IF.5 #10

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Debra J. Rahn
Headquarters, Washington, D.C.
(Phone: 202/453-8590)

Jan. 8, 1985

RELEASE NO: 85-4

NASA/USAF DELAY FIRST VANDENBERG SHUTTLE LAUNCH

The National Aeronautics and Space Administration and the U.S. Air Force have jointly agreed to delay the first Space Shuttle launch from the Vandenberg Air Force Base, Calif., until no earlier than Jan. 29, 1986. This mission was originally scheduled for Oct. 15, 1985.

In early December 1984, NASA and Air Force officials conducted an extensive review of the readiness of the Vandenberg Space Shuttle launch facilities, the DOD payload, and an assessment of the Space Shuttle program schedule impact of the recent tile problems on the orbiter Challenger. In the interest of the overall Space Shuttle program, a joint decision was made following the review to delay the launch.

This decision was based primarily on the importance of maintaining the current Shuttle manifest and to insure adequate margin in the development of the DOD payload for the initial Vandenberg launch.

NASA and the Air Force specifically agreed that:

o Discovery will be delivered to Vandenberg in early September 1985 instead of early May as originally scheduled.

o Discovery will be retained in an operational status at the Kennedy Space Center and be manifested for two additional flights in mid-1985 to accommodate the schedule impact due to the Shuttle tile problems.

o NASA will deliver other Shuttle flight hardware (filament-wound cases and external tank) as soon as possible to Vandenberg. This provides maximum schedule flexibility for the earliest Vandenberg launch.

- more -

The Vandenberg launch site activation continues to progress. Previous problems with the pipe welds and cleanliness have been corrected. Ground systems tests are currently underway in preparation for initial checkout using the orbiter Enterprise. Deliveries of an external tank and solid rocket booster skirt assemblies have been made ahead of schedule.

NASA is continuing discussions with commercial customers and Department of Defense officials to finalize the remainder of the 1985 Shuttle manifest. A complete manifest covering August 1985 through 1989 is expected to be available in the near future.

- end -

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F.5 #10

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Debra J. Rahn
Headquarters, Washington, D.C.
(Phone: 202/453-8590)

February 21, 1985

RELEASE NO: 85-27

NASA SCHEDULES LAUNCH DATE FOR 51-E SHUTTLE MISSION

NASA today announced a launch date of March 4, 1985, for the 51-E Space Shuttle mission. Launch is set for 8:31 a.m. EST Monday from the Kennedy Space Center (KSC) with landing on March 8, 1985, at approx. 9:27 a.m. EST at KSC.

The decision to launch on March 4 was based on the results of today's Flight Readiness Review. The additional time is required in the schedule to complete cargo integration and orbiter systems testing prior to launch.

Highlights of the four-day 51-E mission include the deployment of the second Tracking and Data Relay Satellite (TDRS-B) and Telesat Canada's Anik C1 communications satellite; the French Echocardiograph Experiment and the French Postural Experiment.

The crew for the 51-E mission is a seven-member team of commander Karol J. Bobko, pilot Donald E. Williams, three mission specialists--M. Rhea Seddon, S. David Griggs and Jeffrey A. Hoffman--and two payload specialists-Patrick Baudry and E. J. "Jake " Garn.

The current 51-E launch date does not change the planned launch date of no earlier than March 19, 1985 for the STS 51-D mission to retrieve the Long Duration Exposure Facility and to launch the Navy Syncom satellite.

# # # # #

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

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Don Bane
Jet Propulsion Laboratory, Pasadena, Calif.
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March 8, 1985

RELEASE NO: 85-36

PLUTO AND ITS MOON PROVIDING RARE DATA TO ASTRONOMERS

A rare alignment of Pluto and its only known satellite, Charon, in which they take turns eclipsing each other, is giving astronomers a new tool to study the solar system's most distant planet.

Astronomers at NASA's Jet Propulsion Laboratory (JPL), the University of Hawaii, the University of Arizona and the University of Texas are observing Charon as it alternately moves in front of and then behind Pluto in a rare series of eclipses that occur every 124 years or twice in each orbit of the sun.

Each time Charon passes between Pluto and Earth, a portion of the surface of Pluto is blocked from view, resulting in a dimming of the combined light from the two bodies. And when Charon moves behind Pluto, their roles are reversed.

Measurements of the times, durations and changes in brightness of the events will allow astronomers to calculate the masses, diameters and densities of both Pluto and Charon. A more accurate estimate of the density of Pluto and Charon would allow astronomers to develop models of what the planet and satellite are made of. Estimates of Pluto's density now have an uncertainty of 50 percent, which is not accurate enough to derive information on its composition. Pluto's density is thought to be about that of water. That would make it the lowest-density planet known that has a solid surface.

- more -

The new measurements indicate that the combined brightness of Pluto and Charon diminishes by four percent during the eclipses. The dimming lasts about two hours and is superimposed on a 30 percent brightness change that occurs over a 6.4-day period. The longer change in brightness happens because one hemisphere of Pluto is 30 percent brighter than the other.

Very little is known about Pluto and even less about Charon. No one knew, for example, when or even if the five-year-long series of eclipses would begin. (This is the first opportunity to observe the eclipse series since Pluto was discovered in February 1930.) So that they would not miss any of the earliest events, the astronomers established an observing network. The network is made up of astronomers at McDonald Observatory in Texas, the University of Arizona observatories, Palomar Observatory in California and Mauna Kea Observatory in Hawaii.

The first to see and measure an eclipse of Pluto by Charon was Dr. Edward Tedesco of JPL, while observing with Dr. Bonnie Buratti, also of JPL, at Palomar on Jan. 16, 1985. On Feb. 17 Richard Binzel observed another eclipse from the University of Texas' McDonald Observatory. And Dr. D.J. Tholen observed a third eclipse on Feb. 20 from the Mauna Kea Observatory.

Astronomers discovered Charon in 1978. Charon's orbital motion around Pluto led the astronomers to realize that Pluto is tipped on its side, in much the same way as Uranus, so that Pluto alternately points its north and then its south pole toward the sun.

Pluto circles the sun in a highly elliptical orbit that moves inside of Neptune's orbit and then far beyond it. It has been inside the orbit of Neptune since 1979 and will be there until 1999. Its average distance from the sun is 4 billion miles, almost 40 times greater than Earth's. Pluto was discovered in February 1930 by Clyde Tombaugh at the Lowell Observatory. Charon was discovered in 1978 by James Christy at the U.S. Naval Observatory. Because it circles the sun only once in 248 years, Pluto hasn't completed one orbit since its discovery. Their great distance and relatively small sizes make Pluto and Charon among the most difficult objects to observe in the solar system.

- end -

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NASA News

National Aeronautics and
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Washington, D.C. 20546
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For Release:

March 27, 1985

Sarah Keegan
Headquarters, Washington, D.C.
(Phone: 202/453-8590)

RELEASE NO: 85-43

NASA ANNOUNCES LAUNCH DATE FOR SHUTTLE MISSION 51-D

NASA today announced a launch date of no earlier than April 12, 1985, for the 51-D Space Shuttle mission. There are two windows for launch on that date: one from 8:04 a.m. to 8:18 a.m. EST and one from 8:45 a.m. to 9:00 a.m. EST. Landing will occur on April 17, 1985, at approximately 8:14 a.m. EST at the Kennedy Space Center, Fla.

Highlights of the five-day Discovery mission include the deployment of Canada's Telesat (Anik C1) communications satellite and the Hughes Syncom IV or LEASAT, as well as the flight of the McDonnell Douglas Continuous Flow Electrophoresis System.

The crew for the 51-D flight is the seven-member team of commander Karol J. Bobko, pilot Donald E. Williams, three mission specialists -- M. Rhea Seddon, S. David Griggs and Jeffrey A. Hoffman -- and two payload specialists, Charles D. Walker and E. J. "Jake" Garn.

