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NASA CONTRACTS LOCKHEED TO OPERATE WHITE SANDS

The NASA Johnson Space Center has signed a cost-plus-award fee contract with Lockheed Engineering and Management Services Company, Inc., of Houston for maintenance and operation of the Center's White Sands Test Facility at Las Cruces, New Mexico. Lockheed will operate test stands and laboratories, and provide facility maintenance.

The contract begins February 1, 1984 for one year with two negotiated option years, with an estimated three-year value of $53,193,323.

Other bidders for the contract were Northrop Services, Inc., Houston; Pan Am World Services, Inc., Cocoa Beach, Florida; and Kentron International, Inc., Dallas, Texas.
1983 HISPANIC EMPLOYMENT ACHIEVEMENT AWARD GIVEN TO JSC EMPLOYEE

Rafael Garcia, a graduate of the University of Puerto Rico, received the Hispanic Employment Program Achievement Award for 1983 in Houston, Texas. Garcia's mother, Mrs. Haydee Garcia of San Lorenzo, PR, attended the ceremony held at the NASA/Lyndon B. Johnson Space Center (JSC) December 6, 1983, as the guest of American Airlines.

This award, sponsored by the Houston Federal Executive Board, is presented annually to the individual who has made the most significant contribution toward furthering the goals of the Hispanic Employment Program among Federal agencies in the Houston area.

Garcia, an aerospace engineer at JSC, was recognized for his outstanding engineering skills in support of the Space Shuttle Program and for his personal interest in promoting Hispanic career development efforts at the Space Center.

Garcia joined the staff at JSC immediately following his graduation in 1979. He is assigned to the Experiments and Operations Support Division as an engineering specialist in mechanical system design with responsibility for development of spacecraft flight and experiment payload hardware. He has been involved in a variety of design projects, including design of a system for measuring payload bay structural deflections on the Orbiter vehicle and provision of a complete Shuttle Pallet Satellite (SPAS) Camera System for the Space Shuttle, both of which have flown on the Space Shuttle.

In his efforts to promote Hispanic career development, in a recent trip to Puerto Rico Garcia made presentations to junior and senior high school classes, explaining NASA activities and utilizing slides, movies and printed materials. He has also served as a subject for a NASA Public Affairs Office film which illustrates Hispanic career opportunities. In addition he contacts prospective Puerto Rican graduates concerning employment with NASA and actively seeks out and assists Puerto Rican cooperative education trainees and interns employed at JSC.

-end-
Flight control of Mission 41-B, the tenth Space Shuttle mission, will closely resemble that of previous missions with the addition of a special position to support the two extravehicular activities.

The additional flight controller will operate with the call sign, EVA, and will be responsible for monitoring the status of the Manned Maneuvering Unit and Extravehicular Mobility Unit, and for managing timeline activities to assure test objectives are achieved.

Lead flight director for Mission 41-B is Harold M. Draughon, who was lead flight director on STS-8 and STS-6, entry team flight director on STS-3 and STS-4, and backup flight director on STS-2. As lead for 41-B, he has additional responsibilities for prelaunch planning and coordination, as well as other leadership and management duties during the on-orbit phases of the mission.

Other flight directors include Gary E. Coen, ascent and entry phases; Randy Stone, orbit 1 team; Lawrence S. Bourgeois, planning team; and John Cox for the EVAs. All are veterans of previous Shuttle flights.

Specific console positions in the MOCR, their call signs and functions are:

Flight Director (Flight) — Has overall responsibility for the conduct of the mission and real-time decision-making.
Capsule Communicator (CAPCOM) — Communicates with the flight crew on orbit.

Trajectory Officer (Trajectory) — Monitors on-course, on-time, position and velocity information.

Data Processing Systems Engineer (DPS) — Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.

Extravehicular Activities Officer (EVA) — Evaluates status of EVA hardware and monitors timeline activities to evaluate accomplishment of test objectives.

Environmental, Consumables and Mechanical Systems Engineer (EECOM) — Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, transducers and lighting.

Remote Manipulator System, Mechanical and Upper Stage Systems Officer (RMU) — Monitors mechanical systems such as auxiliary power units, hydraulic systems, payload bay doors, vents and vent doors and Remote Manipulator System.

Flight Dynamics Officer (FIDO) — Responsible for monitoring powered phase of the mission, orbital events and trajectories from the standpoint of mission success. Monitors vehicle energy levels during entry.

Guidance Officer (Guidance) — Monitors onboard navigation and onboard guidance software.

Flight Surgeon (Surgeon) — Responsible for advising the flight director of the crew's health.

Booster Systems Engineer (Booster) — Responsible for monitoring the vehicle's main engine and solid rocket booster propulsion systems during the ascent phase of the flight, and monitoring the purging system before entry.

Propulsion Systems Engineer (Prop) — Responsible for monitoring the status of the reaction control and orbital maneuvering systems engines during all phases of flight.
Guidance, Navigation and Control Systems, Engineer (GNC) — Responsible for all inertial navigational systems hardware, radio navigation systems hardware, radio navigation aids and digital autopilot systems.

Ground Control (GC) — Responsible for configuring for acquisition or loss of signal and status of ground support equipment.

Integrated Communications Systems Engineer (INCO) — Responsible for onboard communications system configuration.

Operations Integration Officer (OIC) — Responsible for detailed implementation of mission control procedures and for coordination and controlling the group displays and clocks in the control center.

Flight Activities Officer (FAO) — Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) — Coordinates all payload activities with the remote POCC.

Personnel assignments to Mission 41-B flight control teams follow:
FUNCTION

Flight Director
Gary E. Coen

Capsule Communicator
Guy Gardner

Ground Controller
N. R. Talbott

Surgeon
James Vanderploeg

Operations Integration Officer
James E. Wallace

Flight Dynamics Officer
Brad H. Sweet

Integrated Communications Systems Officer
Robert E. Castle, Jr.

Propulsion Systems Officer
Wayne Hale

Remote Manipulator System Mechanical Systems and Upper State Systems Officer
Gregg Ulrich

Data Processing Systems Officer
Andrew F. Algate

Environmental, Consumables and Mechanical Systems Engineer
Jimmy S. McLendon

Guidance, Navigation and Control Systems Officer
James C. Adamson

Guidance Officer
Willard Presley

Booster Systems Engineer
Jenny M. Howard

ASCENT

ENTRY

Gary E. Coen
John Blaha

Julius M. Conditt
Ellen L. Shulman

James E. Wallace
Gregory T. Oliver

Robert E. Castle, Jr.
Wayne Hale

Gregg Ulrich
Andrew F. Algate

Jimmy S. McLendon
James C. Adamson

Mason Lancaster
Jenny M. Howard

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<th>PLANNING</th>
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<td>Flight Director</td>
<td>Randy Stone</td>
<td>Harold Draughon</td>
<td>Lawrence S. Bourgeois</td>
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<tr>
<td>Capsule</td>
<td>John Blaha</td>
<td>Mary Cleave</td>
<td>Guy Gardner</td>
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<tr>
<td>Communicator</td>
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<tr>
<td>EVA</td>
<td></td>
<td>Terry Neal</td>
<td></td>
</tr>
<tr>
<td>Ground Controller</td>
<td>Julius M. Conditt</td>
<td>John H. Wells</td>
<td>C. Daniels</td>
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<tr>
<td>*Surgeon</td>
<td>James Vanderploeg</td>
<td>James Vanderploeg</td>
<td>James Vanderploeg</td>
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<tr>
<td>Operations</td>
<td>James E. Wallace</td>
<td>S. G. VanHorn</td>
<td>Wayne B. Boatman</td>
</tr>
<tr>
<td>Integration Officer</td>
<td>Michael A. Brekke</td>
<td>Michael W. Hawes</td>
<td>Debbie T. Pawkett</td>
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<tr>
<td>Payloads</td>
<td>Ronald C. Epps</td>
<td>Ronald H. Cohen</td>
<td>Edward P. Gonzales</td>
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<tr>
<td>Flight Dynamics Officer</td>
<td>Robert E. Castle, Jr.</td>
<td>Harold Black</td>
<td>Richard W. Rodriguez</td>
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<tr>
<td>Integrated Communications</td>
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<tr>
<td>Systems Officer</td>
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<tr>
<td>Propulsion Systems Officer</td>
<td>N. Wayne Hale</td>
<td>Charles D. Young</td>
<td>Ronald Dittemore</td>
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<tr>
<td>Remote Manipulator</td>
<td>Gregg Ulrich</td>
<td>William D. Reeves</td>
<td>Edward J. Ripma</td>
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<tr>
<td>System Mechanical &amp; Upper Stages</td>
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<tr>
<td>Systems Officer</td>
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<tr>
<td>Data Processing Systems Officer</td>
<td>Andrew F. Algate</td>
<td>Lizabeth A. Cheshire</td>
<td>Gregory J. Harbaugh</td>
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<tr>
<td>Environmental Consumables</td>
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<td>R. John Rector</td>
<td>Charles T. Holliman</td>
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<tr>
<td>&amp; Mechanical Systems Engineer</td>
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<tr>
<td>Guidance, Navigation &amp;</td>
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<td>Harold Hardwick</td>
<td>Charles K. Alford</td>
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<tr>
<td>Control Systems Officer</td>
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<tr>
<td>Guidance Officer</td>
<td>James C. Adamson</td>
<td>Gayle K. Weber</td>
<td>Thornton E. Dyson</td>
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<tr>
<td>Flight Activities Officer</td>
<td>Willard Presley</td>
<td>Ben E. Ferguson</td>
<td>Robert L. Schaf</td>
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<tr>
<td>* On call</td>
<td>Charles R. Knarr</td>
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# # #
FORT SMITH NATIVE RECEIVES NASA AWARD AND PROMOTION

(HOUSTON)--Richard Fitts, a native of Fort Smith, Arkansas, was honored recently with a NASA Exceptional Service Award, one of the Space Agency's highest honors, and a promotion to Flight Director within the Mission Operations Group at the Johnson Space Center in Houston.

Fitts, who has served with NASA's spaceflight control team since the early 1970s, was honored for his contribution to the first Space Shuttle mission in April, 1981. During that flight, he served as ascent Guidance, Navigation and Control (GNC) Officer during launch, and was responsible for monitoring the performance of the spacecraft from a console in NASA's Mission Control Center.

In addition, with a promotion announced recently, Fitts has moved up to the ranks of NASA's Flight Directors, who are responsible for the operational conduct of a Shuttle mission during their eight-hour, around the clock shifts in Mission Control. Flight Directors can be compared to an orchestra conductor in the sense that during their shifts they are the focal point for a large and complex operation, where many groups of experts
funnel information upwards until it finally reaches the apex--the Flight Director--where decisions as to conduct of the mission, spacecraft operations and how to react to system malfunctions are made.

Fitts attended St. Anne's Academy in Ft. Smith and graduated in 1971 from the University of Arkansas, Fayetteville, with a BS in physics. He also earned a Masters Degree in electrical engineering from the University of Arkansas.

Fitts also served as GNC during the Skylab program during the early 1970s, as well as for Shuttle missions 1, 2 and 3. Since 1982 he has been head of the Propulsion Systems Section, Mission Operations Directorate, at the Johnson Space Center.

He is the son of Bill and Barbar Fitts, 2915 Barry St., Fort Smith.
51-D, 61-D CREW ANNOUNCEMENTS

The crew of a 1985 Space Shuttle mission, and a partial crew for a 1986 mission, have been announced by the National Aeronautics and Space Administration.

The flights are mission 51-D, scheduled for launch in February 1985, and 61-D forecasted for January 1986.

Commander of 51-D will be Brewster H. Shaw, Jr. (Lt. Colonel, USAF), 38, of Cass City, Mich. Shaw was pilot of the orbiter, Columbia on STS-9, the first Spacelab mission flown in November and December 1983.

Shaw's crew will consist of Bryan D. O'Connor (Major, USMC), 37, of Twentynine Palms, Calif., pilot; and Mission Specialists Mary Cleave, Ph.D., 36, Southampton, N.Y.; Sherwood C. Spring (Major, USA), 39, Hartford Conn.; and Jerry L. Ross (Major, USAF), 35, Crown Point, Ind.

Mission 51-D is to be the 21st Space Shuttle operation and the ninth flight of the orbiter, Challenger. Principal objectives of the six-day flight will be deployment of a SYNCOM communications satellite, and retrieval of the free-flying Long
Duration Exposure Facility. The LDEF is scheduled to be deployed in April on mission 41-C, and contains experiments which require long-term exposure to the space environment.

Mission specialists for mission 61-D will be James P. Bagian, M.D., 31, of Philadelphia; and Rhea Seddon, M.D., 36, of Murfreesboro, Tenn. John M. Fabian (Colonel, USAF), 44, of Pullman, Wash., will fly as one of three pilots on 61-D.

NASA intends to have three-member crews share flight deck responsibilities on future Spacelab-type missions. The commander and another pilot for 61-D will be announced at a later date. Mission specialists are frequently selected earlier than flight crews since their training is more specialized and requires more time.

Fabian is an Air Force pilot with more than 3,500 hours of flying time. He flew as a mission specialist on STS-7 in July 1983, and is also scheduled to be aboard mission 51-A in October as a mission specialist. Dr. Seddon is also scheduled to fly on mission 41-F in August. Mission 61-D will be Dr. Bagian's first space flight.

Mission 61-D will be the fourth Spacelab flight and will focus on experiments in the field of life sciences for its seven days in space. It will be the ninth flight of the orbiter, Columbia.

# # #
NASA BEGINS SCREENING ASTRONAUT APPLICANTS

The first 20 applicants to be interviewed for possible selection as Space Shuttle astronaut candidates will report to the NASA Johnson Space Center February 12 for a week of interviews and medical evaluations. The group includes 13 mission specialist and 7 pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups of 20.

NASA will select two categories of astronaut candidates—pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984, and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the first 20 applicants selected for interview are:
Maj. James C. Adamson, U.S. Army
Born in Warsaw, NY. Currently residing in Seabrook, TX. On military detail to the Johnson Space Center.

John M. Anthony, Ph.D.
Born in Naples, TX. Currently residing in Richardson, TX. Employed by Texas Instruments, Inc., Dallas, TX.

Born in Halstead, KS. Currently residing in Edwards, CA. Stationed at Edwards AFB, CA.

Gerald O. Bolme, Ph.D.
Born in Fargo, ND. Currently residing in Los Alamos, NM. Employed by Los Alamos National Laboratory, Los Alamos, NM.

Philip D. Bridges, Ph.D.
Born in Paragould, AR. Currently residing in Starkville, MS. Employed by Mississippi State University, Mississippi State, MS.

