom suite, triple dresser w/twin mirrors, nightstand, queen headboard, oak/oak veneer, excellent condition, \$750 or best offer. Call Dan at 486-4420 x237 or 480-7673.

Air conditioner, 110 volt outlet, works great, \$125 or best offer. Call 480-8800 x74 or 943-1790.

G.E. Microwave oven, like new, \$150. Call 333-2974.

Ward's riding lawnmower, 10 HP electric start, 5 speed, 38" cut, used less than 20 hours, \$850. Call Sandy Atkinson at 488-9005 x274

Moving garage sale, many household items, dehumidifier, color TV/stand, furniture, jewelry, tools, clothes, curtains, books, etc. Call Jim at x3751 or 554-7677.

Wanted

Used highchair, must be in excellent condition. Call Lois Walker at x5309. Camper top for long bed full size pickup, prefer molded fiberglass type. Call x3833 or 921-7212.

Will buy electric trains. Call Don at x2449.

Music

Bass guitar, amplifier and speaker, excellent condition, \$150. Call Anthony at 483-3581 or 486-0205 after 5 p.m.

Baldwin piano, acrosonic, excellent condition, appraised at \$1,000. Call Sharon at 996-1911 after 6 p.m.

Upright piano, good condition, \$350. Call x3820 or 482-3989 after 6 p.m. 1975 Fender acoustic guitar, w/

hardshell case excellent condition, \$250 or best offer. Call Todd at 486-0481 after 5 p.m.

Boxer puppies, AKC, champion sire and champion dam, male and female. Flashy Fawn-\$400 each, fawn with black masks are \$300 each. Call Linda at

Free Kittens, will be good mousers. Call x3820 or 482-3989 after 6 p.m.

Miscellaneous

Bedroom chandelier, hand painted with French leaf-scroll design with 5 lights, \$75. Call 488-1326 after 4:30.

Pinball machine, Gottlieb's Hot Shot. needs work, best offer. Call 333-2974.

Heathkit GR 295 TV, mediterranean cabinet, if problem with cabinet and parts, or you fix, \$75. Call Bill at 474-3863.

Four brand new Uniroyal Steeler tires, size P235/75 R15, \$250. Call Rogers at

Four B.F. Goodrich CLM 15 inch P225/B75-15 tires, \$10/each. Call G.T. Bauch at x6233 or 333-3382 after 5 p.m.

Houston residents interested in joining a van pool call Bob Jones x6251 or Tamyra Gailord at x2697.

Want to join or form a carpool from Hwy. 6/I-10 area to NASA for 7:30 a.m.-4:00 p.m. shift, Call George at x4927 or

Cookin' in the Cafeteria

Week of May 28 -June 1, 1984

Monday: Holiday

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

Wednesday: Seafood Gumbo; Liver & Onions, Baked Turbot, BBO Ham Steak, Baked Meatloaf w/Creole Sauce (Special); Beets, Brussels Sprouts, Green Beans, Whipped Potatoes.

Thursday: Beef & Barley Soup; Chicken & Dumplings, Corned Beef w/Cabbage, Smothered Steak w/Cornbread Dressing (Special); Spinach, Cabbage, Cauliflower au Gratin, Parsley Potatoes.

Friday: Seafood Gumbo; Pork Chop w/Yam Rosette, Creole Baked Cod, Tuna & Salmon Croquette (Special); Brussel Sprouts, Green Beans, Buttered Corn, Whipped Potatoes.

Week of June 4-8, 1984

Monday: Cream of Celery Soup; Braised Beef Ribs, Chicken a la King, Enchiladas w/Chili, Italian Cutlet (Special); Navy Beans, Brussel Sprouts, Whipped Potatoes. Standard Daily Items: Roast Beef, Baked Ham, Fried Chicken, Fried Fish, Chopped Sirloin. Selection of Salads, Sandwiches and

Tuesday: Beef & Barley Soup; Turkey & Dressing, Country Style Steak, Stuffed Cabbage (Special); Corn Cobbette, 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 & Onions, Deviled Crabs, Roast Beef w/Dressing, Tuna & Noodle Casserole (Special); Whipped Potatoes, Peas, Cauliflower.

★New at Bldg. 3

Every Wednesday we feature the Rueben -Corned Brisket, Swiss Cheese on a bed of Saurkraut, Poupon Mustard on Rye and a 1/4 Pickle—DELICIOUS! Monday and Thursday check out our French dip sandwich.