- end -

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NASA News

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Washington, D.C. 20546
AC 202-453-8400

Barbara Selby
Headquarters, Washington, D.C.
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For Release:
March 28, 1985

RELEASE NO: 85-44

NASA INVENTORS OF THE YEAR ANNOUNCED

The National Aeronautics and Space Administration today presented its 1984 Inventor of the Year Award to Dale M. Kornfeld of Marshall Space Flight Center, Huntsville, Ala., and John W. Vanderhoff, Mohammed S. El-Asser and Fortunato J. Micale, all of Lehigh University, Bethlehem, Pa. The inventors were honored for their "Process for Preparation of Large-Particle Size Monodisperse Latexes."

At a ceremony at NASA Headquarters in Washington, D.C., the inventors were presented an Inventor of the Year plaque and certificate, a Space Act Award certificate and a monetary award. Kornfeld and Vanderhoff each received $2,500; El-Asser and Micale, $2,000. Edward Sudol, Chi-Ming Tseng and Anthony Silwanowicz, also of Lehigh, will each receive a $2,000 Space Act Award. These three were contributors but not considered as inventors.

The Monodisperse Latex Reactor processor, an experiment flown aboard the Space Shuttle, has produced microspheres in zero gravity in sizes ranging from 5 to 30 micrometers. The maximum size particles that can be produced on Earth, with the required standards of quality and uniformity, is about 2 to 3 micrometers.

Microspheres can be used in calibrating sensitive scientific instruments such as microscopes, filters and particle counters. Medical uses include identification of cancer and glaucoma and the study of the transport of materials inside living organisms. Industrial applications include the production of finely-ground products such as paint pigments, inks, toners, explosives and other powder materials.

In July 1984, a major step was taken toward making the microspheres commercially available, when NASA presented 15 grams of 10-micrometer particles to the Commerce Department's National Bureau of Standards (NBS). NBS will certify the microspheres as "standard reference material" and make them available to purchasers.

-more-

NASA has submitted the names of the four inventors to the Intellectual Property Owners, Inc. (IPO) as nominees for national recognition. IPO, in cooperation with the U.S. Patent and Trademark Office, conducts National Inventor of the Year competition.

In 1978, Barbara Askins, also of Marshall, was selected as the National Inventor of the Year for her invention of a practical autoradiographic image enhancement process.

Earlier this year, Philip A. Studer of Goddard Space Flight Center, Greenbelt, Md., was presented the NASA 1983 Inventor of the Year Award for his invention of a linear magnetic bearing.

-end-

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NASA News

National Aeronautics and
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Washington, D.C. 20546
AC 202-453-8400

Jim Kukowski
Headquarters, Washington, D.C.
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Carter Dove
Goddard Space Flight Center, Greenbelt, Md.
(Phone: 301/344-5565)

For Release:
March 29, 1985
10:00 a.m. EST

RELEASE NO: 85-45

ATS-1 DRIFTING OFF STATION...WILL END 18 YEARS OF SERVICE

After more than 18 years of service, NASA's first Applications Technology Satellite (ATS-1) has failed to respond to commands to correct its eastward drift from geostationary position over the Gilbert Islands in the western Pacific.

Robert O. Wales, ATS project operations director at NASA's Goddard Space Flight Center, Greenbelt, Md., reported that "the ground control station at Hawaii can no longer keep ATS-1 at its present location and it will likely drift out of a useful orbital position in the next 6 months."

Launched in December 1966, with an expected lifespan of 3 years, ATS-1 most recently has provided a voice and data communications capability to several information networks in the Pacific basin.

The Pan Pacific Education and Communication Experiments by Satellite (PEACESAT) program, currently the major user of ATS-1 services, will effectively dissolve with the eventual loss of the satellite. Educational, health, research, technology and community services have been transmitted through ATS-1 to 23 autonomous terminals located in Hawaii, Cook Islands, the Mariana and Caroline Islands, Western and American Samoa, the Marshall Islands, Melanesia, New Zealand and Australia.

ATS-1 has compiled a notable record of achievements during its lifetime:

- First transmission of full-Earth, cloud cover pictures from geosynchronous orbit--forerunner of the hemispheric weather pictures seen on TV (1967).

- o First transmission of real-time television pictures (Apollo 4 splashdown) from the mid-Pacific (1967).
- o Two-way communication tests with commercial airliners to determine aircraft orientation effects on satellite communications; a cooperative venture with the Federal Aviation Administration and the airlines (1967-1968).
- o Link-up between the U.S. and USSR scientists during an atmospheric, sea and ice condition experiment in the Bering Sea (1971).
- o Transmission of electrocardiographs from Hawaii to New Zealand and from Alaska to the University of Washington (1973).
- o Presentation of medical conferences over the PEACESAT network consisting of 12 nations and the University of Hawaii (1971-1978).

One of the most unique services provided by ATS-1 was its Alaskan "Doctor Call", praised by the medical world as the first innovative approach to rural medicine in the U.S. Through ATS-1, Public Health Service physicians were able to communicate daily with trained health aides in the remote Alaskan bush country. The aides had been trained as paramedics for 6 weeks at the Veterans Administration hospital in Fairbanks prior to their "Doctor Call" services in the remote villages.

The loss of ATS-1 will leave one other comparable satellite, ATS-3, in operation. It was launched in November 1967. Positioned in geosynchronous orbit over the Pacific Ocean, south of Mexico, ATS-3 covers the U.S., most of the Atlantic Ocean and a large part of the eastern Pacific, including Hawaii.

- end -

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Barbara Selby
Headquarters, Washington, D.C.April 15, 1985
(Phone: 202/453-8400)

RELEASE NO: 85-56 IMMEDIATE

NASA SELECTS TWO INDUSTRY TEAMS FOR JSC SPACE STATION WORK

The National Aeronautics and Space Administration has selected McDonnell Douglas Astronautics Co., a California division of McDonnell Douglas Corp., St. Louis, and Rockwell International, Space Station Systems Division, Downey, Calif., for fixed-price awards for definition and preliminary design (Phase B) of the structural framework and other elements of a permanently manned Space Station.

The contracts will be managed by NASA's Johnson Space Center, Houston. Work on the contracts will extend for 21 months. Industry teams selected for negotiations for the definition and preliminary design of other Space Station elements were announced by NASA on March 14.

The Johnson contracts will cover definition and preliminary design of the structural framework to which the various elements of the Space Station will be attached; interface between the Space Station and the Space Shuttle; mechanisms such as the remote manipulator systems; attitude control, thermal control, communications and data management systems; plan for equipping a module with sleeping quarters, wardroom and galley; and plan for extravehicular activity. The Request for Proposals indicated the value of each of the contracts could be $27 million.

In 1984, NASA began the development of a permanently manned Space Station pursuant to the directive in the State of the Union address from President Reagan.

# # #

April 15, 1985

IF.S #10

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

April 24, 1985

Charles Redmond
(202) 453-8590
Headquarters/Washington, D.C.

LAUNCH DATE FOR STS 51-B

NASA officials have selected 12:00 Noon EDT, April 29, as the launch time and date for STS mission 51-B, the Spacelab 3 flight. Officials also selected Dryden Flight Research Center, Edwards Air Force Base, Calif., as the primary end-of-mission landing site, with Kennedy Space Center, Fla., as an alternate. Landing is set for May 6 at 12:03 p.m. EDT.

The decision to choose Dryden over Kennedy was based on the recent landing experience following the STS 51-D mission where Discovery's right-hand braking systems locked up causing a tire to blow out during the landing. Landing conditions for this past mission included a crosswind -- the first experience at Kennedy with such conditions -- and a higher-than-usual sink rate.

The decision to land at Dryden will provide more safety margin for the Challenger's tires and brake system because of the availability of the unrestricted lakebed and the smoother surface. The Spacelab 3 payload will be a heavy return weight for an orbiter. Until all the many factors affecting the landing conditions are better understood, management has elected to choose the Dryden facility for the next landing.

The decision to land at Dryden for the next flight only will enable engineers to determine what corrective actions are appropriate before returning to the KSC runway for nominal end-of-mission landings.