Lt. Cdr. David R. Bryant, U.S. Navy
Born at Castle AFB, CA. Currently residing in Oxnard, CA. Stationed at U.S. Naval Air Station, Point Mugu, CA.

Maj. Kenneth D. Cameron, U.S. Marine Corps
Born in Cleveland, OH. Currently residing in Patuxent River, MD. Stationed at Marine Aviation Detachment, U.S. Naval Air Station, Patuxent River, MD.

-more-
Cdr. Manley L. Carter, Jr., U.S. Navy
Born in Macon, GA. Currently residing in California, MD. Currently attending Naval Test Pilot School, Patuxent River, MD.

C. Michael Foale, Ph.D.

Capt. Sidney M. Gutierrez, U.S. Air Force
Born in Albuquerque, NM. Currently residing in Edwards, CA. Stationed at Edwards AFB, CA.

M. Stephen Haswell, Ph.D.
Born in Houston, TX. Currently residing in San Antonio, TX. Employed by Brooks AFB, San Antonio, TX.

Born in Rochester, NY. Currently residing in Edwards, CA. Stationed at Edwards AFB, CA.

Maj. Thomas M. Jones, U.S. Air Force
Born in Chicago, IL. Currently residing in Kaiserslautern, West Germany. Stationed at Sembach AB, West Germany.

Robert M. Kieckhefer, Ph.D.
Born in Evanston, IL. Currently residing in Sugarland, TX. Employed by Gulf Research & Development Co., Houston, TX.
Elizabeth C. Kisenwether, Ph.D.
Born in Alton, IL. Currently residing in Crofton, MD.
Employed by HRB-Singer, Inc., Lanham, MD.

Born in Newport, RI. Currently residing in Virginia Beach, VA. Stationed at U.S. Naval Air Station, Norfolk, VA.

Ellen L. Shulman, M.D.
Born in Fayetteville, NC. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

Born in Atlanta, GA. Currently residing in Edwards AFB, CA. Stationed at Edwards AFB, CA.

Lt. James D. Wetherbee, U.S. Navy
Born in Flushing, NY. Currently residing in Hanford, CA. Stationed at U.S. Naval Air Station, Lemoore, CA.

Audrey A. Wright, Ph.D.
Born in Amsterdam, Holland. Currently residing in Encinitas, CA. Employed by Scripps Institution of Oceanography, La Jolla, CA.

# # #
IN FLIGHT REFUELING TESTS SUSPENDED

Inflight refueling tests on the NASA 747 Shuttle Carrier Aircraft were suspended this week following a series of preliminary flights intended to check potential buffeting and turbulence levels on the specially equipped wide bodied jet. NASA uses the 747 to piggy back Space Shuttle orbiters between landing and launch sites after missions.

Because the carrier aircraft with its orbiter cargo is required to travel at low altitude and avoid bad weather enroute, it is not possible to travel long distances without frequent stops. The Agency is, therefore, hoping to develop airborne refueling techniques that will reduce the number of landings required to travel coast to coast or to international locations.

The preliminary tests involved flying the 747 with the orbiter not attached behind two tanker aircraft -- first a KC-135 and then a KC-10. The heavy turbulence encountered in the vortices of the tanker aircraft has produced minor cracks in the tail of the 747. While the cracks are of no serious concern and will not affect use of the 747 to transport orbiters to the launch site, NASA has decided to suspend the flight tests and to investigate an alternate refueling technique which allows the 747 carrier to fly in front of the tanker aircraft. If the alternate approach proves feasible it probably can be adopted with little or no additional flight testing with the carrier aircraft.

# # #
NOTE TO EDITORS

A postflight news conference with Space Shuttle mission 41-B astronauts Vance D. Brand, Robert L. Gibson, Bruce McCandless II, Ronald E. McNair and Robert L. Stewart, will be held at 1 p.m. Tuesday, February 21, in the Johnson Space Center Newsroom, Bldg. 2, Room 135.

# # #
51-K CREW ANNOUNCEMENT

A partial list of crew members for the Spacelab D-1 mission (STS Flight 51-K) has been released by the National Aeronautics and Space Administration.

This announcement names three crew members of an eventual eight-person crew. Mission specialists for 51-K will be Bonnie Dunbar, Ph.D., a native of Sunnyside, Washington, and Guion S. Bluford, Jr. (Colonel, USAF), of Philadelphia, Pennsylvania. One of the three-member flight deck crew will be pilot Stephen E. Nagel (Major, USAF), Canton, Illinois. NASA plans to have three-member crews share flight deck responsibilities on future Spacelab-type missions.

NASA will name the 51-K commander and another pilot at a later date, and announcement of the European crew members will also be made at a later date.

Spacelab D-1 is a dedicated mission purchased by the Federal Republic of Germany. It will involve significant materials science and life science experiments. This mission, scheduled
for launch in September 1985, will be the third flight of the orbiter Atlantis and the fourth flight of Spacelab.

The 51-K mission will be the second for Bluford, who served as mission specialist on STS-8 in August 1983. Nagel has also been selected to fly as a mission specialist on STS Flight 51-A in October 1984.

Both Bluford and Nagel were selected to the astronaut corps in 1978. The mission will be the first for Dunbar, a member of the group of 19 astronauts selected by NASA in May 1980.

# # #
NASA SCREENS SECOND GROUP OF ASTRONAUT APPLICANTS

The second group of 20 applicants to be interviewed for possible selection as Space Shuttle astronaut candidates will report to the NASA Johnson Space Center February 19 for a week of interviews and medical evaluations. The group includes 14 mission specialist and six pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups of 20.

NASA will select two categories of astronaut candidates—pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984 and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the second 20 applicants selected for interview are:

- more -
Lt. Herbert H. Bowden, Jr., USN
Born in Kodiak, AK. Currently residing in San Diego, CA. Stationed at Naval Air Station, North Island, San Diego, CA.

Steven R. Bratt
Born in New York, NY. Currently residing in Cambridge, MA. Employed by the Massachusetts Institute of Technology, Cambridge, MA.

Maj. Robert D. Cabana, USMC
Born in Minneapolis, MN. Currently residing in Lexington Park, MD. Stationed at Naval Air Test Center, Patuxent River, MD.

Lt. Col. John H. Casper, USAF

Josephine B. Cimino, Ph.D.
Born in Lorain, OH. Currently residing in Altadena, CA. Employed by the Jet Propulsion Laboratory, Pasadena, CA.

Maj. Tomas Coronado, U.S. Army
Born in Laredo, TX. Currently residing in San Antonio, TX. Stationed at Brooke Army Medical Center, San Antonio, TX.

Maj. James C. Dunn, USAF
Born in New Brunswick, NJ. Currently residing in Lancaster, CA. Stationed at Edwards Air Force Base, CA.

-more-
Margaret A. Frerking, Ph.D.
Born in Jamaica, NY. Currently residing in Culver City, CA. Employed by the Jet Propulsion Laboratory, Pasadena, CA.

Robert J. Hansman, Jr., Ph.D.
Born in Brockton, MA. Currently residing in Cambridge, MA. Employed by the Massachusetts Institute of Technology, Cambridge, MA.

Lt. Commander Douglas G. Henry, USN
Born in Alexandria, VA. Currently residing in Ridgecrest, CA. Stationed at the Naval Weapons Center, China Lake, CA.

Capt. Thomas M. Humes, USAF
Born in Mineola, NY. Currently residing in Niceville, FL. Stationed at Eglin AFB, FL.

Marsha S. Ivins
Born in Baltimore, MD. Currently residing in Webster, TX. Employed by NASA-Johnson Space Center, Houston, TX.

Capt. William J. Jabour, USAF
Born in Mineola, NY. Currently residing in Palmdale, CA. Stationed at Edwards AFB, CA.

Lt. Miles R. Palmer, USAF
Born in Roby, TX. Currently residing and stationed at Kirtland AFB, NM.

Charles A. Parlier
Born in Reedley, CA. Currently residing in Mesa, AZ. Employed by Hughes Helicopters, Inc., Mesa, AZ.
Mary L. Phillips, Ph.D.
Born in Corvallis, OR. Currently residing in Toronto, Ontario, Canada. Employed by the University of Toronto.

Maj. Richard H. Priest, USMC
Born in San Antonio, TX. Currently residing in Great Mills, MD. Stationed at the Naval Air Test Center, Patuxent River, MD.

Steven W. Squyres, Ph.D.
Born in Woodbury, NJ. Currently residing in Mountain View, CA. Employed by NASA-Ames Research Center, Moffett Field, CA.

Maj. Patrick K. Talty, USAF
Born in Chicago, IL. Currently residing in Palmdale, CA. Stationed at Edwards AFB, CA.

Anna M. Tavormina, Ph.D.
Born in Darby, PA. Currently residing in Hawthorne, CA. Employed by The Aerospace Corporation, Los Angeles, CA.

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NOTE TO EDITORS

Preflight background briefings and a news conference with Space Shuttle Mission 41-C astronauts will be held Thursday and Friday, March 8-9, at Johnson Space Center, Houston.

Background briefings will begin at 1 p.m. Thursday with a mission overview by lead flight director, Jay Greene. Subsequent briefings will cover the Long Duration Exposure Facility and Solar Max repair activities.

Mission Commander Bob Crippen, pilot Dick Scobee, and mission specialists Terry Hart, Jim van Hoften and George Nelson, will be available at a news conference at 9 a.m. Friday.

Briefings will be held in the JSC News Center, Bldg. 2, Room 135.

# # #
Government, academic and industry leaders will meet in Houston Tuesday, Feb. 28, to discuss opportunities and future directions in the commercial uses of space.

The meeting at the Houston Petroleum Club is sponsored by NASA, Texas Medical Center, Inc., the National Academy for Public Administration, the Space Foundation and the Houston Chamber of Commerce.

Gerald D. Griffin, director of the NASA Johnson Space Center, will be the featured luncheon speaker. Top officials in government, space-related industries and financial institutions also will address the approximately 100 invited participants at the conference.

Materials processing including pharmaceuticals manufacturing, commercial use of a space station and privately provided launch and on-orbit services will be among topics discussed.
"Houston holds exceptional promise for space commerce because of the proximity of the Johnson Space Center, the resources of ex-NASA executives, universities, the aerospace industry, Texas Medical Center, and the particular dynamics of the Houston financial climate," said Richard S. Johnston, vice president for program development at Texas Medical Center, Inc., and one of the principal organizers of the meeting.

Similar conferences directed by the National Academy for Public Administration are scheduled April 10 in St. Louis and April 26 in Boston.

Commercial use of space is one of the three initiatives proposed for NASA by the President.

# # #
NASA AWARDS ROCKWELL LAUNCH SUPPORT CONTRACT

The NASA Johnson Space Center, Houston has signed a cost-plus-award fee contract with Rockwell International Corporation, Downey, California for launch support activities at NASA Kennedy Space Center, Florida.

Valued at $23,577,000, the contract provides for Rockwell corporate memory and continuity for the JSC Design Center at Kennedy. Rockwell is the builder of the Space Shuttle Orbiter.


# # #
NASA SCREENS THIRD GROUP OF ASTRONAUT APPLICANTS

The third group of applicants to be interviewed for possible selection as Space Shuttle astronaut candidates will report to the NASA Johnson Space Center February 26 for a week of interviews and medical evaluations. The group includes 16 mission specialist and six pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups.

NASA will select two categories of astronaut candidates—pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984 and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the third group of applicants selected for interview are:

-more-
Laura H. Allen, Ph.D.
Born in Clayton, GA. Currently residing in Menlo Park, CA. Employed by Stanford University, Stanford, CA.

John L. Benson, Ph.D.
Born in San Antonio, TX. Currently residing in Houston, TX. Employed by Innovatum, Inc., Houston, TX.

Capt. Walter L. Bogart, U.S. Army
Born in Hollywood, CA. Currently residing in West Point, NY. Stationed at Keller Army Hospital, West Point, NY.

Capt. Mark N. Brown, USAF
Born in Valparaiso, IN. Currently residing in Pearland, TX. Detailed to the Johnson Space Center.

Warren L. Eastman
Born in Oak Pak, IL. Currently residing in Houston, TX. Employed by McDonnell-Douglas, Houston, TX.

Lt. Commander Kenneth K. Grubbs, USN
Born in Spartanburg, SC. Currently residing in Lemoore, CA. Stationed at Naval Air Station, Lemoore, CA.

Lt. Commander Steven A. Hazelrigg, USN
Born in San Antonio, TX. Currently residing in Oak Harbor, WA. Stationed at Naval Air Station, Whidby Island, WA.

Lt. Heidi Kapanka, USN
Born in Bronxville, NY. Currently residing in Cadiz, Spain. Stationed at Rota Naval Base, Spain.
Glen G. Larson  
Born in Rawlins, WY. Currently residing in Chesterfield, MO. Employed by McDonnell Aircraft Company, St. Louis, MO.

Capt. Randall S. Mainquist, USAF  
Born in Osmond, NE. Currently residing in Niceville, FL. Stationed at Eglin AFB, FL.

Lt. William J. McCarthy, USN  
Born in Teaneck, NJ. Currently residing in Lexington Park, MD. Stationed at Naval Test Pilot School, Patuxent River, MD.

Lt. William F. Miller, USN  
Born in Boston, MA. Currently residing in San Diego, CA. Stationed at Naval Air Station, Miramar, San Diego, CA.

Thomas P. Moore, Ph.D.  
Born in Beaver Falls, PA. Currently residing in Houston, TX. Employed by Technology, Inc., Houston, TX.

James H. Morison, Ph.D.  
Born in Berkeley, CA. Currently residing in Seattle, WA. Employed by the University of Washington, Seattle, WA.

Maj. Michael I. Mott, USMC  
Born in Nashville, TN. Currently residing in Springfield, VA. Stationed at Marine Corps Development and Education Command, Quantico, VA.

-more-
James H. Newman, Ph.D.
Born in the Trust Territory of the Pacific Islands.
Currently residing in Houston, TX. Employed by Rice University, Houston, TX.

Lt. Col. Durwood W. Ringo, USMC
Born in Louisville, KY. Currently residing in Lexington Park, MD. Stationed at Naval Air Station, Marine Aviation Detachment, Patuxent River, MD.

Lt. Commander William M. Shepherd, USN
Born in Oak Ridge, TN. Currently residing in Virginia Beach, VA. Stationed at the Naval Amphibious Base, Little Creek, VA.

Capt. David A. Wagie, USAF
Born in Whitewater, WI. Currently residing in West Lafayette, IN. Stationed at Wright-Patterson AFB, OH.