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NASA News

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National Aeronautics and
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Kennedy Space Center, Florida 32899
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For Release:

James Kukowski
Headquarters, Washington, D.C
(Phone: 202/453-1754)

April 24, 1985

Steve Nesbitt
Johnson Space Center, Houston, Texas
(Phone: 713/483-5111)

RELEASE NO: 85-62

NASA SELECTS PAYLOAD SPECIALISTS FOR LIFE SCIENCES FLIGHTS

NASA has announced the selection of two payload specialists for the initial Spacelab Life Sciences (SLS-1) flight, and one of two payload specialists for the second flight, SLS-2.

The payload specialists for SLS-1 are Dr. Francis A. Gaffney, 37, an assistant professor of medicine and cardiology and director of echocardiography at the University of Texas Health Science Center, Southwestern Medical School, Dallas; and Dr. Robert W. Ward, 56, a veterinarian and professor of physiology and nutrition at Colorado State University, Ft. Collins.

The payload specialist for SLS-2 is Dr. Millie Hughes-Fulford, 39, an assistant professor of biochemistry at the Veterans Administration Hospital in San Francisco. Hughes-Fulford is the first woman to be selected by NASA as a prime payload specialist for a Space Shuttle flight.

The selections were made by NASA Administrator James M. Beggs on the recommendation of Dr. Burton I. Edelson, Associate Administrator for Space Science and Applications, and the Investigators Working Group, comprised of principal investigators for the flights.

"These two flights are the first fully dedicated life sciences missions to be flown aboard the Space Shuttle," Edelson said. "This is a significant effort in improving our knowledge of living beings in the space environment and it will be a major step in preparing men and women for life aboard the Space Station scheduled for launch in the early 1990s," he added.

A fourth payload specialist candidate, for the SLS-2 mission, will be selected shortly and will begin training with the three announced specialists in the near future.

Criteria for the selection included an advanced degree in life sciences or a medical degree and significant recent experience in laboratory research.

Nearly 50 candidates were nominated by the two flight's 23 principal investigators. The candidates underwent rigorous investigation by the group's Payload Specialist Selection Committee in late 1983. The final recommendations were made to NASA Headquarters in mid-April 1985.

SLS-1 is to be ready for launch aboard the Space Shuttle as early as spring 1986. SLS-2 is scheduled for an early 1987 launch.

The STS 61-D/SLS-1 mission will be commanded by veteran astronaut Vance Brand. Pilots will be David Griggs and Dr. John Fabian. The mission specialists will be Drs. Rhea Seddon and James Bagian.

The flight crew for the STS 71-G/SLS-2 mission is yet to be selected.

The two flights will conduct a variety of experiments in human and animal physiology and gravitational biology. Thirty major life sciences experiments will be conducted on the two flights.

The SLS-1 and SLS-2 missions are managed by Johnson Space Center, Houston, for NASA's Office of Science and Applications, Washington, D.C.

(END OF RELEASE; BIOGRAPHICAL INFORMATION FOLLOWS.)

BIOGRAPHICAL INFORMATION

FRANCIS A. GAFFNEY

Dr. Francis A. Gaffney is an assistant professor of medicine and cardiology and Director of Echocardiography at the University of Texas Health Science Center, Southwestern Medical School in Dallas. He has been a clinical and research cardiologist at the center since 1975.

Gaffney received a B.A. degree from the Univesity of California, Berkeley in 1968. He earned his degree in medicine at the University of New Mexico in 1972. Gaffney served his internal medicine residency at Metropolitan General Hospital in Cleveland from 1972 to 1975. In 1977 he earned a fellowship in cardiology at Parkland Memorial Hospital in Dallas.

Gaffney has had extensive experience in cardiovascular physiology research, including surgical procedures, isotope techniques, intensive care, plethysmography, exercise training and computers.

Gaffney, his wife, Shelia, and two children reside in Dallas.

ROBERT W. PHILLIPS

Dr. Robert W. Phillips is a professor of physiology and nutrition at Colorado State University, Ft. Collins.

He received his doctor of veterinary medicine degree from Colorado State in 1961. Phillips served as a post-doctoral trainee at the University of California, Davis, from 1961 to 1964, where he earned his Ph.D.

He is experienced in animal medicine. He has carried out a wide variety of research projects in such fields as blood flow and general cardiovascular and hemodynamic functions, in addition to metabolic control. His general area of interest is whole animal biochemistry.

Phillips and his wife, Nancy, have four children. They reside in Ft. Collins.

MILLIE HUGHES-FULFORD

Dr. Millie Hughes-Fulford is an assistant professor of biochemistry at the Veterans Administration Hospital in San Francisco. She has been at the hospital since 1973.

Hughes-Fulford earned her Ph. D. in biochemistry from Texas Women's University, Denton, in 1972. She received a B.S. degree from Tarleton State University, Stephanville, Texas.

As a clinical laboratory technician, she is skilled in basic hematological and isotope techniques. She has also conducted human and animal tracer studies and is a skilled animal handler and laboratory instrument technician.

Hughes-Fulford and her husband, George, reside in San Francisco. They have one child.

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IF.5 #10

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:

Azeezaly S. Jaffer
Headquarters, Washington, D.C.
(Phone: 202/453-1137)

May 2, 1985

RELEASE NO: 85-64

NEW LIFE FOR MISS LIBERTY

On October 28, 1886, President Grover Cleveland led a million Americans in the dedication of the Statue of Liberty, a gift from the people of France intended to symbolize American freedom. This Fourth of July, to commemorate Miss Liberty's 100th anniversary, the statue will be rededicated after extensive renovation and refurbishment.

Corrosion protection is being provided for the interior structure by a primer coating known as K-Zinc 531, an aerospace spinoff product manufactured by Inorganic Coatings, Inc., Malvern, Pennsylvania. The coating was developed by NASA's Goddard Space Flight Center as a means of protecting gantries and other structures at NASA's primary launch site, Kennedy Space Center (KSC), Fla.

KSC is located on Florida's Atlantic Coast, thus its launch facilities require greater corrosion protection than is needed inland because of constant exposure to salt spray and fog. Seeking o reduce maintenance costs at KSC, Goddard conducted a research program aimed at development of a superior coating that would not only resist salt corrosion but also protect KSC launch structures from the very hot rocket exhaust and the thermal shock created by rapid temperature changes during a space launch. The successful research effort produced a new type of inorganic coating.

At the time of Goddard's research in the early 1970s, there existed a number of anti-corrosion coatings formulated of zinc or aluminum dust in an organic binder, but they required two or more coats. To counter rising maintenance costs, Goddard sought longer lasting protection with only one coating with a water-based potassium silicate binder, a compound that provides long-term protection with a single application.

- more -

In 1981, NASA granted a license for the coating to Shane Associates, Wynnewood, Pennsylvania. The following year, Inorganic Coatings signed an agreement to become sole manufacturer and sales agent under the Shane license. The latter company assigned the trade name K-Zinc 531 to the NASA compound.

Because K-Zinc 531 is water-based, it is non-toxic, non-inflammable and has no organic emissions. The high ratio silicate formulation bonds to steel in just 30 minutes and creates avery hard ceramic finish with superior adhesion and abrasion resistance. It requires no straining before application and can be easily mixed on site. It is also very easy to apply and saves many labor hours per application.

SPECIAL NOTE

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Leon Perry
Headquarters, Washington, D.C.
(Phone: 202/453-1754)

May 2, 1985

RELEASE NO: 85-65

THE WATER HYACINTH HAS A NEW IMAGE

The water hyacinth, long fought as a weed that clogged streams and lakes, is destined to become a force in the battle against water pollution as a result of research conducted by the National Aeronautics and Space Administration.

Because of their beautiful lavendar flowers, the water hyacinth was brought to this country by Japanese exhibitors in 1884, as part of the New Orleans Cotton States Exposition. The plants were given away as souvenirs and when many were thrown away in drainage canals, streams and swamps, the trouble soon began. Due to the lack of insects which controlled the water hyacinth's growth in its native environment, the plant grew at an explosive rate.

NASA studies now show that the water hyacinth, when used under controlled conditions, is ideally suited for purifying domestic as well as certain industrial wastewaters. They can be harvested and ground into fertilizers, used to produce biogas and fiber, and can be harnessed to produce large quantities of fresh water.

NASA's research into the potential benefits of the water hyacinth has been led by Dr. Billy C. Wolverton, Ph.D., a senior research scientist, and Rebecca C. McDonald, a research chemist, at NASA's National Space Technology Laboratories, Bay St. Louis, Miss.

The water hyacinth also shows promise for partially supplying life sustaining functions for space travel, including oxygen, food, pure water and waste treatment. These functions of the water hyacinth could be useful on the NASA Space Station.

- more -

For the past 11 years, the water hyacinth has been tested at NASA's NSTL as an inexpensive method of treating wastewater. The vascular aquatic plants used in the early studies were floating species. This research led to the installation of a simple and cost effective wastewater treatment system at NSTL and development communities in Florida, Texas, and California.

NASA recently developed an advanced natural wastewater process that combines anaerobic microbial filter technology with the vascular plant wastewater treatment technology to produce an efficient hybrid system. This system uses rooted, cold-tolerant plants such as common reed growing on the surface of a microbial rock filter bed. The filter reed system has advantages over the floating aquatic system because wastewater is exposed to the atmosphere only after treatment and higher chemical concentrations can be tolerated because of the high surface microbial filter. Although the system was developed for domestic sewage, it has shown a potential for chemical waste and drinking water treatment.

One of the most important chemicals in use today is phenol. It is used to manufacture phenolic resins, epoxy resins, herbicides and nylon. It is also an important industrial and pharmaceutical solvent. Recent concerns about the discharge of large quantities of the chemical into the Mississippi River north of New Orleans and subsequent contamination of the city's drinking water demonstrated the need for efficient, inexpensive means of removing phenol and other toxic chemicals from contaminated drinking water. NASA's advanced natural wastewater treatment process was tested successfully in meeting this challenge.

Thanks to NASA research, the dreaded water hyacinth is forming a new image. Instead of the uncontrollable aquatic monster it has been for a hundred years, it is now emerging as an ideal candidate for large scale nutrient removal and water purification systems. The water hyacinth promises to aid mankind in meeting its most basic problems of sustaining an acceptable quality of life here on Earth and also in the remoteness of space.

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

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Headquarters, Washington, D.C.
(Phone: 202/453-1137)

May 2, 1985

RELEASE NO: 85-66

NASA LASER SYSTEM DEVELOPED TO CLEAN CLOGGED ARTERIES

NASA scientists have adopted a laser originally designed to measure gases in the atmosphere to the task of cleaning out clogged arteries without harming the walls of the blood vessels. The technique, when perfected, could allow patients to avoid coronary bybass surgery.

Physicians at Los Angeles' Cedars-Sinai Medical Center and laser scientists at NASA's Jet Propulsion Laboratory in Pasadena, Calif., recently teamed together to develop a laser system designed to non-surgically clean clogged arteries with unprecedented precision.

The system, called the excimer laser, someday may allow patients with arteriosclerosis to avoid coronary bypass surgery.

The excimer laser originally was developed at JPL to measure gases such as ozone in the earth's atmosphere. Investigations into its application to medicine began a year and a half ago when Cedars-Sinai physicians Warren Grundfest, Frank Litvack and James Forrester, conducting research into the potential of lasers in cardiology, sought a more precise and cooler laser than those currently available for use in medicine.

They found such a laser in the form of the excimer, developed by a JPL laser research team of Drs. James Laudenslager, Thomas Pacala, Stuart McDermid and David Rider. Working with the Cedars-Sinai physicians and a fiber optics consultant, Dr. Tsvi Goldenberg, the JPL team refined the laser for the delicate cardiovascular cleaning procedure devised by the medical researchers.

- more -

Lasers are used in many medical applications where precision cutting or welding is required, but have not been used with much success for the treatment or cardiovascular disease. Laser energy, if misdirected, can easily perforate delicate arterial walls and when plaque is burned away with most lasers, a rough, singed surface is left that tends to reaccumulate new plaque.

Laser energy can be used to heat matter, to illuminate it or to produce kinetic energy that breaks the molecular bonds of the material. In the case of the excimer laser, "We don't want to heat, just remove the plaque," says Laudensager of JPL.

Tissue cells can withstand heat up to 154 degrees Fahrenheit. Tissue near the plaque irradiated by the pulsed excimer laser tests never reached temperatures higher than 149 degrees F., so there is no danger of burning or singing artery walls.

This represents a vast improvement over other lasers used experimentally in laser-cardiology techniques, which heated tissue local to the irradiated area to temperatures ranging from 428 to 500 degrees.

Using a new technology of glass magnetic switches patented by JPL, the xenon-chloride excimer laser can be made to produce a uniform beam of energy that can be controlled and pulsed in an extremely short period from 10 billionths of a second to 200 billionths of a second (compared with hundreths of seconds for other medical lasers).

One pulse of the excimer laser cuts away microns of plaque with great precision reducing the danger of perforation.

The procedure involves threading a 1.5 millimeter diameter catheter through coronary arteries. The laser light is carred through one of three bundles of fibers within the bendable catheter. Another group of fibers shines a light at the tip of the catheter. A third fiber bundle within the catheter has a lens at its tip to provide video pictures of the inside of the artery. Clear liquid is flushed through the catheter to push back lood for a clearer picture. Fiber optics consultant Goldenberg developed the tiny fibers needed for the system.

Watching the video picture fed through the fiber optics, the physician can spot areas of plaque build-up and fire short bursts of the excimer laser that vaporize the material. The plaque disintegrates. The process occurs so quickly that the neighboring tissue is spared from damage.

In excimer laser experiments on living laboratory animals, cadavers and on arteries removed from heart patients, a typical coronary blockage has been cleared in 2 minutes.

While the researchers are being properly cautious in their predictions of the laser's medical potential, they are encouraged by the results of experiments carried out to date.

Development of the excimer laser was funded by NASA's Office of Space Science and Applications.

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IF.5 #10

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Debra J. Rahn
Headquarters, Washington, D.C.
(Phone: 202/453-2754)

May 17, 1985

H. Keith Henry
Langley Research Center, Hampton, Va.
(Phone: 804/865-2932)

RELEASE NO. 85-76

LARGE SPACE ANTENNA FLEXES WINGS IN GROUND TEST

The first successful ground deployment of a 50-foot antenna system marks a milestone in NASA's program to demonstrate that large space antenna concepts are feasible.

The test, recently conducted for NASA by the Harris Corp., Melbourne, Fla., demonstrated that the hoop-column antenna concept will unfold -- umbrella-style -- from a compact package to a graceful combination of thin structural members, quartz filament cords and gold-plated mesh.

The mesh serves as a precision reflecting surface stretching across the diameter of the supporting "hoop." The mesh surface is shaped like a dish, but could be designed to be flat, spherical or conical, depending on the intended application. The antenna column is an equally precise, telescoping hub, forming the central structure of the antenna, tensing the cords that shape the antenna surface and housing the electronic feed mechanism.

The tremendous size of potential large space antennas means a significant boost in effective radiated power from space and an increased sensitivity to weak signals from the ground or from other points in space. One potential application is in communications. Presently, a large antenna must be placed at each Earth station to receive the weak signals transmitted through small antennas on satellites. By placing the large antennas in space, the size and cost of the antennas required at each ground site will be greatly reduced. A few super-antennas placed in high geosynchronous orbit could cover the globe, instead of the great number of smaller satellites that would otherwise be required.

-more-

Millions of inexpensive home rooftop or land mobile unit antennas could receive satellite signals now picked up by only a few very large ground stations.

NASA believes the 50-ft. antenna system is the largest precision antenna designed for space that can be accommodated in existing ground electromagnetic test facilities. A series of additional tests are planned using this system as a benchmark.

Thomas G. Campbell, a researcher at NASA's Langley Research Center, Hampton, Va., puts the test into perspective: "Now we've proven that the hoop-column concept will mechanically deploy from a small, Shuttle-compatible package into a strong but lightweight structure providing a large precision reflector surface. It looks good. The next phase of the test program is aimed at confirming the radio frequency performance of the system. For that, we've gone to Martin Marietta Corp., Denver."