Capt. Donald L. Weiss, USMC
Born in Syracuse, NY. Currently residing in Camarillo, CA. Stationed at Naval Air Station, Marine Aviation Detachment, Point Mugu, CA.

Capt. James H. Wisneski, USAF
Born in Bristol, CT. Currently residing in Lancaster, CA. Stationed at Edwards AFB, CA.

David A. Wolf, M.D.
Born in Indianapolis, IN. Currently residing in Houston, TX. Employed by Technology, Inc., Houston, TX.

# # #
CONFERENCE TO HIGHLIGHT SPACE BIOPROCESSING

A conference at the Woodlands March 7 and 8 will highlight opportunities for research and production of biological materials in space.

About 100 attendees, mostly biomedical researchers, government and business representatives are expected for the meeting at the Woodlands Conference Center at the Woodlands Inn just north of Houston.

NASA, the American Institute of Aeronautics and Astronautics, and Texas Medical Center, Inc. are sponsors of the event which aims to bring to the business and academic communities an awareness of the potential uses of space for bioprocessing research and production.

The conference follows by one week a similar meeting in Houston on the commercial uses of space aimed primarily at the business community.
Gerald D. Griffin, director of the NASA Johnson Space Center in Houston will speak to the group in the morning March 7. Astronaut Owen Garriott, a mission specialist on the international Spacelab 1 flight in late 1983, will describe the space environment.

Other speakers will review recent research in materials processing in space and explain the government's role in encouraging private industry's involvement in space ventures.

# # #

March 2, 1984
NASA SCREENS FOURTH GROUP OF ASTRONAUT APPLICANTS

The fourth group of applicants to be interviewed for possible selection as Space Shuttle astronaut candidates reported to the NASA Johnson Space Center March 4 for a week of interviews and medical evaluations. The group includes 16 mission specialist and six pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups.

NASA will select two categories of astronaut candidates--pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984 and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the fourth group of applicants selected for interview are:

- more -
Major Frank T. Birk, USAF
Born in Annapolis, MD. Currently residing in Lancaster, CA. Stationed at Edwards AFB, Ca.

William C. Brown
Born in San Angelo, TX. Currently residing in League City, TX. Employed by NASA-Johnson Space Center.

Capt. Michael R. U. Clifford, U.S. Army
Born at Norton AFB, CA. Currently residing in Newburgh, NY. Stationed at U. S. Military Academy, West Point, NY.

Lt. Commander Robert W. Dubeau, USN
Born in Rutland, VT. Currently residing in Alexandria, VA. Stationed at Department of the Navy, Washington, DC.

Linda M. Godwin, Ph. D.
Born in Cape Girardeau, MO. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

Capt. Lloyd B. Hammond, Jr., USAF
Born in Savannah, GA. Currently residing in Edwards, CA. Stationed at Edwards AFB, CA.

Richard J. Hieb
Born in Jamestown, ND. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.
James E. Hubbard, Jr., Ph.D.
Born in Danville, VA. Currently residing in Cambridge, MA. Employed by Massachusetts Institute of Technology, Cambridge, MA.

Tamara E. Jernigan
Born in Chattanooga, TN. Currently residing in Mountain View, CA. Employed by NASA-Ames Research Center, Moffett Field, CA.

Charles R. Justiz
Born in Miami, FL. Currently residing in Seabrook, TX. Employed by NASA-Johnson Space Center.

Capt. Mark C. Lee, USAF
Born in Viroqua, WI. Currently residing in Layton, UT. Stationed at Hill AFB, UT.

Lt. Commander Jonathan T. Malay, USN
Born in Littleton, NH. Currently residing in New London, CT. Stationed at Naval Underwater Systems Center, Newport, RI.

Capt. Carl J. Meade, USAF
Born at Chanute AFB, IL. Currently residing in Lancaster, CA. Stationed at Edwards, AFB, CA.

Maj. Randall G. Oliver, U. S. Army
Stephen S. Oswald

James R. Simons
Born in Glasgow, MT. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

Kathleen M. Sullivan, Ph.D.
Born in St. Louis, MO. Currently residing in Ann Arbor, MI. Employed by University of Michigan, Ann Arbor, MI.

Richard J. Terrile, Ph.D.
Born in New York, NY. Currently residing in Pasadena, CA. Employed by Jet Propulsion Laboratory, Pasadena, CA.

Lt. Kevin J. Thomas, USN
Born in Newark, NJ. Currently residing in Virginia Beach, VA. Stationed with Carrier Group Eight, FPO, New York.

Lt. Stephen D. Thorne, USN
Born in Frankfort-on-Main, West Germany. Currently residing in Lexington Park, MD. Attending Naval Post Graduate School, Monterey, CA.

Maj. Thomas L. Vollrath, U.S. Army
Born in Indianapolis, IN. Currently residing in Seabrook, TX. Detailed to NASA-Johnson Space Center.
Virginia A. Whitelaw, Ph.D.

Born in Detroit, MI. Currently residing in Warrenville, IL. Employed by Bell Laboratories, Naperville, IL.

# # #
LUNAR AND PLANETARY CONFERENCE TO BE HELD AT JSC

The Fifteenth Lunar and Planetary Science Conference will be held March 12-16 at the NASA Johnson Space Center in Houston bringing together scientists from around the world to exchange information on studies of the Moon and planets.

The conference has been held annually since the first lunar material was returned to Earth after Apollo 11 in 1969.

Highlights of this year's conference include a session on Mars, the status of planned planetary missions and a review of recently acquired data on Venus.

Most of the meetings during the five-day conference are held at the Robert Gilruth Recreation Center at JSC.

March 6, 1984

# # #

NOTE TO EDITORS: Members of the press wishing to cover any part of the conference should contact Steve Nesbitt, NASA Public Information Office, (713) 483-5111, for copies of the press abstracts, interviews with conference participants or other assistance. Press badges will be issued for the conference.
NASA SCREENS FIFTH GROUP OF ASTRONAUT APPLICANTS

The fifth group of applicants to be interviewed for possible selection as Space Shuttle astronaut candidates reported to the NASA Johnson Space Center March 11 for a week of interviews and medical evaluations. The group includes 15 mission specialist and seven pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups.

NASA will select two categories of astronaut candidates--pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984 and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the fifth group of applicants selected for interviews are:

- more -
David T. Allen, Ph.D.
Born in Pittsburgh, PA. Currently residing in Los Angeles, CA. Employed by UCLA.

Maj. Larry D. Autry, USAF
Born in Athens, GA. Currently residing and stationed at Offutt AFB, NE.

Lt. Cmdr. Dennis N. Bostich, USN
Born in Oceanport, NJ. Currently residing in Virginia Beach, VA. Stationed on the U.S.S. John F. Kennedy.

Capt. Joseph A. Carretto, USAF
Born in West Hempstead, NY. Currently residing in Friendswood, TX. Detailed to NASA-Johnson Space Center.

Lt. Cmdr. Keith E. Crawford, USN
Born in Massillon, OH. Currently residing in California, MD. Stationed at Naval Air Station, Patuxent River, MD.

William M. Decampli, M.D., Ph.D.
Born in Allentown, PA. Currently residing in Stanford, CA. Employed by Stanford Medical Center, Stanford, CA.

Jan D. Dozier
Lt. Col. William A. Flanagan, USAF
Born in Washington, DC. Currently residing in Littlerock, CA. Stationed at Edwards AFB, CA.

Wendy S. Hale, Ph.D.
Born in Hackensack, NJ. Currently residing in Metairie, LA. Employed by Amoco Production Company, New Orleans, LA.

Rosario M. Izquierdo

Lt. Fred D. Knox, Jr., USN
Born in Dallas, TX. Currently residing in Virginia Beach, VA. Stationed at Naval Air Station Oceana, Virginia Beach, VA.

G. David Low
Born in Cleveland, OH. Currently residing in Pasadena, CA. Employed by Jet Propulsion Laboratory, Pasadena, CA.

Lt. Cmdr. Michael J. McCulley, USN
Born in San Diego, CA. Currently residing in Virginia Beach, VA. Stationed at Naval Air Station Oceana, Virginia Beach, VA.
Kenneth J. Myers, M.D.
Born in Washington, IN. Currently residing in Rochester, MN. Employed by the Mayo Clinic, Rochester, MN.

William S. O’Keefe
Born in Tokyo, Japan. Currently residing in Canton, MI. Employed by Ford Motor Company, Dearborn, MI.

Donald R. Pettit, Ph.D.
Born in Silverton, OR. Currently residing in Los Alamos, NM. Employed by Los Alamos National Laboratory.

Lt. Cmdr. William F. Readdy, USN
Born in Quonset Point, RI. Currently residing in Patuxent River, MD. Stationed at Naval Air Station, Patuxent River, MD.

Lt. Cmdr. Gregory J. Rose, USN
Born in Providence, RI. Currently residing in Virginia Beach, VA. Stationed on the U.S.S. America.

Lonnie Sharpe, Jr. Ph.D.
Born in Wilson, NC. Currently residing in Greensboro, NC. Employed by North Carolina A&T State University, Greensboro, NC.
Kathryn C. Thornton, Ph.D.
Born in Montgomery, AL. Currently residing in
Charlottesville, VA. Employed by the U.S. Army Foreign
Science and Technology Center, Charlottesville, VA.

C. Lacy Veach
Born in Chicago, IL. Currently residing in Houston,
TX. Employed by NASA-Johnson Space Center.

Lt. Cmdr. James B. Waddell, USN
Born in Dublin, GA. Currently residing in Orange Park,
FL. Stationed at Naval Air Station, Cecil Field, FL.

# # #
NASA AWARDS FIRE AND SAFETY CONTRACT AT JOHNSON CENTER

The NASA Johnson Space Center, Houston has awarded a cost-plus-fixed-fee contract to Webb, Murray & Associates, Inc., of La Porte, Texas covering fire protection and safety support services at the Center.

Valued at $1,157,855 for the first year, the contract covers accident prevention, alarm system maintenance, emergency action responses and fire prevention engineering.

Other bidders were Spectra Research Systems, Inc., Newport Beach, California, and West Coast Fire Services, Inc., Seattle, Washington.

# # #
NASA SCREENS SIXTH GROUP OF ASTRONAUT APPLICANTS

The sixth group of applicants to be interviewed for possible selection as Space Shuttle astronaut candidates will report to the NASA Johnson Space Center March 25 for a week of interviews and medical evaluations. The group includes 15 mission specialist and seven pilot applicants.

A total of 4934 men and women applied for the approximately 12 open positions. Those applicants selected for screening will spend a week at the Johnson Space Center in six groups.

NASA will select two categories of astronaut candidates—pilot and mission specialist. Selected candidates will begin a year of training and evaluation at JSC in July 1984 and will be selected as astronauts after satisfactory completion of the evaluation period.

The names, places of birth, current residences, and current duty stations or employers of the sixth group of applicants selected for interviews are:

-more-
Jerome Apt, Ph.D.
Born in Springfield, MA. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

Anthony P. Arrott
Born in Pittsburgh, PA. Currently residing in Cambridge, MA. Employed by the Massachusetts Institute of Technology, Cambridge, MA.

Lt. Cmdr. Guy R. Banta, USN
Born in Indianapolis, IN. Currently residing in Pensacola, FL. Stationed at Naval Air Station, Pensacola, FL.

Maj. Robert F. Behler, USAF
Born in Rome, NY. Currently residing in Penn Valley, CA. Stationed at Beale AFB, CA.

Millard F. Coffin
Born in Bangor, ME. Currently residing in Palisades, NY. Employed by the Lamont-Doherty Geological Observatory, Palisades, NY.

Lt. Cmdr. Frank L. Culbertson, Jr., USN
Born in Charleston, SC. Currently residing in Virginia Beach, VA. Stationed at Naval Air Station, Oceana, VA.

Patsy L. Dickens, Ph.D.
Born in Lafayette, LA. Currently residing in Riverdale, MD. Employed by NASA-Goddard Space Flight Center, Greenbelt, MD.

-more-
Lt. Cmdr. Patrick F. Drake, USN
Born in Portland, OR. Currently residing in Arnold, MD. Stationed at U. S. Naval Academy, Annapolis, MD.

Lt. Michael C. Eide, USN
Born in Estherville, IA. Currently residing in Lexington Park, MD. Stationed at Naval Air Station, Patuxent River, MD.

Katherine R. Daues
Born in LaMarque, TX Currently residing in Houston, TX. Employed by the Getty Oil Co., Houston, TX.

Chirold D. Epp, Ph.D.
Born in Fairview, OK. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

Stephen J. Feaster
Born in Wichita, KS. Currently residing in Houston, TX. Employed by NASA-Johnson Space Center.

William H. Gerstenmaier
Born in Akron, OH. Currently residing in Webster, TX. Employed by NASA-Johnson Space Center.

Lt. Cmdr. Carlton B. Jewett, USN
Born in Pittsburgh, PA. Currently residing in California, MD. Stationed at Naval Air Station, Patuxent River, MD.
Maj. Dennis A. Leuthauser, USAF
Born in Des Moines, IA. Currently residing in Edwards, CA. Stationed at Edwards AFB, CA.

Beth A. Marcus, Ph.D.
Born in New York, NY. Currently residing in New York, NY. Employed by New York University Medical Center, New York, NY.

Lisa R. W. Martin, M.D.
Born in Washington, DC. Currently residing in Silver Spring, MD. Employed by George Washington University Medical Center, Washington, DC.

Bethene E. McNealy
Born in Sacramento, CA. Currently residing in Houston, TX. Employed by Ford Aerospace and Communication Corp., Houston, TX.

Lt. Col. Roger A. Moseley, USAF
Born in St. George, UT. Currently residing and stationed at Ft. Belvoir, VA.

Lt. Eric C. Neidlinger, USN
Born in San Diego, CA. Currently residing in Ridgecrest, CA. Stationed at Naval Weapons Test Center, China Lake, CA.

Lisa A. Rossbacher, Ph.D.
Born in Fredericksburg, VA. Currently residing in Uppsala, Sweden. Employed by the University of Uppsala, Sweden.
Major Nolan D. Schmidt, USMC

Born in Clinton, OK. Currently residing in Lorton, VA. Stationed at Naval Air Systems Command, Washington, DC.
FLIGHT CONTROL OF 41-C

Flight control of Mission 41-C, the eleventh Space Shuttle mission, will be virtually identical to the previous flight in both structure and content.

Because in many ways the previous mission was a rehearsal for 41-C, many console positions will repeat similar functions and will be manned by the same flight controllers as before.