The ultimate deployable space antenna may have diameters as large as 150 to 300 ft. or as long as a football field. Studies show that larger concepts will have to be assembled in space.

Even at 50 ft., points out Dr. Earle K. Huckins, former head of Langley's Large Space Antenna Systems Technology Office, the test antenna represents a quantum jump in performance compared to the largest space antennas used today for civil applications. The experimental Applications Technology Satellite (ATS-6), launched by NASA in 1974, used a 30-ft. antenna to relay TV and other signals to a variety of receivers in previously isolated areas around the globe. A more precise antenna surface and a modest increase in size makes the test antenna many times more powerful and a candidate for use on the Space Station.

NASA research in a broad range of disciplines -- including materials, packaging and control of large flexible structures -- has advanced the technology required for development of large space antennas and, says Huckins, has significantly reduced the economic risks for industrial application.

-end-

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:
May 24, 1985

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Elizabeth Hess
Hughes Communications, Inc., El Segundo, Calif.
(Phone: 213/607-4193)

RELEASE NO: 85-77

NASA AND HUGHES MOUNT JOINT SATELLITE RESCUE EFFORT

The National Aeronautics and Space Administration (NASA) and Hughes Aircraft Company have agreed to develop jointly plans for a Space Shuttle mission to attempt to salvage the Hughes Leasat 3 satellite in orbit. The technically complex salvage attempt will provide an opportunity to extend the Shuttle's demonstrated capability to rendezvous with and salvage satellites in space.

The salvage attempt will take place under the terms of an agreement being negotiated by NASA and Hughes Communications, Inc. Hughes Communications, Inc., is a wholly-owned subsidiary of Hughes Aircraft Company.

Negotiations with the underwriters insuring Leasat 3 have been conducted by Hughes in New York and London. Agreement has been reached with Lloyd's and other European underwriters to proceed with the attempted salvage. Negotiations are continuing with the American underwriters.

Although the joint salvage effort will include elements never before attempted, it is based in large measure on experience gained by NASA during its repair of the Solar Maximum Mission satellite in April 1984 and its retrieval of the Palapa B-2 and Westar VI satellites in November 1984.

Pending an independent review of safety considerations by the Aerospace Safety Advisory Panel, the mission, as currently planned, will occur during Shuttle flight 51-I, now targeted for launch no earlier than August 24. This date marks the opening of the window for rendezvous with the Leasat spacecraft. Mission duration will be eight days to accommodate the Shuttle rendezvous phasing required.

- more -

Following two flawless Shuttle deployments and satellite activations of Leasat 1 and 2 in August and November of 1984, Leasat 3 failed to activate itself after successful deployment from Shuttle orbiter Discovery on April 13, 1985, during mission 51-D. The satellite is currently drifting in low earth orbit without command and telemetry capability. A rendezvous and salvage maneuver on April 17 went as planned, but the satellite failed to respond.

Immediately after the failure, Hughes initiated an intense investigation of all likely failure modes. Although the cause of failure can be isolated to the components and circuits involved in activating the satellite, no specific cause of failure has been firmly determined because of the limited flight data available.

The salvage plan involves modification of the satellite during rendezvous by two of the Shuttle crew to permit ground command of the satellite. The activation sequence, normally performed by an automatic timer on-board the satellite, including turn-on of the telemetry, will then be performed by ground command. The modifications made during the rendezvous will bypass all hardware likely to have been the cause of the Leasat 3 failure.

In its dormant state the satellite is experiencing temperatures well below the design and test limits of the liquid and solid propellant systems, electronic units, batteries and all other components. This factor, when combined with the complexity of the modifications to be made to the satellite by the Shuttle crew, appreciably limits the chances of success.

Leasat 4 will be launched during the same Shuttle flight 51-I. If the 51-I mission is completely successful, Leasat 3 and 4 will fulfill Hughes Communications' commitments to the Navy. Modifications to the Leasat 4 satellite are in progress which will also permit ground command of the post-deployment sequence if necessary.

Hughes Communications, Inc., will contract with NASA for the costs incurred in preparing for and executing the mission. NASA is still assessing the amount of these charges. The details of the salvage plan are currently being developed at NASA's Johnson Space Center, Houston, and a Shuttle launch services agreement will be signed in the near future, officials of NASA and Hughes said.

- end -

IF.5 #10

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:
May 29, 1985

Miles Waggoner
Headquarters, Washington, D.C.
(Phone: 202/453-8455)

RELEASE NO: 85-78

NASA AND ESA SIGN SPACE STATION AGREEMENT

NASA Administrator James M. Beggs and the Director General of the European Space Agency (ESA), Dr. Reimar Luest, will sign on June 3, 1985, a memorandum of understanding for the conduct of a cooperative program concerning detailed definition and preliminary design (Phase B) of a permanently manned Space Station. This follows the invitation of the President of the United States to Europe, Canada and Japan to cooperate in the development, operation and use of the permanently manned Space Station.

The ceremony will take place at 4:30 p.m. in the ESA pavillion at the Paris Air Show at Le Bourget Airport. Under the memorandum, the United States and ESA will conduct and coordinate parallel Phase B studies. The agreement provides for interaction and information exchange during the next 2 years. ESA will study a pressurized module that could be used as a manned laboratory, free-flying experiment platforms for both low-inclination and polar orbits with electric power and cooling and stabilizing systems, and a resources module. ESA studies also will cover ground facilities for mission preparation and support, and a data transmission system.

The cost of the Phase B studies carried out by European industry under ESA management, together with the corresponding technology program, amounts to 80 million accounting units. At 1985 exchange rates, one accounting unit equals 80 cents, bringing the current estimate to $64 million.

NASA has already signed agreements with Canada and Japan.

Cooperation during the development, operations and utilization phases will require separate agreements.

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NASA News

National Aeronautics and
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For Release:

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May 31, 1985

Steve Nesbitt
Johnson Space Center, Houston, Texas
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RELEASE NO: 85-82

NASA NAMES ASTRONAUT CREWS FOR ULYSSES, GALILEO MISSIONS

The National Aeronautics and Space Administration today named the astronaut crews for two Space Shuttle flights scheduled for 1986.

Commanding flight 61-F, scheduled for launch no earlier than May 15, 1986, will be Frederick H. Hauck. He first flew as pilot on Space Shuttle flight 7 in June, 1983, and was commander of mission 51-A in November, 1984.

The 61-F mission is a flight to deploy the Ulysses (International Solar Polar) spacecraft. It will be the first mission using the liquid-fueled Centaur upper stage.

Other crew members include Roy D. Bridges, pilot, and mission specialists David C. Hilmers and J. Mike Lounge. Bridges also will be pilot of the Spacelab 2 flight scheduled for no earlier thaw July 15, 1985. Hilmers is scheduled to fly as a mission specialist on the DOD flight, STS 51-J in September 1985. Lounge will be a mission specialist on the 51-I flight in August.

David M. Walker will command the Galileo mission, STS 61-G, set for launch six days after the Ulysses launch on May 21, 1986. Walker flew as pilot on STS 51-A.

The Galileo mission, also using the Centauer upper stage, will explore the environment of Jupiter and its moons.

- more -

Other crew members for 61-G include pilot Ronald J. Grabe and mission specialists John M. Fabian and James van Hoften. Grabe is scheduled to fly as pilot of the 51-J mission in September 1985. Fabian, who first flew on STS-7, is a mission specialist on STS 51-G, scheduled for launch this June. Van Hoften first flew on the Solar Maximum satellite repair mission, 41-G, in April, 1984. He also has an upcoming flight, mission 51-I in August this year to repair or retrieve the Syncom IV-3 satellite.