Lead flight director is Jay Greene. It is his first assignment as lead, but he has been flight director previously on STS-8 and 9, and was flight director for the ascent phases of STS-6 and 7. As lead for 41-C, he has additional responsibilities for prelaunch planning and coordination, as well as other leadership and management duties during orbital phases of the flight.

Greene will be supported by flight directors who became specifically experienced during special phases of mission 41-B, and will repeat those activities for 41-C. Flight director of the Planning team is Randy Stone, who directed rendezvous and proximity operations during the previous flight. Functions of the Orbit 2 team will include the two extravehicular activities, and that team will be directed by John Cox, who directed the Mission 41-B EVAs.

-more-
Flight director for the Ascent and Entry teams is Gary Coen, as on the previous mission. Coen has been Entry team flight director on each mission since STS-6, and was director of the STS-5 Planning team.

Specific console positions in the Mission Operations Control Room, their call signs and functions are:

- **Flight Director (Flight)** - has overall responsibility for the conduct of the mission and real-time decision-making.
- **Capsule Communicator (CAPCOM)** - Communicates with the flight crew on orbit.
- **Data Processing Systems Engineer (DPS)** - Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.
- **Environmental, Consumables and Mechanical Systems Engineer (EECOM)** - Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, instrumentation systems, transducers and lighting.
- **Remote manipulator system, Mechanical and Upper Stage Systems Officer (RMU)** - Monitors mechanical systems such as auxiliary power units, hydraulic systems, payload bay doors, vents and vent doors and Remote Manipulator System.
- **Flight Dynamics Officer (FIDO)** - Responsible for monitoring powered phase of the mission, orbital events and trajectories from the standpoint of mission success. Monitors vehicle energy levels during entry.
- **Guidance Officer (Guidance)** - Monitors onboard navigation and onboard guidance software.
- **Flight Surgeon (Surgeon)** - Responsible for advising the flight director of the crew's health.
Booster Systems Engineer (Booster) - Responsible for monitoring the vehicle's main engine and solid rocket booster propulsion systems during the ascent phase of the flight, and monitoring the purging system before entry.

Propulsion Systems Engineer (Prop) - Responsible for monitoring the status of the reaction control and orbital maneuvering systems engines during all phases of flight.

Guidance, navigation and Control Systems Engineer (GNC) - Responsible for all inertial navigational systems hardware, radio navigation systems hardware, radio navigation aids and digital autopilot systems.

Ground Control (GC) - Responsible for configuring for acquisition or loss of signal and status of ground support equipment.

Integrated Communications Systems Engineer (INCO) - Responsible for onboard communications system configuration.

Operations Integration Officer (OIC) - Responsible for detailed implementation of mission control procedures and for coordination and controlling the group displays and clocks in the control center.

Flight Activities Officer (FAO) - Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) - Coordinates all payload activities with the remote POCC.

Personnel assignments to Mission 41-B flight control teams follow:
<table>
<thead>
<tr>
<th>Flight Director</th>
<th>Ascent Team</th>
<th>Entry Team</th>
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<td>Robert E. Castle</td>
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<td>Ronald Dittemore</td>
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<td>L. H. Schmitt</td>
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<td>Gregg Ulrich</td>
<td>William D. Reeves</td>
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<td>Edward J. Ripma</td>
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SPACE STATION OFFICE MANAGER NAMED

Neil B. Hutchinson today was named manager of the Space Station Program Office at NASA's Johnson Space Center.

Deputy manager is John W. Aaron. Both appointments are effective immediately, Gerald D. Griffin, JSC Director, said.

NASA Administrator James M. Beggs announced in February that JSC would be "lead center" for the agency's Space Station Program.

Hutchinson has been serving in a staff assignment to the JSC Director since his return in January, 1984 from a one year assignment at NASA Headquarters, Washington, D.C. where he was Director, Space Shuttle Operations Office in the Office of Space Flight.

Hutchinson joined NASA in 1962 and worked on the design and development of the Mission Control Center's Real Time Computer Complex. He served as a Flight Director for the final Apollo lunar landing mission, Apollo 17, for all three Skylab missions in 1973-74, for the Apollo-Soyuz Test Project in 1975 and for Shuttle developmental and orbital test flights from 1977-81.
NOTE TO EDITORS

Space Shuttle Mission 41-C astronauts Robert Crippen, Richard Scobee, Terry Hart, George Nelson and James van Hoften, will conduct a postflight news conference at 1 p.m. CST Tuesday, April 24, in Bldg. 2, Room 135, Johnson Space Center, Houston.

# # #
DR. CAROLYN HUNTOON DETAILED AS SPECIAL ASSISTANT TO DIRECTOR, JOHNSON SPACE CENTER

Dr. Carolyn Huntoon has been detailed to the position of Special Assistant to the Director, Johnson Space Center. Huntoon will perform many of the duties previously assigned to Henry E. Clements, Associate Director, who is on temporary duty as JSC liaison at the Air Force Space Command in Colorado Springs, Colorado.

Dr. Huntoon joined NASA in 1970 after completion of a two-year National Research Council Postdoctoral Fellow assignment at JSC. In 1974, she became Head of the Endocrine Laboratory and since 1976 has been Chief of the Biomedical Laboratories Branch. Dr. Huntoon holds a B.S. degree in Biology from Northwestern State College of Louisiana, and M.S. and Ph.D. degrees in Physiology from Baylor College of Medicine.

# # #
NOTE TO EDITORS

Preflight background briefings and a news conference with the Space Shuttle Mission 41-D astronauts will be held Monday and Tuesday, May 21 and 22, at the Johnson Space Center, Houston.

Background briefings will begin at noon Monday with a mission overview by lead flight director Larry Bourgeois. Briefings later that afternoon will cover the payloads and other elements of the flight.

Mission Commander Henry Hartsfield, pilot Mike Coats, mission specialists Steve Hawley, Judy Resnik and Mike Mullane and payload specialist Charles Walker will begin their press conference at 9 a.m. Tuesday. Briefings will be held in Room 135, Bldg. 2.

#    #    #
NASA NEGOTIATES WITH GTE SYSTEMS FOR SHUTTLE WIRELESS INTERCOM

The NASA Johnson Space Center, Houston has selected GTE Systems of Needham Heights, Massachusetts for negotiations leading to a cost-reimbursement contract for Space Shuttle wireless crew communications equipment.

Under the contract, GTE will design, develop and manufacture a flight crew communications system for the Shuttle orbiters which will provide continuous duplex voice between up to seven astronauts without a maze of wires. The system will use low-power radio frequency carriers. The two year contract, starting July 1984 and ending July 1986, will have a total estimated cost and fee of $4,431,000.

Other firms bidding on the planned contract are A.R.F. Products Inc., Boulder, Colorado; Motorola Inc., Scottsdale, Arizona; and Teledyne Lewisburg, Lewisburg, Tennessee.

# # # # #
ASTRONAUT T.J. HART TO LEAVE NASA

Astronaut Terry J. Hart, who operated the Space Shuttle's mechanical arm to retrieve the Solar Maximum Satellite on the most recent space flight, will leave NASA effective June 15 to return to private industry.

Hart, 37, who joined NASA as an astronaut candidate in 1978, 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.

A native of Pittsburgh, Pennsylvania, Hart is married to the former Wendy Marie Eberhardt of Warren, Pa. They have two children.

May 10, 1984

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Hart received a bachelor of science degree in mechanical engineering from Lehigh University in 1968, a master of science degree in mechanical engineering from the Massachusetts Institute of Technology in 1969 and a master of science degree in electrical engineering from Rutgers University in 1978.

He entered active service with the Air Force Reserve in June, 1969, and completed pilot training in December, 1970. He has logged over 3,000 hours flying time.

Hart was named a NASA astronaut candidate in January, 1978. In August, 1979, he completed the training and evaluation period and became eligible for assignment to Space Shuttle flights as a mission specialist.

He was a member of the astronaut support crews for missions 1,2,3 and 7, serving as Capcom in Mission Control for those flights.

His only space flight was STS 41-C, April 6-13, 1984, which retrieved and repaired the Solar Maximum Satellite, returning it to useful service in the first demonstration of the Space Shuttle's on-orbit repair capabilities. During this mission the crew, commanded by Capt. Robert Crippen, also successfully deployed the Long Duration Exposure Facility which will orbit until retrieved early in 1985 by another Shuttle flight.
NASA SELECTS 17 ASTRONAUT CANDIDATES

The National Aeronautics and Space Administration today announced 17 new astronaut candidates for the Space Shuttle program.

Seven are pilot astronaut candidates and 10 are mission specialist astronaut candidates. They will report to NASA's Johnson Space Center, Houston, 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.

Three of the mission specialist candidates are women and one pilot candidate is Hispanic. Of the five civilians selected, three are current employees of the Johnson Space Center, and one is employed by NASA'S Jet Propulsion Laboratory, Pasadena, Calif.

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

A listing of candidates and their biographical data follows:

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### ASTRONAUT CANDIDATES

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<tr>
<th>Name</th>
<th>Branch</th>
<th>Role</th>
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<tr>
<td>Maj. James C. Adamson</td>
<td>U.S. Army</td>
<td>Mission Specialist</td>
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<tr>
<td>Capt. Mark N. Brown</td>
<td>U.S. Air Force</td>
<td>Mission Specialist</td>
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<tr>
<td>Maj. Kenneth D. Cameron</td>
<td>U.S. Marine Corps</td>
<td>Pilot</td>
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<tr>
<td>Lcdr. Frank L. Culbertson, Jr.</td>
<td>U.S. Navy</td>
<td>Pilot</td>
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<tr>
<td>Capt. Sidney M. Gutierrez</td>
<td>U.S. Air Force</td>
<td>Pilot</td>
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<td>Capt. Lloyd B. Hammond, Jr.</td>
<td>U.S. Air Force</td>
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<td>Marsha S. Ivins</td>
<td>Civilian</td>
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<tr>
<td>Capt. Mark C. Lee</td>
<td>U.S. Air Force</td>
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<tr>
<td>George D. Low</td>
<td>Civilian</td>
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<tr>
<td>Lcdr. Michael J. McCulley</td>
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<td>Ellen L. Shulman</td>
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<td>Kathryn C. Thornton</td>
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<td>Charles L. Veach</td>
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<tr>
<td>Lt. James D. Wetherbee</td>
<td>U.S. Navy</td>
<td>Pilot</td>
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NAME: James C. Adamson, Major, U.S. Army

BIRTH DATE AND PLACE: March 3, 1946 - Warsaw, New York

CURRENT RESIDENCE: Seabrook, Texas

EDUCATION: Geneseo Central High School, Geneseo, New York
BS, Engineering, U.S. Military Academy, 1969
MS, Aero. & Mech. Engineering, Princeton University, 1977

PRESENT POSITION: Flight Controller
Systems Division
John Space Center
Houston, Texas

PARENTS: Mr. & Mrs. Herman Adamson, Geneseo, New York

---------------------------------------------

NAME: Mark N. Brown, Capt., U.S. Air Force

BIRTH DATE AND PLACE: November 18, 1951 - Valparaiso, Indiana

CURRENT RESIDENCE: Pearland, Texas

EDUCATION: Valparaiso High School, Valparaiso, Indiana
BS, Aero. & Astro. Engineering, Purdue University, 1973
MS, Astro. Engineering, Air Force Institute of Technology, 1980

PRESENT POSITION: Pilot, F-4 Replacement Training Unit
Homestead AFB, Florida

PARENTS: Mr. & Mrs. Richard S. Brown, Valparaiso, Indiana

---------------------------------------------

NAME: Kenneth D. Cameron, Major, U.S. Marine Corps

BIRTH DATE AND PLACE: November 29, 1949 - Cleveland, Ohio

CURRENT RESIDENCE: Patuxent River, Maryland

EDUCATION: Rocky River High School, Rocky River, Ohio
BS, Aeronautics & Astronautics, Massachusetts Inst. of Technology, 1978
MS, Aeronautics & Astronautics, Massachusetts Inst. of Technology, 1979

PRESENT POSITION: Project Officer
Marine Aviation Detachment
Naval Air Test Center
Patuxent River, Maryland

PARENTS: Mr. & Mrs. Donald B. Cameron, Westport, Connecticut

-more-
NAME: Manley L. Carter, Jr., Comdr., U. S. Navy

BIRTH DATE AND PLACE: August 15, 1947 - Macon, Georgia

CURRENT RESIDENCE: California, Maryland

EDUCATION: Lanier High School, Macon, Georgia
BA, Chemistry, Emory University, 1969
MD, Emory University, 1973

PRESENT POSITION: Test Pilot Under Instruction
Naval Air Test Center
Patuxent River, Maryland

PARENTS: Mr & Mrs, Manley L. Carter, Sr., Warner Robins, Georgia

NAME: John H. Casper, Lt. Col., U. S. Air Force

BIRTH DATE AND PLACE: July 9, 1943 - Greenville, South Carolina

CURRENT RESIDENCE: Alexandria, Virginia

EDUCATION: Chamblee High School, Chamblee, Georgia
BS, Astronautics & Engineering Sci.
U.S. Air Force Academy, 1966
MS, Astronautics, Purdue University, 1967

PRESENT POSITION: Deputy Chief, Special Projects Office
Headquarters, U.S. Air Force
Washington, DC

PARENTS: Mr. & Mrs. John Casper, Gainesville, Georgia

NAME: Frank L. Culbertson, Jr., Lt. Comdr., U.S. Navy

BIRTH DATE AND PLACE: May 15, 1949 - Charleston, South Carolina

CURRENT RESIDENCE: Lexington Park, Maryland

EDUCATION: Holly Hill High School, Holly Hill, South Carolina
BS, Aerospace Engineering, U.S. Naval Academy, 1971

PRESENT POSITION: Naval Aviator
F-14 Replacement Air Group
Naval Air Station Oceana, Virginia

PARENTS: Dr. & Mrs. Frank L. Culbertson, Sr.
Holly Hill, South Carolina
NAME: Sidney M. Gutierrez, Capt., U. S. Air Force

BIRTH DATE AND PLACE: June 27, 1951 - Albuquerque, New Mexico

CURRENT RESIDENCE: Edwards, California

EDUCATION: Valley High School, Albuquerque, New Mexico
            BS, Aerospace Engineering, U. S. Air Force Academy 1973
            MA, Management, Webster College, 1977

PRESENT POSITION: Test Pilot
                   Air Force Flight Test Center
                   Edwards AFB, California

PARENTS: Mr. & Mrs. Robert A. Gutierrez, Albuquerque, New Mexico

NAME: Lloyd B. Hammond, Jr., Capt., U.S. Air Force

BIRTH DATE AND PLACE: January 16, 1952 - Savannah, Georgia

CURRENT RESIDENCE: Edwards, California

EDUCATION: Kirkwood High School, Kirkwood, Missouri
            MS, Engineering Mechanics, Georgia Inst. of Technology, 1974

PRESENT POSITION: Instructor Pilot
                   USAF Test Pilot School
                   Edwards AFB, CA.

PARENTS: Mr. & Mrs. Lloyd B. Hammond, Sr., Lutz, Florida

NAME: Marsha S. Ivins

BIRTH DATE AND PLACE: April, 15, 1951 - Baltimore, Maryland

CURRENT RESIDENCE: Webster, Texas

EDUCATION: Nether Providence High School, Wallingford, PA.
            BS, Aerospace Engineering, University of Colorado, 1973

PRESENT POSITION: Flight Simulation Engineer
                   Aircraft Operations Division
                   Johnson Space Center
                   Houston, Texas

PARENTS: Mr. & Mrs. Joseph L. Ivins, Wallingford, Pennsylvania

-more-
NAME: Mark C. Lee, Capt., U.S. Air Force

BIRTH DATE AND PLACE: August 14, 1952 - Viroqua, Wisconsin

CURRENT RESIDENCE: Layton, Utah

EDUCATION: Viroqua High School, Viroqua, Wisconsin
BS, Civil Engineering, U.S. Air Force Academy, 1974
MS, Mechanical Engineering, Massachusetts Inst. of Technology, 1980

PRESENT POSITION: F-16 Pilot
388 Tactical Fighter Wing
Hill AFB, Utah

PARENTS: Mr. & Mrs. Charles M. Lee, Viroqua, Wisconsin

---

NAME: George D. Low

BIRTH DATE AND PLACE: February 19, 1956 - Cleveland, Ohio

CURRENT RESIDENCE: Pasadena, California

EDUCATION: Langley High School, McLean, Virginia
BS, Physics, Washington & Lee University, 1978
BS, Mechanical Engineering, Cornell University, 1980
MS, Aeronautics & Astronautics, Stanford University, 1983

Present Position: Spacecraft Systems Engineer
Jet Propulsion Laboratory
Pasadena, California

PARENTS: Mr. & Mrs. George M. Low, Troy, New York

---

NAME: Michael J. McCulley, Lt. Comdr., U.S. Navy

BIRTH DATE AND PLACE: August 4, 1943 - San Diego, California

CURRENT RESIDENCE: Virginia Beach, Virginia

EDUCATION: Livingston Academy, Livingston, Tennessee
BS, Metallurgical Engineering, Purdue University, 1970
MS, Metallurgical Engineering, Purdue University, 1970

PRESENT POSITION: Operations Officer
Attack Squadron Thirty-Five, USS Nimitz
Naval Air Station Oceana, Virginia

PARENTS: Mr. & Mrs. Gibson H. McCulley (both deceased)

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NAME: William M. Shepherd, Lt. Comdr., U.S.Navy

BIRTH DATE AND PLACE: July 26, 1949 - Oak Ridge, Tennessee

CURRENT RESIDENCE: Virginia Beach, Virginia

EDUCATION: Arcadia High School, Scottsdale, Arizona
BS, Aerospace Engineering, U.S. Naval Academy, 1971
MS, Mechanical Engineering, Massachusetts Inst. of
technology, 1978
MS, Ocean Engineering, Massachusetts Inst. of Technology, 1978

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NAME: Ellen L. Shulman, M.D.

BIRTH DATE AND PLACE: April 27, 1953 - Fayetteville, North Carolina

CURRENT RESIDENCE: Houston, Texas

EDUCATION: Bayside High School, New York, New York
BA, Geology, State University of New York at Buffalo, 1974
MD, Cornell University, 1978

PRESENT POSITION: Medical Officer
Medical Sciences Division
Johnson Space Center
Houston, Texas

PARENTS: Dr. & Mrs. Melvin Shulman, Beechhurst, New York

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NAME: Kathryn C. Thornton, Ph.D

BIRTH DATE AND PLACE: August 17, 1952 - Montgomery, Alabama

CURRENT RESIDENCE: Charlottesville, Virginia

EDUCATION: Sidney Lanier High School, Montgomery, Alabama
BS, Physics, Auburn University, 1974
MS, Physics, University of Virginia, 1977
Ph.D, Physics, University of Virginia, 1979

PRESENT POSITION: Physicist
U.S. Army Foreign Science & Technology Center
Charlottesville, Virginia

PARENTS: Father: William C. Cordell, Hope Hull, Alabama
Mother: Elsie Cordell (deceased)
NAME: CHARLES L. VEACH
BIRTH DATE AND PLACE: September 18, 1944 - Chicago, Illinois
CURRENT RESIDENCE: Houston, Texas
EDUCATION: Punahou School, Honolulu, Hawaii
            BS, Engineering Management, U.S. Air Force Academy, 1966
PRESENT POSITION: Aerospace Engineer & Pilot
                  Aircraft Operations Division
                  Johnson Space Center
                  Houston, Texas
PARENTS: Mr. & Mrs. Marshall E. Veach, Honolulu, Hawaii

NAME: James D. Wetherbee, Lt., U.S. Navy
BIRTH DATE AND PLACE: November 27, 1952 - Flushing, New York
CURRENT RESIDENCE: Lemoore, California
EDUCATION: Holy Family Diocesan High School, South Huntington,
            New York
            BS, Aerospace Engineering, University of Notre Dame, 1974
PRESENT POSITION: Test Pilot
                  Naval Air Station Lemoore, California
PARENTS: Mr. & Mrs. Dana A. Wetherbee, Huntington Station, New York

# # #
NASA ANNOUNCES CREW MEMBERS FOR FUTURE SPACE SHUTTLE FLIGHTS

The flight crew for Space Shuttle flight 51-H and mission specialist astronauts for mission 61-E were announced today by NASA.

Veteran astronaut Vance D. Brand will command mission 51-H, scheduled for launch in November 1985, using the orbiter Atlantis. Brand was commander of STS-5, the first operational Shuttle flight in November 1982 and mission 41-B, the first use of the manned maneuvering unit in February 1984.

Other members of the 51-H crew are Michael J. Smith, pilot; Robert C. Springer, Dr. Owen K. Garriott and European Space Agency astronaut, Dr. Claude Nicollier, mission specialists; and Dr. Michael L. Lampton and Dr. Byron K. Lichtenberg, payload specialists.

Payload on Flight 51-H will be Earth Observation Mission-1 (EOM-1), a reflight of nine Spacelab-1 experiments in the areas of space plasma physics, solar physics, atmospheric physics, astronomy and earth observations. A short Spacelab habitable module and a pallet of experiment hardware will occupy the cargo bay.
Launch of 61-E is set for March 1986, with a crew of six on the orbiter Columbia. Mission specialists for this mission include Dr. Robert A. R. Parker, David C. Leestma and Dr. Jeffrey A. Hoffman. The cargo will be Intelsat VI-1, a large communications satellite for Intelsat, the multinational communications satellite network, and Astro-1, an astronomy package designed to view Halley's Comet.

The 51-H commander, Brand, 53, a native of Longmont, Colo., came to NASA in 1966. His first space flight was as command module pilot on the July 1975 Apollo-Soyuz Test Project. Smith, 39, is a native of Beaufort, N. C. As a Navy pilot, he served on the aircraft carriers USS Kitty Hawk and USS Saratoga. He came to NASA in 1980 and this will be his first Shuttle mission.

The 51-H mission specialists include Springer, 42, who was born in St. Louis, Mo., and joined NASA in 1980 after serving as a pilot in the Marine Corps. Garriott, 53, is a veteran astronaut, having logged nearly 70 days in space, including the 59-day Skylab-3 mission in 1973 and the nine-day Spacelab-1 flight in 1983. Garriott has been with NASA since 1965. He was born in Enid, Okla.

Nicollier is a European astronaut flying as a mission specialist with European payloads. A native of Vevey, Switzerland, he is 39 years old. His experience prior to assignment for astronaut training was in astronomy. He is a pilot in the Swiss Air Force Reserve.

Lampton, 43, is a native of Williamsport, Pa. A physicist, he was a backup payload specialist for the Spacelab-1 mission. Lichtenberg, 36, is a biomedical engineer and pilot. A native of
Stroudsburg, Pa., he was one of two payload specialists who flew on the Spacelab-1 mission.

Of the 61-E mission specialists, Parker also flew on Spacelab-1, serving as a mission specialist. A native of New York City, the 47-year-old astronomer/astronaut joined NASA in 1967. This will be his second space flight.

Leestma, 35, was born in Muskegon, Mich. A Naval Flight Officer, he was selected as an astronaut candidate in 1980. He also is a crew member on Shuttle flight 41-G, scheduled to fly in October 1984. Hoffman, 39, is a Brooklyn, N. Y., native. A member of the 1978 class of astronauts, he is scheduled to fly Shuttle mission 41-F in August. Hoffman's experience prior to coming to NASA was in high energy astrophysics.

# # #
SUMMER WORKSHOP AND STUDY PROGRAM

A NASA-sponsored summer study program and workshop series will be held June 17 to Aug. 24 at the University of California at San Diego.

The participants are expected to include a number of former astronauts and pioneering space scientists.

Purpose of the program is to forecast possible space activities at about the year 2010, to identify new technology for use in NASA planning, and to forecast the impact on space activities if useful material can be acquired from such sources as the moon and asteroids.

NASA and the American Society for Engineering Education will jointly sponsor the summer study. The study is titled, "Technological Springboard to the 21st Century: A Study of Space Based Resources and Operations." The 10-week session will be managed for NASA and the ASEE by the California Space Institute, a part of the University of California System. About 20 university faculty members are expected from a variety of schools.

In addition to the study program, a series of NASA technical workshops will be held every other week. Dates and topics of those workshops are:

June 25-29 — Alternative scenarios for space development.

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July 9-13 — The impact of space resources on energy, power and propulsion used in space.

July 23-27 — Space materials: exploration, extraction and processing.

August 6-10 — Economic and system tradeoffs, management issues, political issues and societal issues of space activities using space resources.

August 20-24 — NASA planning session.

The Office of Aeronautics and Space Technology, Washington, D.C., is NASA's lead organization in the program. The workshops are being managed by the Solar System Exploration Division at Johnson Space Center, Houston.

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NOTE TO EDITORS: New media representatives will be welcome to attend the final workshop briefing at a time, date and place to be announced. Also, executive reports and final reports generated by the workshops will be available for distribution to media. announced.
Air Force Col. Richard L. "Larry" Griffin has left the Johnson Space Center to join the USAF Space Command as head of the 2nd Space Wing Planning Group Directorate.

Griffin has served at JSC since August, 1982 as Assistant to the Director for Department of Defense Affairs.

He and his staff, initially a nucleus of about 20 people, will be located at Peterson Air Force Base, Colorado until completion of the Consolidated Space Operations Center (CSOC) administration and engineering building at Falcon Air Force Station in late 1985.

The CSOC complex, now under construction east of Colorado Springs, will serve as the center for Air Force Space Shuttle operations and will be the eventual home for the 2nd Space Wing.

Griffin served as Special Assistant for Space Shuttle Operations and Development with the U. S. Air Force in Washington, D. C. prior to his assignment in 1981 to the Johnson Space Center as Special Assistant to the Shuttle Program Manager. He holds a Bachelor of Science Degree from Texas A&M University and a Master of Business Administration Degree from Auburn University.
FLIGHT CONTROL OF 41-D

Flight control of Space Shuttle Mission 41-D, set for launch Monday, June 25 from Kennedy Space Center, Florida, will be identical in function to recent Space Shuttle flights.

One observable difference, though, will be the location of the control room. For the first time since STS-4, engineers will be controlling and monitoring flight activities and orbiter functions from the second floor control room.

Within the control room, some console positions have been relocated, but the functions and number of personnel remain the same as the previous Shuttle mission, 41-C, in April.

Lead flight director for 41-D is Larry Bourgeois. He will be serving his first assignment as lead, but has been a flight director on Shuttle missions 7, 9 and 11. Bourgeois has additional responsibilities for prelaunch planning and coordination, as well as other leadership and management duties during the mission.

Flight director of the ascent/entry team is Gary Coen who has headed up that team on previous missions. Orbit 2 team flight director is Tommy Holloway, also a veteran of previous missions. Cleon Lacefield will serve his first mission as a flight director, heading up the planning team.

Specific console positions in the Mission Operations Control Room, their call signs and functions are:

-more-
Flight Director (Flight) - has overall responsibility for the conduct of the mission and real-time decision-making.

Capsule Communicator (CAPCOM) - Communicates with the flight crew on orbit.

Data Processing Systems Engineer (DPS) - Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.

Environmental, Consumables and Mechanical Systems Engineer (EECOM) - Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, transducers and lighting.

Remote Manipulator System, Mechanical and Upper Stage Systems Officer (RMU) - Monitors mechanical systems such as auxiliary power units, hydraulic systems, payload bay doors, vents and vent doors and Remote Manipulator System.

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Guidance Officer (Guidance) - Monitors onboard navigation and onboard guidance software.

Flight Surgeon (Surgeon) - Responsible for advising the flight director of the crew's health.

Booster Systems Engineer (Booster) - Responsible for monitoring the vehicle's main engine and solid booster propulsion systems during the ascent phase of the flight and monitoring the purging system before entry.

Propulsion Systems Engineer (Prop) - Responsible for monitoring the status of the reaction control and orbital maneuvering systems engines during all phases of flight.

Guidance, Navigation and Control Systems Engineer (GNC) - Responsible for all inertial navigation systems hardware, radio navigation systems hardware, radio navigation aids, and digital autopilot systems.

-more-
Ground Control (GC) - Responsible for configuring for acquisition or loss of signal and status of ground support equipment.

Integrated Communications Systems Engineer (INCO) Responsible for onboard communications system configuration.

Operations Integration Officer (OIO) - Responsible for detailed implementation of mission control procedures and for coordination and controlling the group displays and clocks in the control center.

Flight Activities Officer (FAO) - Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) - Coordinates all payloads activities with the remote Pocc (Payloads Operation Control Center).