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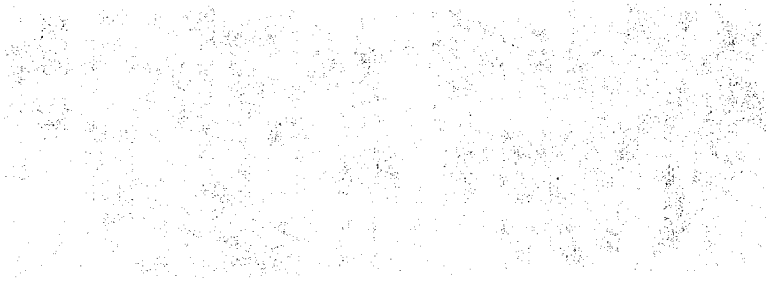

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NASA News

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June 4, 1985

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RELEASE NO: 85-84

NASA SELECTS 13 ASTRONAUT CANDIDATES

The National Aeronautics and Space Administration today announced the selection of 13 new astronaut candidates, six pilots and seven mission specialists.

The candidates, two of whom are women, will report to the Johnson Space Center, Houston, in late summer to begin a one-year period of training and evaluation. Successful completion of the training period will make them eligible for assignment to future Space Shuttle flights.

Five of the candidates are civilians. There are three from the Navy, three from the Air Force, one from the Marine Corps and one from the Army.

They join 90 current members of the astronaut corps. The most recent group of 17 candidates, selected in 1984, has been converted to full astronaut status. Counting the new group, 157 persons have been named astronauts since the beginning of the program.

NASA considered 33 civilians from the selection rosters developed during the 1984 selection process and 133 nominees from the military services. Fifty-nine of the highest ranking applicants were interviewed and given medical evaluations at JSC.

Attached are a list of the candidates with their astronaut candidate categoary followed by a brief biography.

- more -

Jerome Apt, PhD.	Civilian	Mission Specialist
LCdr. Michael A. Baker	USN	Pilot
Maj. Robert D. Cabana	USMC	Pilot
Capt. Brian Duffy	USAF	Pilot
Capt. Charles D. Gemar	US Army	Mission Specialist
Linda M. Godwin, PhD.	Civilian	Mission Specialist
Maj. Terence T. Henricks	USAF	Pilot
Richard J. Hieb	Civilian	Mission Specialist
Tamara E. Jernigan	Civilian	Mission Specialist
Capt. Carl J. Meade	USAF	Mission Specialist
Stephen S. Oswald	Civilian	Pilot
LCdr. Stephen D. Thorne	USN	Pilot
Lt. Pierre J. Thuot	USN	Mission Specialist

Abbreviated biographies follow:

Jerome Apt, PhD
Born: April 28, 1949 - Springfield, Mass.
Current Residence: Houston, Texas

Education: Shady Side Academy, Pittsburgh, Penn.
BA, Physics, Harvard College, 1971
PhD, Physics, Mass. Institute of Technology, 1976.

Present Position: Payload Officer
Operations Division
Johnson Space Center
Houston, Texas

Parents: Mr. & Mrs. Jerome Apt, Jr., Pittsburgh, Penn.

Michael A. Baker, Lt. Cmdr., U. S. Navy
Born: October 27, 1953 - Memphis, Tennessee
Current Residence: Amesbury, Wiltshire, England

Education: Lemoore Union High School, Lemoore, Calif.
BS, Aerospace Engineering, Univ. of Texas, 1975

Present Position: Fixed Wing Test Pilot Tutor
Empire Test Pilots' School
Boscombe Downs
Salisbury, Wiltshire, United Kingdom

Parents: Mr. & Mrs. Clyde E. Baker, Lemoore, Calif.

Robert D. Cabana, Major, U. S. Marine Corps
Born: January 23, 1949 - Minneapolis, Minn.
Current Residence: Lexington Park, Md.

Education: Washburn High School, Minneapolis Minn.
BS, Mathematics, U. S. Naval Academy, 1971

Present position: Assistant Operations Officer
Marine Aircraft Group 12
Marine Corps Air Station
Iwakuhi, Japan

Parents: Mr. & Mrs. Theodore J. Cabana, Minneapolis, Minn.

Brian Duffy, Capt., U. S. Air Force
Born: June 20, 1953 - Boston, Mass.
Current Residence: Niceville, Fla.

Education: Rockland High School, Rockland, Mass.
BS, Mathematics, U. S. Air Force Academy, 1975
MS, Systems Management, Univ. of So. Calif., 1981

Present Position: Director of F-15 Tests
3247th Test Squadron
Eglin AFB, Fla.

Parents: Mr. & Mrs. Daniel E. Duffy, Rockland, Mass.

Charles D. Gemar, Capt., U. S. Army
Born: August 4, 1955 - Yankton, S.D.
Current Residence: Martinez, Ga.

Education: Scotland Public High School, Scotland, S.D.
BS, Engineering, U. S. Military Academy, 1979

Present Position: Chief, Operations Branch
Command Aviation Office
Hunter Army Airfield, Ga.

Parents: Mr. & Mrs. Leighton A. Gemar, Scotland, S.D.

Linda M. Godwin, PhD
Born: July 2, 1952 - Cape Girardeau, Mo.
Current Residence: Houston, Texas

Education: Jackson High School, Jackson, Mo.
BS, Mathematics & Physics, S. E. Missouri St., 1974
MS, Physics, University of Missouri, 1976
PhD, Physics, University of Missouri, 1980

- more -

Present Position: Payload Officer
Operations Division
Johnson Space Center
Houston, Texas

Parents: Mr. & Mrs. James M. Godwin, Oak Ridge, Mo.

Terence T. Henricks, Major, USAF
Born: July 5, 1952 - Bryan, Ohio
Current Residence: Edwards, Calif.

Education: Woodmore High School, Elmore, Ohio
BS, Civil Engineering, U. S. Air Force Acad., 1974
Masters of Public Admin., Golden Gate Univ., 1982

Present Position: F-16 Test Pilot
57th Fighter Weapons Wing (TAC)
Edwards AFB, Calif.

Parents: Mother: Ms. Martha B. Reisingm Oak Harbor, Ohio
Father: Mr. Terry W. Henricks, Montpelier Ohio

Richard J. Hieb
Born: Sept. 21, 1955 - Jamestown, N.D.
Current Residence: Houston, Texas

Education: Jamestown High School, Jamestown, N.D.
BA, Math & Physics, N. W. Nazarene College, 1977
MS, Aerospace Engineering, Univ. of Colorado, 1979

Present Position: Flight Activities Officer
Operations Division
Johnson Space Center
Houston, Texas

Parents: Mr. & Mrs. Fred Hieb, Jamestown, N.D.

Tamara E. Jernigan
Born: May 7, 1959 - Chattanooga, Tenn.
Current Residence: Berkeley, Calif.

Education: Santa Fe High School, Santa Fe Springs, Calif.
BS, Physics, Stanford University, 1981
MS, Engineering Science, Stanford University, 1983
MS, Astronomy, Univ. of California-Berkeley, 1985

Present Position: Research Scientist
Ames Research Center
Moffett Field, Calif.

- more -

Parents: Mother: Ms. Mary P. Jernigan, Santa Fe Springs, Calf.
Father: Mr. Terry L. Jernigan, Lynwood, Calif.

Carl J. Meade, Capt., U. S. Air Force
Born: November 16, 1950 - Chanute AFB, Ill.
Current Residence: Lancaster, Calif.

Education: Randolph High School, Randolph AFB, Texas
BS, Electronics Engineering, Univ.. of Texas, 1973
MS, Electronics Eng., Cal. Institute of Tech., 1975

Present Position: Experimental Test Pilot Instructor
U. S. Air Force Test Pilot School
Edwards AFB, Calif.

Parents: Mr. & Mrs. John Meade, Universal City, Texas

Stephen S. Oswald
Born: June 30, 1951 - Seattle, Wa.
Current Residence: Houston, Texas

Education: Bellingham High School, Bellingham, Wa.
BS, Aerospace Eng., U. S. Naval Academy, 1973

Present Position: Aerospace Engineer and Pilot
Aircraft Operations Division
Johnson Space Center
Houston, Texas

Parents: Mr. & Mrs. Harold Oswald, Bellingham, Wa.

Stephen D. Thorne, Lt. Cmdr., U. S. Navy
Born: February 11, 1953, Frankfurt-on-Main, West Germany
Current Residence: Orange Park, Fla.