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<td>Flight Director</td>
<td>G. E. Coen</td>
<td>L. Bourgeois</td>
<td>T. W. Holloway</td>
<td>C. Lacefield</td>
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<td></td>
<td>J. Blaha</td>
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<td>R. Richards</td>
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<td>Ground Controller</td>
<td>C. Capps</td>
<td>N. R. Talbott</td>
<td>W. Murray</td>
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<td>Surgeon</td>
<td>E. Shulman, M.D.</td>
<td>E. Shulman, M.D.</td>
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<tr>
<td>Operations Integration Officer</td>
<td>K. W. Anson</td>
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<td>W. B. Boatman</td>
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<td>Payloads</td>
<td>J. R. Gauthier</td>
<td>J. Gauthier</td>
<td>W. C. Burton</td>
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<td>Flight Dynamics Officer</td>
<td>B. H. Sweet</td>
<td>E. Gonzales</td>
<td>P. J. Burley</td>
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<td>Guidance</td>
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<td>Communications Systems Officer</td>
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<tr>
<td>Guidance, Navigation &amp; Control</td>
<td>D. Whittle</td>
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<td>C. K. Alford</td>
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<td>Propulsion Systems</td>
<td>R. E. Castle</td>
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<td>J. Conner</td>
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<tr>
<td>RMS, Mechanical Systems &amp; Upper Stage Systems Officer</td>
<td>W. H. Gerstenmaier</td>
<td>W. H. Gerstenmaier</td>
<td>C. Young</td>
<td>L. Schmitt</td>
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<td>J. Ripma</td>
<td>L. Schmitt</td>
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# # #
VISITING PROF SPEAKS AT SPACE CENTER SEMINAR

Julius Dasch, a participant in NASA Johnson Space Center's Summer Faculty Program, will be sharing his techniques for gaining student interest in science and technology-related fields with other visiting faculty members at a lecture on July 13.

"Teaching Space Appreciation" is one segment of a weekly seminar which is part of the Summer Program.

Dasch, who has a doctorate degree in geochemistry from Yale University, has been conducting an increasingly popular elective course on geology and space science at Oregon State University each spring since 1981. "Rocks and Stars" had an enrollment of 727 this spring with an equal number of students turned away because of lack of space.

The July 13 lecture by Dr. Dasch will be held at Johnson Space Center at 11:00 a.m. in Room 2026, Bldg. 17.
The NASA Johnson Space Center has signed a supplemental agreement to the cost-plus-award-fee contract with the Singer Company for additional labor man-hours and materials to support work related to the maintenance, modification, and operational support of the simulation complex at JSC.

Work to be performed consists of engineering, programming, design, fabrication, installation, and testing of modifications to update and/or improve the simulation complex.

The majority of the work will be performed by Singer's Link Flight Simulation Division at their Houston, Texas, location with support from their facilities at Binghamton, New York.

The additional effort, valued at $7,332,307, brings the estimated value of the Singer/Link contract to $176,147,350.
VISITOR PROGRAM SCHEDULE CHANGES DURING MISSIONS

NASA Johnson Space Center is open to the public every day from 9 a.m. to 4 p.m. except Christmas Day. The Center is open as early as 6 a.m., if necessary, during missions so launch and landing may be viewed in the auditorium of the Visitor Center. There is no charge for admission nor requirement for advance reservations.

Briefings in the Mission Control Center will not be given during missions but are normally available during non-flight periods. A pass, which may be obtained at the Information Desk in the Visitor Center, is required. The briefings are approximately every hour with the last one beginning no later than 3:30 p.m.

Mission schedules do not affect the visitors' hours in the other buildings on the self-guided tour. These facilities house Skylab trainers, mission simulators, full-scale Shuttle trainers, and lunar sample laboratories.
The Visitor Center and Museum has information on self-guided tours; a collection of actual space hardware, including Mercury and Apollo spacecraft; and moon rocks. NASA films are shown throughout the day.

All tour programs are designed to accommodate the handicapped.

Souvenirs, film, and refreshments may be purchased in the cafeteria and gift shop. There is a picnic area on-site. Pets are not permitted on tours, nor are childcare facilities available.

Johnson Space Center is located approximately 25 miles south of Houston's central business district in the Clear Lake-Bay Area.

Additional information may be obtained by calling the Public Services Branch at (713) 483-4241.

###
NASA ANNOUNCES UPDATED FLIGHT CREW ASSIGNMENTS

The National Aeronautics and Space Administration today announced the assignment of the commander and a mission specialist for a future Space Shuttle flight and the rescheduling of some other crews for upcoming missions.

Veteran astronaut Henry W. Hartsfield, commander of the next Space Shuttle flight 41-D, has been named to command flight 61-A, the dedicated German Spacelab mission planned for launch Oct. 14, 1985. James F. Buchli has been assigned as a mission specialist for that flight.

Previously named for that flight were pilot Steven R. Nagel, mission specialists Guion S. Bluford, Jr., and Bonnie J. Dunbar, and European payload specialists Reinhard Furrer, Ernst Messerschmid and Wubbo Ockels.
The flight crew for mission 41-F, commanded by Karol J. Bobko, has been reassigned to mission 51-E, scheduled for launch Feb. 12, 1985. The crew's original flight was deleted and some of its cargo placed on flight 41-D after the launch abort of that flight in late June.

The attached list is based on a plan to reschedule crews for the earliest possible date on flights for which the training is similar to their original mission.

**FLIGHT 41-D**

Projected date: No earlier than Aug. 24, 1984

Orbiter: Discovery

Payload:
- OAST-1
- SBS-D
- Telstar-3C
- Syncom IV-2

Flight crew:
- Henry W. Hartsfield, CDR
- Michael L. Coats, PLT
- Richard A. Mullane, MS
- Steven A. Hawley, MS
- Judith A. Resnik, MS

Payload Specialist:
- Charles D. Walker (McDonnell Douglas)

**FLIGHT 41-G**

Projected date: Oct. 1, 1984

Orbiter: Challenger

Payload:
- OSTA-3
- ERBS
- LFC

---more---
Flight crew:
Robert L. Crippen, CDR
Jon A. McBride, PLT
Kathryn D. Sullivan, MS
Sally K. Ride, MS
David C. Leestma, MS

Payload specialists:
Marc Garneau (Canada)
Paul D. Scully-Power (U.S. Navy civilian)

FLIGHT 51-A

Projected date: Nov. 2, 1984
Orbiter: Discovery
Payload:
Dual option flight
Telesat-H
Syncom IV-1

Flight Crew:
Frederick H. Hauck, CDR
David M. Walker, PLT
Anna L. Fisher, MS
Dale A. Gardner, MS
Joseph P. Allen, MS

FLIGHT 51-C

DOD MISSION

FLIGHT 51-B

Projected date: Jan. 17, 1985
Orbiter: Discovery
Payload:
Spacelab 3

Flight Crew:
Robert F. Overmyer, CDR
Frederick D. Gregory, PLT
Don L. Lind, MS
Norman E. Thagard, MS
William E. Thornton, MS

--more--
Payload specialists:
Lodewijk van den Berg (EG&G Corp.)
Taylor G. Wang (Jet Propulsion Laboratory)

FLIGHT 51-E
Projected date: Feb. 12, 1985
Orbiter: Challenger
Payload:
  Telesat-I
  TDRS-B

Flight Crew:
  Karol J. Bobko, CDR
  Donald E. Williams, PLT
  M. Rhea Seddon, MS
  Jeffrey A. Hoffman, MS
  S. David Griggs, MS

French payload specialist

FLIGHT 51-D
Projected date: March 18, 1985
Orbiter: Discovery
Payload:
  LDEF-1 Retrieval
  Syncom IV-3

Flight crew:
  Daniel C. Brandenstein, CDR
  John O. Creighton, PLT
  Shannon W. Lucid, MS
  John M. Fabian, MS
  Steven R. Nagel, MS

Hughes payload specialist

FLIGHT 51-F
Projected date: April 17, 1985
Orbiter: Challenger

--more--
Payload:
  Spacelab 2

Flight crew:
  Charles G. Fullerton, CDR
  S. David Griggs, PLT
  F. Story Musgrave, MS
  Anthony W. England, MS
  Karl G. Henize, MS

Payload specialists:
  Loren W. Acton (Lockheed)
  John-David Bartoe (U.S. Navy civilian)

FLIGHT 51-G

Projected date: May 30, 1985

Orbiter: Columbia

Payload:
  Ease-Access
  Telstar-3D
  Arabsat-A
  Morelos-A

Flight crew:
  Joe H. Engle, CDR
  Richard O. Covey, PLT
  James van Hoften, MS
  John M. Lounge, MS
  William F. Fisher, MS

FLIGHT 51-L

Projected date: July 2, 1985

Orbiter: Challenger

Payload:
  EOS-1
  TDRS-C
  OASIS

Flight crew:
  Brewster H. Shaw Jr., CDR
  Bryan D. O'Connor, PLT
  Mary L. Cleave, MS
  Sherwood C. Spring, MS
  Jerry L. Ross, MS

--more--
FLIGHT 61-A

Projected date: Oct. 14, 1985
Orbiter: Columbia
Payload: Spacelab D-1
Flight crew:
  Henry W. Hartsfield, CDR
  Steven R. Nagel, PLT
  James F. Buchli, MS
  Guion S. Bluford, Jr., MS
  Bonnie J. Dunbar, MS
Payload specialists:
  Reinhard Furrer (DFVLR)
  Ernst Messerschmid (DFVLR)
  Wubbo Ockels (ESA)

FLIGHT 51-H

Projected date: November 27, 1985
Orbiter: Atlantis
Payload:
  EOM-1
Flight crew:
  Vance D. Brand, CDR
  Michael J. Smith, PLT
  Robert C. Springer, MS
  Owen K. Garriott, MS
  Claude Nicollier, MS
Payload specialists:
  Michael L. Lampton
  Byron K. Lichtenberg (MIT)

FLIGHT 61-D

Projected date: Jan. 28, 1986
Orbiter: Columbia
Payload: Spacelab 4

--more--
Flight crew:
  John M. Fabian, MS
  James P. Bagian, MS
  M. Rhea Seddon, MS
  (commander, pilot and payload specialists to be assigned)

FLIGHT 61-E

Projected date: March 6, 1986

Orbiter: Columbia

Payload:
  Intelsat VI-1
  Astro-1

Flight crew:
  (commander and pilot to be assigned)
  Robert A.R. Parker, MS
  David C. Leestma, MS
  Jeffrey A. Hoffman, MS

STANDBY CREW

Karol J. Bobko, CDR
Ronald J. Grabe, PLT
Richard M. Mullane, MS
Robert L. Stewart, MS
David C. Hilmers, MS

# # #
NOTE TO EDITORS: 41-D PREFLIGHT BRIEFING SCHEDULED

A mission overview briefing and flight crew news conference for Space Shuttle flight 41-D will be held Friday, Aug. 17, at the NASA Johnson Space Center in Houston.

Lead flight director Randy Stone will review mission events and goals at a 10 a.m. briefing in Bldg. 2, Room 135.

The astronaut crew for 41-D will hold a news conference beginning at noon in the same location.
LENOIR TO LEAVE NASA

Astronaut William B. Lenoir will leave the Space Agency
effective mid-September to assume a position with the management
consulting firm of Booz, Allen & Hamilton Inc., New York, NY, the
National Aeronautics and Space Administration announced today.

Dr. Lenoir, who has been an astronaut since 1967, will join
the Space Systems Practice of Booz, Allen & Hamilton in
Arlington, VA. The firm consults worldwide in management and
technology and has been involved with the U.S. space program
since 1963.

Lenoir will become a Principal in the Space Systems
Practice, working in the areas of systems development and
commercialization of space. "I am looking forward to applying
the wealth of experience I have gained with NASA to the growing
and challenging field of space commercialization," Lenoir said.

Lenoir, a graduate of the Massachusetts Institute of
Technology with a B.S, masters and doctorate in electrical
engineering, was a crew member on STS-5, the first operational
mission of the Space Shuttle, in November 1982. During that
flight, Lenoir served as the first in-orbit launch director for
the deployment of a commercial communications satellite from the
Space Shuttle. Since that time, he has been responsible for the
direction and management of
mission development within the Astronaut Office at the Johnson
Space Center.

Lenoir was selected as a scientist-astronaut in August
1967. He served as backup science pilot for Skylab 3 and Skylab
4. During Skylab 4, he was co-leader of the visual observations
project and coordinator between the flight crew and the principal
investigators for the solar science experiments.

From September 1974 to July 1976, Lenoir worked on the NASA
Satellite Power Team, a group formed to investigate the potential
of large-scale satellite power systems for terrestrial utility
consumption.

Lenoir and his family intend to relocate to the Washington,
D.C. area

# # #
EMORY UNIVERSITY ALUMNI SELECTED AS ASTRONAUT CANDIDATE

U.S. Navy Commander Manley L. Carter, Jr., has been selected as an astronaut candidate by the National Aeronautics and Space Administration (NASA). Born in Macon, Georgia, Manley attended Emory University in 1969 and 1973 and received a BA in Chemistry and a Doctor of Medicine Degree.

Son of Mr. & Mrs. Manley L. Carter, Sr. of Warner Robins, Georgia, Manley attended Lanier High School, Macon, Georgia. His position prior to selection was Test Pilot Under Instruction, Naval Air Test Center, Patuxent River, Maryland.

NASA announced 17 new astronaut candidates for the Space Shuttle Program. Manley reported to NASA's Johnson Space Center, Houston, Texas, this summer to begin a year-long program of training and evaluation as a mission specialist candidate. 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 the Johnson Space Center.
FLIGHT CONTROL OF 41-D

Flight control of Space Shuttle Mission 41-D, set for launch Wednesday, August 29 from Kennedy Space Center, Florida, will be identical in function to recent Space Shuttle flights.

One observable difference, through, will be the location of the control room. For the first time since STS-4, engineers will be controlling and monitoring flight activities and orbiter functions from the second floor control room.

Within the control room, some console positions have been relocated, but the functions and number of personnel remain the same as the previous Shuttle mission, 41-C, in April.

Lead flight director for 41-D is B. R. Stone. He will be serving his first assignment as lead, but has been a flight director on Shuttle missions 6, 8, 41-B and 41-C. Stone has additional responsibilities for prelaunch planning and coordination, as well as other leadership and management duties during the mission.

Flight director of the ascent/entry team is Gary Coen who has headed up that team on previous missions. Orbit 2 team flight director is John T. Cox, also a veteran of previous missions. Alan L. Briscoe will serve his first mission as a flight director, heading up the planning team.
Specific console positions in the Mission Operations Control Room, their call signs, and functions are:

Flight Director (Flight) - has overall responsibility for the conduct of the mission and real-time decision-making.

Capsule Communicator (CAPCOM) - Communicates with the flight crew on orbit.

Data Processing Systems Engineer (DPS) - Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.

Electrical, Environmental, Consumables and Mechanical Systems Engineer (EECOM) Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, transducers and lighting.

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Integrated Communications Systems Engineer (INCO) - Responsible for onboard communications system configuration.

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Flight Activities Officer (FAO) - Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) - Coordinates all payloads activities with the remote POCC (Payload Operations Control Center).

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NOTE TO EDITORS: SHUTTLE FLIGHT 41-G BRIEFINGS SET

A mission overview briefing and astronaut crew press conference for Space Shuttle flight 41-G will be held during Shuttle flight 41-D at the NASA Johnson Space Center in Houston.

Based on an on-time launch of 41-D Aug. 29, the mission overview briefing will be held at 1 p.m., CDT Saturday, Sept. 1.

The crew press conference with commander Robert L. Crippen, pilot Jon A. McBride, mission specialists David C. Leestma, Sally K. Ride and Kathy Sullivan, and payload specialists Paul D. Scully-Power and Marc Garneau, will begin at 1:30 p.m. CDT Sunday, Sept. 2.

Times and dates could change in the event of a launch slip of mission 41-D.

Both briefings will be held in Room 135 of Building 2 at JSC.

# # # #

August 27, 1984
BACKGROUND BRIEFINGS, JSC TOUR SCHEDULED FOR CANADIAN MEDIA

Background briefings, a tour of training facilities and interviews with crew members of Space Shuttle flight 41-G are planned for Sept. 1 and 2 at the NASA Johnson Space Center in Houston.

The activities are scheduled for flight days 4 and 5 of Shuttle mission 41-D to acquaint Canadian news media with center facilities and provide background information on the space flight which will carry the first Canadian payload specialist, Marc Garneau, into orbit in early October.

A mission overview briefing is scheduled at 1 p.m. CDT Saturday, followed by a tour of astronaut training facilities at JSC. A press conference with officials of Canada's National Research Council is tentatively set for that afternoon.

August 27, 1984
Interviews with Garneau and a photo opportunity with 41-G commander Robert L. Crippen begin at 9 a.m. Sunday, followed at 1:30 p.m. by a 41-G flight crew press conference.

News media representatives who plan to attend the events should call the JSC newsroom at (713) 483-5111 for accreditation and interview scheduling.

#  #  #
NOTE TO EDITORS: STS 41-G PRE-FLIGHT EVENTS DELAYED

The mission overview briefing and astronaut press conference for Space Shuttle mission 41-G, originally scheduled for Sept. 1 and 2, respectively, have been moved one day because of the launch delay in flight 41-D.

The mission overview briefing will begin at 1 p.m., Sunday, Sept. 2 at the Johnson Space Center in Houston. Participants will include Rich M. Swalin of the Mission Planning and Analysis Division and Wayne A. Eaton of the Payload Integration Office at JSC. Karl Doetsch, director of the National Research Council of Canada, also will take part.

A press conference with the astronaut crew and payload specialists will begin at 1:30 p.m. Monday, Sept. 3.

Both events will take place in Room 135, Bldg. 2, at JSC.

# # #

August 30, 1984
NOTE TO EDITORS: STS 41G-BACKGROUND EVENTS DELAYED

Pre-flight media events for Space Shuttle mission 41-G, originally scheduled for Saturday and Sunday, Sept. 1 and 2 at the NASA Johnson Space Center in Houston have been delayed one day due to the launch slip of mission 41-D.

A mission overview briefing, tour of JSC facilities, crew press conference and interviews will hold to the same time of day, but move one day later to fit in with the events of the 41-D mission currently underway.

The mission overview briefing with Richard M. Swalin of the Mission Planning and Analysis Division, Wayne A. Eaton of the Payload Integration Office, both at JSC, and Karl Doetsch, director of the National Research Council of Canada, will begin at 1 p.m. Sunday in Room 135 of Bldg. 2.

Television and film interviews with payload specialist Marc Garneau of Canada will begin at 8:30 a.m. Monday in Bldg. 9A at JSC. A photo opportunity with Garneau and Shuttle Commander Robert Crippen will begin at 10 a.m. in the same location.
Writing press interviews will begin later in the morning in Bldg. 2, followed by a crew press conference in Room 135 of that building. Some additional brief television interviews with other members of the NASA astronaut crew may be held later in the day.

Media who would like to participate should call the JSC newsroom, (713) 483-5111, for accreditation.

# # #
NOTE TO EDITORS: 41-D POSTFLIGHT PRESS CONFERENCE

The crew of the recently completed 41-D mission will meet with the news media in a postflight news conference at 1 p.m. CDT Wednesday, Sept. 12 in Bldg. 2 at the Johnson Space Center.

Commander Henry Hartsfield, Pilot Michael Coats, Mission Specialists Judith Resnik, Richard Mullane, Steven Hawley and Payload Specialist Charles Walker will discuss their six-day spaceflight. For more information, call the JSC Public Information Office at (713) 483-5111.

# # #
NASA News

The NASA Johnson Space Center Friday will open a forward base of operations for some of its training and cargo aircraft at a leased hangar at the El Paso International airport.

The agency's unusual, large-volume cargo aircraft, the "Super Guppy," and Shuttle Training Aircraft will be maintained by a permanent staff at the facility. Previously, NASA planes operated as transient aircraft through El Paso while flying in and out of the Shuttle contingency landing field, Northrup Strip, at White Sands, New Mexico.

The facility will allow for more efficient maintenance of the aircraft through El Paso as well as provide a more favorable climate while they are on the ground. Northrop Worldwide Aircraft Services, Inc., which performs maintenance for NASA aircraft based in Houston, will service the El Paso facility. No personnel transfers are planned.

El Paso city officials will welcome NASA personnel and the aircraft in a ceremony Friday.

--more--

September 20, 1984
The Super Guppy and three STAs will be permanently based at El Paso. Two-place T-38 trainer jets will be serviced there while making flights to Northrup Strip. The STAs and Super Guppy previously were maintained at Ellington Field in Houston.

The STAs are Grumman twin-engine jets equipped to fly landing approaches like a Space Shuttle returning from orbit. Astronaut pilot gain proficiency flying Shuttle-like approaches to primary and contingency landing sites.

The Super Guppy is a 30-year-old modified KC-97J with a 25-foot inside diameter cargo hold and is used for ferrying oversize Space Shuttle cargos and aerospace parts.

# # #
SUPER GUPPY FACT SHEET

NASA's Super Guppy aircraft, operated by the Johnson Space Center from El Paso International Airport, is a Boeing KC97J, specially modified to carry oversize cargo including Space Shuttle payloads.

The Super Guppy is one of two in existence, originally manufactured in the 1950s and modified in 1964 to their current "balloon fuselage" shape. The other aircraft is operated in Europe, carrying aerospace parts. Both were rebuilt by the former Aerospace Lines (now Tracor) of Santa Barbara, California.

The aircraft has a wingspan of 141 feet and an overall length of 117 feet. The Super Guppy is powered by four Pratt and Whitney turboprop engines. It carries up to 40,000 pounds of cargo and has an interior maximum diameter of 25 feet. NASA purchased the plane and spare parts from Aerospace Lines in 1978 for approximately $2.5 million. Since that time it has flown approximately 1200 hours and hauled a million pounds of cargo.

The flight crew is usually four people--a pilot, co-pilot and two flight engineers. Occassionally, a fifth crew member is required as a cargo master.

#  #  #

Sept. 20, 1984
FLIGHT CONTROL OF 41-G

Flight control of Space Shuttle mission 41-G, set for launch October 5 from the Kennedy Space Center, Florida, will be virtually identical to that of other recent Shuttle missions.

The third floor control room, configured to provide secure operations for Department of Defense flights, will be used. The newly upgraded second floor flight control room was used for the first time on STS 41-D in August. Mission operations generally will alternate between the two rooms now that both are operational.

Lead flight director for 41-G is John Cox. Cox will be serving as a lead flight director for the first time, although he has been a flight director on seven previous Shuttle missions. Cox has additional responsibilities for prelaunch planning and coordination as well as other leadership and management responsibilities during the mission.

Flight director of the ascent team is Jay H. Greene who has similar experience on other missions. New flight director Cleon Lacefield will lead the entry team and the Orbit 1 flight control team. Granville A. Pennington, also serving his first mission as a flight director, will lead the planning team.
A full-service Payload Operations Control Center will be manned on the second floor of Building 30, providing a base of operations for the principal investigators of all payloads except the Earth Radiation Budget Satellite.

Control and command of the ERBS will be through a remote POCC at the Goddard Space Flight Center, Greenbelt, Md. The remote POCC will function as it did for the Solar Maximum satellite rescued on flight 41-C.

Specific console positions in the Flight Control Room, their call signs and functions are:

Flight Director (Flight) - has overall responsibility for the conduct of the mission and real-time decision-making.

Capsule Communicator (CAPCOM) - Communicates with the flight crew on orbit.

Data Processing Systems Engineer (DPS) - Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.

Electrical, Environmental, Consumables and Mechanical Systems Engineer (EECOM) - Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, transducers and lighting.

Remote Manipulator System, Mechanical and Upper Stage Systems Officer (RMU) - Monitors mechanical systems such as auxiliary power units, hydraulic systems, payload bay doors, vents and vent doors and the Remote Manipulator System.

Flight Dynamics Officer (FIDO) - Responsible for monitoring powered phase of the mission, orbital events and trajectories. Monitors vehicle energy levels during entry.

Guidance Officer (Guidance) - Monitors onboard navigation and guidance software.

Flight Surgeon (Surgeon) - Responsible for advising the flight director of the crew's health.
Booster Systems Engineer (Booster) - Responsible for monitoring the vehicle's main engine and solid booster propulsion systems during the ascent phase of the flight and monitoring the purging system before entry.

Propulsion Systems Engineer (Prop) - Monitors the status of the reaction control system and orbital maneuvering system engines during all phases of flight.

Guidance, Navigation and Control Systems Engineer (GNC) - Responsible for all inertial navigation systems hardware, radio navigation systems hardware, radio navigation aids and digital autopilot systems.

Ground Control (GC) - Responsible for configuring for acquisition or loss of signal and status of ground support equipment.

Integrated Communications Systems Engineer (INCO) - Responsible for onboard communications system configuration.

Operations Integration Officer (OIO) - Implements mission control procedures and coordinates and controls group displays and clocks in the control center.

Flight Activities Officer (FAO) - Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) - Coordinates all payloads activities with the POCC (payload operations control center).

Personnel assigned to Mission 41-G flight control teams follow:
<table>
<thead>
<tr>
<th>Role</th>
<th>Ascent/Entry/Orbit 1</th>
<th>Orbit 2</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Director</td>
<td>J. H. Greene (ascent)</td>
<td>J.T. Cox (lead)</td>
<td>G. A. Pennington</td>
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<tr>
<td></td>
<td>T.C. Lacefield (entry/orbit 1)</td>
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<tr>
<td>CAPCOM</td>
<td>J. Blaha (ascent)</td>
<td>D.Hilmers</td>
<td>J. Blaha</td>
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<td></td>
<td>R. McNair (orbit 1)</td>
<td>G. Nelson (EVA)</td>
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<td>Booster</td>
<td>J.L. Borrer</td>
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<td>GC</td>
<td>J. Wells (ascent)</td>
<td>C. R. Capps</td>
<td>D. E. Halter</td>
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<td></td>
<td>J. Snyder (ascent)</td>
<td>N. R. Talbott</td>
<td>M. Marsh</td>
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<td></td>
<td>C. R. Capps (entry)</td>
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<td></td>
<td>N. R. Talbott (entry)</td>
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<tr>
<td>Surgeon</td>
<td>J. Logan (all crew awake periods)</td>
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<tr>
<td>OIO</td>
<td>J. Wallace (ascent)</td>
<td>W. Boatman</td>
<td>J. Wallace</td>
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<td></td>
<td>K. Anson (entry/orbit 1)</td>
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<td>Payloads</td>
<td>T. N. Bruce</td>
<td></td>
<td>M. A. Brekke</td>
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<tr>
<td>Fido</td>
<td>B. H. Sweet (ascent)</td>
<td>P. J. Burley</td>
<td>R. H. Cohen</td>
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<td></td>
<td>B. D. Perry (orbit 1)</td>
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<td>G. T. Oliver (entry)</td>
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<td>Guidance</td>
<td>T. E. Dyson (ascent)</td>
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<td>W. S. Presley (entry)</td>
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<tr>
<td>FAO</td>
<td>T. L. Vollrath</td>
<td>W. R. Holmberg</td>
<td>K. F. Ehlers</td>
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<tr>
<td></td>
<td>(ascent/orbit 1)</td>
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<tr>
<td>DPS</td>
<td>G.J. Harbaugh</td>
<td>L.A. Cheshire</td>
<td>M. Darnell</td>
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<td>EECOM</td>
<td>R.J. Rector</td>
<td>M.D. Louis</td>
<td>B.N. Pearson</td>
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<td>GNC</td>
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<td>C.K. Alford</td>
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<tr>
<td>INCO</td>
<td>R.E. Castle</td>
<td>H. Black</td>
<td>R.K. Paolo</td>
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<td>Prop</td>
<td>W.H. Gerstenmaier</td>
<td>L.J. Schmitt</td>
<td>C.D. Young</td>
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<tr>
<td>RMU</td>
<td>R.L. Lofton</td>
<td>G.H. Ulrich</td>
<td>D.P. Huntsman</td>
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# # #
IN FLIGHT PRESS CONFERENCE

A press conference with the 41-G crew will be conducted tomorrow from 10:38 a.m. to 11:28 a.m. CDT. The first segment will originate overseas.

The U.S. - Canadian news conference will be held in Room 135, Building 2 at the Johnson Space Center.

The traditional format will be used, allowing questions from all media recognized by the moderator.

The following ground rules will apply:

1. Participating media should be in place at 10:30 CDT.

2. Single questions for all seven crew members will not be allowed. One question may be directed to two crew members with common assignments (i.e., commander and pilot; two EVA astronauts).

3. Media participants will be allowed only one follow-up question with each question asked.

4. Questions should be brief and to-the-point.

5. Questions asked in French must be prefaced with a statement in English that the question will be asked in French.

# # #
NASA ANNOUNCES FLIGHT ASSIGNMENTS AND CHANGES

The National Aeronautics and Space Administration today named five astronauts as the crew of Space Shuttle mission 51-I, scheduled for launch in August 1985, and changed one previously announced assignment on another flight.

The 51-I mission will be commanded by Navy Cmdr. Robert L. "Hoot" Gibson, who served as pilot on Space Shuttle flight 41-B. Marine Lt. Col. Charles F. Bolden Jr. was named as pilot.

Mission specialists are Drs. Franklin R. Chang-Diaz, Steven A. Hawley and George D. Nelson. Flight 51-I will be Chang-Diaz's first trip into space. Hawley was a mission specialist on flight 41-D and Nelson flew as a mission specialist on flight 41-C.