Education: T. L. Hanna High School, Anderson, S.C.
BS, Engineering, U. S. Naval Academy, 1975

Present Position: Squadron Aviation Safety Officer
STRKFITRON 132
Naval Air Station
Cecil Field, Fla.

Parents: Mr. & Mrs. James H. Thorne, Anderson, S.C.

Pierre J. Thuot, Lieutenant, U. S. Navy
Born: May 19, 1955 - Groton, Conn.
Current Residence: California, Md.

- more -

Education: Fairfax High School, Fairfax, Va.
BS, Physics, U. S. Naval Academy, 1977
MS, Systems Management, Univ. of So. Calif., 1985

Present Position: Airborne Systems Flight Instructor
U. S. Naval Test Pilot School
Patuxent River, Md.

Parents: Mr. & Mrs. Clifford G. Thuot, Fairfax, Va.

-end-

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John F. Kennedy Space Center
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RELEASE NO: 85-89

NASA ALTERS ASTRONAUT SELECTION PROCESS

The National Aeronautics and Space Administration this summer will change the way in which it solicits applications for astronaut positions.

Applications from civilians will be accepted on a continuing basis beginning Aug. 1, 1985. The military services will provide nominees to NASA on an annual basis. Selection usually will be made in the spring each year with successful candidates reporting in the summer.

The number of candidates selected each year will be determined by mission requirements and the attrition rate of the astronaut corps.

Both pilot and mission specialist astronauts will be selected. Pilot astronauts are responsible for control of the Space Shuttle during launch and entry and on-orbit maneuvers. Mission specialist responsibilities include management and operation of Space Shuttle systems and support to payloads and experiments during flight.

Minimum qualifications for pilot astronauts are:

-A bachelor's degree from an accredited institution in engineering, physical science, biological science or mathematics.

-1,000 hours pilot-in-command time in jet aircraft.

-Ability to pass a NASA Class I flight physical.

-Height between 64 and 76 inches.

- more -

Minimum qualifications for a mission specialist astronaut are:

-A bachelor's degree from an accredited institution in engineering, physical science, biological science or mathematics.

-Degree must be suplemented by three years of related professional experience. Advanced degrees are desirable and may be substituted for experience.

-Ability to pass a NASA Class II flight physical.

-Height between 60 and 76 inches.

NASA has an affirmative action goal of including qualified minorities and women among newly-selected astronauts.

For further information, write:

NASA Johnson Space Center
AHX/Astronaut Selection Office
Houston, TX 77058

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NASA News

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Kennedy Space Center, Fla.
(Phone: 305/867-2468)

June 20, 1985

RELEASE NO: 85-95

REVIEW BOARD SUBMITS REPORT ON SHUTTLE ACCIDENT

A NASA mishap investigation board has completed its report of a March 8 accident in which a payload bay door on the Space Shuttle orbiter Discovery was damaged and a technician injured during prelaunch preparations at Kennedy Space Center, Fla.

In its executive summary, the board reported that "the imme diate cause of the mishap was the failure of a master link in one of the two redundant hoist systems which raise and lower the Pay load Bay Access Platform.

"The mishap can be characterized as the culmination of a series of events and conditions which pushed the mechanical com ponents to and beyond their limits," the report noted.

The accident occurred in the Orbiter Processing Facility's High Bay 2 at approximately 8:00 a.m., March 8, as Discovery was being prepared for the move to the Vehicle Assembly Building and mating with other Shuttle elements for the 51-D mission.

A Payload Bay Access Platform used to provide access to the orbiter's cargo bay fell from its stowed position on a rolling bridge crane. The falling platform was deflected by two chains supporting other work platforms and came to rest after pene trating the orbiter's insulation blanket and left forward payload bay door.

Lockheed technician Gary Sutherland, 35, Cocoa, Fla., sus tained a broken left leg and bruised left shoulder when the descending platform struck him as he knelt on a work platform working on the insulation blanket system.

Tracing the events and conditions which led to the accident, the board noted that "Operators of the Payload Bay Access Platforms customarily stowed the platforms by raising them until the telescoping tubes contacted the (single) upper limit switch which stopped its upward travel.

"On March 4, an LSOC (Lockheed Space Operations Co.) technician reported a broken upper limit switch which had caused the telescoping structure to impact the supporting structure. In crane and hoist parlance, this is called 'two-blocking.' The inboard master link failed at this time and cable overwrap was noted on that portion of the winch. The entire up-down portion of this system was tagged out with a 'Do Not Operate' tag, since only one half of the redundant hoist system remained intact. This tag was placed on the operating controls along with two other similarly appearing tags, both several months old describing limitations on the operation of the platforms."

The board's summary noted that the platform was operated at least twice and stowed at least once between March 4 and the accident on March 8.

"During the stowing operation(s), given the fact of a broken upper limit switch and the standard operating procedure, it is an inescapable conclusion that additional two-blocking occurred. This imparted extremely high loads to the master link in the remaining wire rope assembly, fracturing it almost to the point of sufficient separation for the assembly to fall. When the bridge assembly was moved on the morning of March 8, the resulting jolt was enough to complete the break, and the platform assembly fell.

"The LSOC technicians who admitted using the platform on March 6 stated that they saw some tags, believed them to be old tags, and proceeded to operate the platform. They left the platform in a lowered position and, of necessity, someone raised it to the stowed position prior to the closing of the payload bay doors on March 7."

Among the board recommendations were:

- A revision of operating procedures and operator training to ensure that upper limit switches not be used as operational stops.

- A revision of tagout/lockout procedures to prevent unauthorized use of equipment which has been identified as unsafe.

- A modification to the design of the Payload Bay Access Platform to include the addition of an operational stop and load sensing device in the wire rope system.

-more-

- A revision of the platform preventive maintenance procedures to meet all KSC and Occupational Safety and Health Administration (OSHA) standards.

- A redesign of the telescoping tubes to facilitate the required inspection of critical linkages.

The board estimated the damage to the orbiter Discovery and the access platform at $200,000 and noted that rollover to the VAB was delayed from March 8 until March 23.

The board was composed of John Neilon, Director, Cargo Projects Management, KSC, chairman; B.H. Childers, Chief, Facility Operations Division, Launch Support Services Direc torate, KSC; and T.D. Greenfield, Chief, Networks Engineering Division, Electronic Engineering Directorate, KSC. Bruce Jansen was safety adviser and recorder, Mark Schlomer was legal adviser, and Charles H. Neubauer of the Shuttle Operations Division at NASA Headquarters served as observer.

-end-

NOTE TO EDITORS: Limited numbers of copies of the board's report are available for reading at the NASA Headquarters News room and at the KSC News Center.

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IF-5 #10

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Charles Redmond
Headquarters, Washington, D.C.
(Phone: 202/453-8536)

July 15, 1985

SPACELAB 2 MISSION LAUNCH DATE ASSESSMENT

NASA management has reviewed the schedule impact of the Shuttle mission 51-F abort on July 12.

NASA expects a rescheduled launch date for the Spacelab 2, STS 51-F near the end of July. The exact launch date will be determined sometime later this week or early next week.

The impact on the remainder of this year's launch schedule is minimal. The August STS 51-I "triple deploy"/Syncom repair is still scheduled for orbiter Discovery on Aug. 24.

The Atlantis main engine Flight Readiness Firing initially set for the end of July will be rescheduled.

The STS 51-J DOD mission aboard Atlantis is expected to slip several days up to two weeks. The Air Force has concurred in this. The exact launch date for 51-J and subsequent missions will be known in the near future as the schedule for 51-F becomes firm.

-end-

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For Release:

Debra J. Rahn
Headquarters, Washington, D.C.
(Phone: 202/453-2754)

September 12, 1985

Maurice Parker
Langley Research Center, Hampton, Va.
(Phone: 804/865-2935)

Release No. 85-127

ORBITER COLUMBIA MODIFIED FOR REENTRY RESEARCH

Significant changes have been made to Columbia, NASA's first Space Shuttle orbiter, to accommodate three research experiments to measure orbiter aerodynamic and thermodynamic characteristics as it reenters Earth's atmosphere. Researchers will use this flight data to develop future generation space transportation systems.