The seven-day mission, using the orbiter Columbia, will carry two communications satellites, the Syncom IV-4 and the American Satellite Company's ASC-1, and a materials processing experiment designated MSL-2.

In a crew change announcement, Air Force Col. Roy D. Bridges Jr. has replaced S. David Griggs as pilot on Shuttle flight 51-F scheduled for launch in April 1985. Griggs also has been assigned as a mission specialist on flight 51-E scheduled to fly in February. The reassignment was made because the proximity of those two flights allowed insufficient time for training.

Flight 51-E is planned to carry the second Tracking and Data Relay Satellite (TDRS) and another communications satellite, the Telesat-I. Flight 51-F is the Spacelab 2 mission.
Gibson was born in Cooperstown, N.Y., but considers Lakewood, Calif., his hometown. He joined NASA in 1978 after serving as a fighter pilot.

Bolden, a native of Columbia, S.C., served as a fighter pilot and test pilot prior to joining NASA in 1980.

Chang-Díaz, born in San Jose, Costa Rica, joined NASA with the astronaut class of 1980. His education is in mechanical engineering and applied plasma physics.

A native of Charles City, Iowa, Nelson flew the manned maneuvering unit on Shuttle mission 41-C which retrieved and repaired the Solar Maximum satellite in April of this year. He came to NASA in 1978.

Hawley flew as a mission specialist on flight 41-D in August 1984. An astronomer, he joined NASA in 1978. He was born in Ottawa, Kan., but considers Salina, Kan., to be his hometown.

Bridges was born in Atlanta, Ga., and served as a fighter pilot and test pilot. He was named an astronaut candidate in 1980. This will be his first space flight.

Griggs was born in Portland, Ore., and served as a Navy fighter pilot and a NASA staff pilot prior to his selection as an astronaut candidate in 1978. Flight 51-E will be his first space mission.
NOTE TO EDITORS: STS 41-G CREW POST-FLIGHT PRESS CONFERENCE SET

The astronaut crew from Space Shuttle mission 41-G which landed Saturday at the Kennedy Space Center, Florida, after an eight day flight, will hold a press conference Thursday, October 18 at 1 p.m. at the NASA Johnson Space Center in Houston.

Participants are Shuttle commander Robert L. Crippen, pilot Jon A. McBride, mission specialists Sally K. Ride, Kathryn D. Sullivan, David C. Leestma and payload specialists Marc Garneau and Paul D. Scully-Power.

# # #

October 14, 1984
Robert L. Crippen, veteran Space Shuttle commander, has been named deputy director of Flight Crew Operations at NASA's Johnson Space Center in Houston.

The appointment was effective October 15. Crippen will serve as deputy to George W.S. Abbey. He will remain an active astronaut.

Crippen, a Navy Captain, was commander of Shuttle mission 41-G this month. He was pilot on STS-1, the first Space Shuttle flight, and commanded STS-7 and 41-C, the Solar Maximum satellite rescue mission. He joined NASA in September, 1969, after a three-year assignment with the Air Force's Manned Orbiting Laboratory program.

Born in Beaumont, Texas, Sept. 11, 1937, Crippen was graduated from the University of Texas in 1960 with a bachelor of science degree in aerospace engineering.

--more--

October 17, 1984
He received his commission through the Navy's Aviation Officer Program at Pensacola, Fla., and continued flight training in Florida and Texas. He served as a fighter pilot assigned to the carrier USS Independence from June 1962 to November 1964.

He later attended the Air Force Aerospace Research Pilot School at Edwards Air Force Base, Calif., where he remained as an instructor pilot until his selection in October 1966 to the MOL program.

His other work at NASA included participation in the Skylab Medical Experiments Altitude Test and serving as a member of the astronaut support crew for Skylab missions 2, 3, and 4 and the Apollo-Soyuz Test Project.

Crippen is married to the former Virginia E. Hill. They have three daughters.

#  #  #
Flight control of Space Shuttle mission 51-A, scheduled for launch from the Kennedy Space Center, Florida, no earlier than November 7, will be identical to recent Shuttle missions.

Three teams of flight controllers will operate from the second floor control room in Building 30 at NASA's Johnson Space Center in Houston, monitoring the condition of the spacecraft and crew, planning flight events and troubleshooting any problems that arise during the mission.

Lead flight director for 51-A is Larry Bourgeois. He will be serving his first mission as lead, but has been a flight director on Shuttle missions 7, 9 and 11. Bourgeois has additional responsibilities for prelaunch planning and coordination, as well as other leadership and management duties during the mission.

Randy Stone, who has served as lead flight director for previous missions, will direct the Orbit 2 team.
Directing the ascent will be Jay H. Greene who has directed launch phase flight control on previous missions. Cleon Lacefield, who served as orbit one and entry flight director for mission 41-G, will handle the entry team for this flight. New flight director Bill Reeves will lead the planning team.

Specific console positions in the Flight Control Room, their call signs and functions are:

Flight Director (Flight) - has overall responsibility for the conduct of the mission and real-time decision-making.

Capsule Communicator (CAPCOM) - Communicates with the flight crew on orbit.

Data Processing Systems Engineer (DPS) - Responsible for data processing hardware and executes software for the vehicle's five onboard general purpose computers.

Electrical, Environmental, Consumables and Mechanical Systems Engineer (EECOM) - Monitors cryogenics levels for fuel cells and propulsion systems, cooling systems, AC and DC power distribution systems, instrumentation systems, transducers and lighting.

Remote Manipulator System, Mechanical and Upper Stage Systems Officer (RMU) - Monitors mechanical systems such as auxiliary power units, hydraulic systems, payload bay doors, vents and vent doors and the Remote Manipulator System.

Flight Dynamics Officer (FIDO) - Responsible for monitoring powered phase of the mission, orbital events and trajectories. Monitors vehicle energy levels during entry.

Guidance Officer (Guidance) - Monitors onboard navigation and guidance software.
Flight Surgeon (Surgeon) - Responsible for advising the flight director of the crew's health.

Booster Systems Engineer (Booster) - Responsible for monitoring the vehicle's main engine and solid booster propulsion systems during the ascent phase of the flight and monitoring the purging system before entry.

Propulsion Systems Engineer (Prop) - Monitors the status of the reaction control system and orbital maneuvering system engines during all phases of flight.

Guidance, Navigation and Control Systems Engineer (GNC) - Responsible for all inertial navigation systems hardware, radio navigation systems hardware, radio navigation aids and digital autopilot systems.

Ground Control (GC) - Responsible for configuring for acquisition or loss of signal and status of ground support equipment.

Integrated Communications Systems Engineer (INCO) - Responsible for onboard communications system configuration.

Operations Integration Officer (OIO) - Implements mission control procedures and coordinates and controls group displays and clocks in the control center.

Flight Activities Officer (FAO) - Responsible for flight crew checklists, procedures and timelines.

Payloads Officer (Payloads) - Coordinates all payloads activities with the POCC (payload operations control center).

Personnel assigned to Mission 51-A flight control teams follow:

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<table>
<thead>
<tr>
<th>POSITION</th>
<th>A/E/ORBIT 1</th>
<th>ORBIT 2</th>
<th>PLANNING</th>
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</thead>
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<tr>
<td>Flight Director</td>
<td>J.H. Greene/T.C. Lacefield</td>
<td>B.R. Stone</td>
<td>W.D. Reeves</td>
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<tr>
<td></td>
<td>L.S. Bourgeois</td>
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<td>CAPCOM</td>
<td>R.N. Richards (A&amp;E)/D.C. Hilmers(01)</td>
<td>R.E. McNair</td>
<td>R.C. Springer</td>
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<tr>
<td>Surgeon*</td>
<td>Drs. J. Logan or D. Stewart during active phases</td>
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<tr>
<td>OIO</td>
<td>J.E. Wallace</td>
<td>C.L. Blacknall</td>
<td>A.J. Johnson</td>
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<tr>
<td>Payloads</td>
<td>J. Apt</td>
<td>T.N. Bruce</td>
<td>M.K. Fawcett</td>
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<tr>
<td>FIDO</td>
<td>B.H. Sweet(A)/G.T. Oliver(E)</td>
<td>C.D. Epp</td>
<td>R.H. Cohen</td>
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<td>B.L. Jones (01)</td>
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<td>Guidance</td>
<td>W.S. Presley(A&amp;E)/E.M. Lancaster(01)</td>
<td>D.P. Kunkel</td>
<td>W.S. Presley</td>
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<td>J.M. Howard</td>
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<tr>
<td>GC*</td>
<td>J. Wells &amp; J. Snyder (A)/J. Conditt and W. Murray (orbit)/D. Halter &amp; M. Marsh (E)</td>
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<td>*staffing does not follow flight control team shift schedule</td>
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# # #
Astronaut Donald H. Peterson has announced his intention to resign from NASA by the end of the year.

Peterson was selected as an astronaut in August 1969. He was a crewmember on the sixth Space Shuttle mission in April 1983. That was the first flight of the orbiter, Challenger, during which he and astronaut Story Musgrave performed the first shuttle-era extra-vehicular activity.

Peterson, a retired Air Force colonel, plans to work as an aerospace industry consultant. He and his family will continue to reside in the Houston area.

-- end --

November 15, 1984
NOTE TO EDITORS: 51-A CREW PRESS CONFERENCE SET NOV. 28.

The astronaut crew from Space Shuttle mission 51-A will hold a postflight press conference beginning at 10 a.m. Wednesday, Nov. 28, at the NASA Johnson Space Center in Houston.

Shuttle Commander Frederick H. Hauck, pilot David M. Walker, and mission specialists Joseph P. Allen, Anna L. Fisher and Dale A. Gardner will review highlights of their recently completed flight.

The conference will be in room 135 of Building 2.

November 20, 1984
NOTE TO EDITORS: SPACELAB D-1 CREW PHOTO SESSION, Q&A

The eight-member crew for Space Shuttle mission 61-A, the first dedicated German scientific flight, will be available for photos and a brief question and answer period beginning at noon Dec. 12 at the NASA Johnson Space Center in Houston.

The crew will break from their first training opportunity together for the event in Building 9A.

The mission, scheduled for launch in October, 1985 from Kennedy Space Center, Florida, will be designated Spacelab D-1. The largest crew to ever fly in space, five NASA astronauts, two German payload specialists and one Dutch payload specialist, will orbit the Earth for seven days.

The crew includes commander Henry W. Hartsfield, pilot Steven E. Nagel, mission specialists James F. Buchli, Guion S. Bluford, and Bonnie J. Dunbar, and payload specialists Reinhard Furrer, Ernst Messerschmid and Wubbo Ockels.

# # #

December 6, 1984
French payload specialists Patrick Baudry and Jean-Loup Chretien will be available Dec. 10 and 11 for photos and brief interviews at the NASA Johnson Space Center in Houston.

Baudry is scheduled to fly on Space Shuttle mission 51-E to be launched from the Kennedy Space Center, Florida, in February. He will conduct an experiment known as FEE, the French Echocardiography Experiment. Chretien is the backup payload specialist for that flight.

Events Monday include a tour and briefing in the Mission Control Center at 9 a.m. and a tour of the Weightless Environment Training Facility, tentatively set for 3 p.m.

The two payload specialists will be available for photos and will answer questions from 8 a.m. to noon Tuesday at the Crew Systems Trainer in Building 9A. Mission 51-E commander Karol J. Bobko and mission specialist S. David Griggs will be present from 9:30 to 10:30 a.m. in Building 9A.

# # #

Dec. 7, 1984
PUBLIC INFORMATION CHIEF TO RETIRE

John E. McLeaish, 55, Chief of the Johnson Space Center's Public Information Branch for the past 16 years, is retiring NASA next month.

McLeaish, who has directed 24-hour around-the-clock News Center operations for the last 29 manned missions, has more than 30 years federal service. A replacement has not been named.

He said he has no plans to leave Houston.

McLeaish began his service in 1952 serving as an Air Force navigator and Information Officer until 1959 when he joined a publishing firm in Dallas.

In 1961, he became Information Officer at Ellington Air Force Base and the following year became an Information Specialist at the NASA Manned Spacecraft Center, now the Johnson Space Center. He served as Deputy Chief of Public Information until 1968 when he was named to his present post.

McLeaish served as NASA spokesman locked in quarantine with the Apollo 11 crew following the first lunar landing mission. He has served as a Mission Control commentator for Gemini, Apollo, Skylab and Shuttle missions.

He was awarded the NASA Exceptional Service Medal for Skylab news operations and shared in the Presidential Medal of Freedom award with Mission Control personnel as the result of being mission commentator at the time of the Apollo 13 explosion.

He was born in Houston and reared in Weslaco, TX. He attended Rice University, and received a Bachelor of Arts degree in Journalism from the University of Houston.
NOTE TO EDITORS: PHOTO OPPORTUNITY WITH SENATOR JAKE GARN

A photo opportunity and informal question and answer session with U.S. Sen. Jake Garn (R-Utah) will begin at 12:30 p.m. Thursday, Dec. 20, at the NASA Johnson Space Center in Houston.

Senator Garn will be in Houston to meet with crew trainers and other officials to familiarize himself with future training activities for his role on a Space Shuttle mission. No specific flight date has been announced.

The photo session and Q&A will be held in Building 9A and will last for 40 minutes.

#  #  #

December 17, 1984
MATTINGLY TO LEAVE ASTRONAUT CORPS FOR NAVY POST

Astronaut Thomas K. Mattingly II (Capt. USN) has been named director, Space Program of the Naval Electronic Systems Command, Arlington, Va., effective early next year, NASA and the Navy announced today.

Designated a NASA astronaut in April 1966, Mattingly flew in space as command module pilot on Apollo 16, April 16-27, 1972, and as spacecraft commander for STS-4, the fourth Shuttle flight, June 27-July 4, 1982.

In other astronaut activities, he served on the astronaut support crews for the Apollo 8 and 11 missions. He was the astronaut representative for the development and testing of the Apollo spacesuit and backpack (EMU). Mattingly also served as the head of the Astronaut Office DOD Support Group.
Born in Chicago, Ill., on March 27, 1936, Mattingly received a bachelor of science degree from Auburn University and was commissioned as an ensign, U. S. Navy, both in 1958. Designated as a naval aviator in 1960, Captain Mattingly has served tours with VA-35 and VAH-11 in USS Saratoga and USS Franklin D. Roosevelt. He has more than 7,200 flight hours as a naval aviator, including 5,000 hours in jet aircraft.

NASA Administrator James M. Beggs said of Mattingly: "America's civil space program has profited immensely from having on tap the skill and expertise of military career people like Ken. We are proud of them all and pleased to have them on our team."

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