The most obvious change in Columbia's appearance is a cylindrical housing which replaced the fintip atop the vertical tail. The new experiment pod is approximately 20 inches in diameter and is capped at the leading edge by a spherical dome. The pod contains equipment for the Shuttle Infrared Leeside Temperature Sensing (SILTS) experiment.

SILTS will obtain high-resolution, infrared images of the upper (leeside) surfaces of Columbia's port wing and fuselage as the orbiter reenters Earth's atmosphere. The infrared images will provide detailed temperature maps at the surface of the leeside thermal protection materials. The maps will indicate the amount of aerodynamic heating of the surfaces in flight, acquiring data that cannot be adequately simulated in ground tests.

SILTS images will be obtained by an infrared camera, mounted inside the dome, that will view Columbia's left wing and fuselage through two windows. The windows will be protected from debris during launch by plugs that fill the window cavities. The plugs will be ejected when the experiment begins, and the windows will be actively cooled during reentry by the injection of gaseous nitrogen into the cavities. Experiment data will be stored on a tape recorder.

- more -

The experiment will be initiated by Columbia's computer at the time of entry interface, about 400,000 feet above Earth. It will end after the orbiter passes through the period of significant aerodynamic heating.

A less obvious change to Columbia is a completely new nosecap to house the Shuttle Entry Air Data System (SEADS) experiment. The nosecap has 14 penetration assemblies distributed about its surface, each containing a small hole through which local surface air pressure will be measured during reentry.

Measurement of the distribution of air pressure about the nosecap will allow precise post-flight determination of the orbiter's attitude relative to the oncoming airstream and the density of the atmosphere through which the vehicle has flown.

Accurate knowledge of these factors, coupled with vehicle motion information measured by a separate experiment, are required to determine orbiter aerodynamic flight characteristics. The lack of accurate air data has prevented scientists from determining exact orbiter inflight aerodynamic characteristics. SEADS will provide accurate data from an altitude of about 56 miles through landing.

A third experiment, not visible from outside the orbiter, is inside the nose wheel well. The Shuttle Upper Atmosphere Mass Spectrometer (SUMS) will complement the SEADS experiment by providing atmospheric density information at altitudes above 50 miles.

SUMS will sample air at Columbia's surface through a small hole, located just aft of the nosecap, to measure the number of molecules of various gas species. The information will be used to determine the atmospheric density that, with vehicle motion information, will allow determination of orbiter aerodynamic characteristics at altitudes where the atmosphere is extremely thin. Aerodynamic flight at these altitudes cannot be simulated in ground tests.

The SUMS instrument is a mass spectrometer originally developed for the Viking spacecraft that landed on Mars in 1976. It has been modified to operate in the reentry flight environment of the orbiter.

The experiments were developed at NASA's Langley Research Center, Hampton, Va., as part of the Orbiter Experiments Program, managed by NASA's Office of Aeronautics and Space Technology, Washington, D.C.

Columbia spent the past 18 months at Rockwell International Corp.'s facility in Palmdale, Calif., receiving these and other extensive modifications. Recently transferred from Palmdale to Kennedy Space Center, Fla., Columbia is scheduled to return to space in December 1985.

- end -

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NASA News

National Aeronautics and
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Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Charles Redmond
Headquarters, Washington, D.C.
(Phone: 202/453-2529)

September 12, 1985

RELEASE NO.: 85-128

NASA SELECTS ROCKWELL FOR SHUTTLE OPERATIONS CONTRACT

NASA announced today that Rockwell Shuttle Operations Co., Houston, Texas, has been selected for negotiations leading to an award of the Space Transportion System Operations Contract (STSOC) at the Johnson Space Center, Houston. Other team members include Bendix Field Engineering Corp., Columbia, Md.; System Development Corp., Camarillo, Calif.; Omniplan Corp., Santa Monica, Calif.; RMS Technologies, Inc., Landover, Md.; and System Management American Corp., Norfolk, Va.

The 2-year award, with a 2-year priced option, will be for services beginning Jan. 1, 1986. Rockwell's proposal reflected a 4-year cost of approximately $685 million. Ultimately, follow-on awards could result in a total contract period of 15 years.

Johnson will manage the work under a cost-plus-incentive/award-fee contract arrangement which includes incentive fee on sound cost management and an award fee on the basis of performance.

Rockwell would be responsible for the performance of six major STSOC functions. Those functions are: (1) project management; (2) maintenance and operations; (3) sustaining engineering; (4) flight preparation requirements and analysis; (5) flight preparation production; and (6) direct mission operations, testing and support. The work involves such major facilities as the Mission Control Center, Shuttle Mission Simulator, Shuttle Avionics Integration Laboratory, Software Production Facility, Central Computing Facility and the Mockup and Integration Laboratory.

- more -

This selection represents the consolidation, into one contract, of work being performed by 16 firms under 22 contracts.

In addition to Rockwell, proposals were submitted by Ford Aerospace and Communications Corp. Space Information Systems Division, Houston; Grumman Space Operations Corp., Houston; and Lockheed Space Flight Co., Houston.

- end -

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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Charles Redmond
Headquarters, Washington, D.C.
(Phone: 202/453-8536)

September 19, 1985

Steve Nesbitt
Johnson Space Center, Houston, Tex.
(Phone: 713/483-5111)

RELEASE NO: 85-131

NASA NAMES TWO SPACE SHUTTLE CREWS

NASA today announced the astronaut crews for two upcoming Space Shuttle flights and changes or additions to the crews for three other flights.

Veteran astronaut John W. Young will command Shuttle flight 61-J, with the deployment of the Hubble Space Telescope, scheduled for August 1986. Charles F. Bolden Jr. has been assigned as pilot on 61-J. Three mission specialists already have been named to that flight. They are Kathryn D. Sullivan, Steven A. Hawley and Bruce McCandless.

The crew for mission 61-K, the rescheduled Earth Observations Mission, set for launch in September 1986, includes Vance D. Brand, commander; S. David Griggs, pilot; and mission specialists Robert C. Stewart, Owen K. Garriott and European Space Agency astronaut Claude Nicollier.

Two payload specialists, Michael Lampton and Byron K. Lichtenberg, already had been named for mission 61-K.

Shuttle mission 61-I, the retrieval of the Long Duration Exposure Facility and deployment of Intelsat VI-1, will be commanded by Donald E. Williams. Other crew members include pilot Michael J. Smith and mission specialists James P. Bagian, Bonnie J. Dunbar and Manley L. "Sonny" Carter.

Two changes have been made to crews of other flights. Norman E. Thagard replaces John M. Fabian on mission 61-G, the deployment of the Galileo interplanetary spacecraft scheduled in May 1986. Fabian will be leaving the agency in the near future. His plans are unannounced.

- more -

Thagard was scheduled to fly on mission 61-H, scheduled for launch in June 1986, and will be replaced by James F. Buchli.

Young will be making his seventh space flight and his third in the Shuttle program with 61-J. He was commander of STS-1 in April 1981, the first mission of the Shuttle program, and STS-9, the Spacelab 1 mission in 1983.

Bolden will be flying for the second time. He also is scheduled to fly as pilot on mission 61-C in December 1985.

Brand and Griggs were reassigned from the Spacelab 4 mission, the first dedicated life sciences flight. The launch date for that mission is currently under review. It will be Brand's third Shuttle flight. He also flew on the Apollo-Soyuz mission in 1975 in which Soviet and American spacecraft met in orbit.

Griggs was a mission specialist on flight 51-D in April 1985.

Stewart was the second astronaut to fly the manned maneuvering unit on mission 41-B and is scheduled to fly as a mission specialist on flight 51-J, the DOD mission in October. Garriott will be making his third space flight. He was a member of the Skylab 3 and STS-9 crews. Nicollier will be making his first trip into space.

Williams was pilot on flight 51-D. Smith is scheduled to pilot mission 51-L in January 1986. Bagian and Carter will be making their first Shuttle flights. Dunbar is scheduled as a mission specialist on the Spacelab D-1 flight, 61-A, in October.

Thagard and Buchli will each be making a third spaceflight.

- end -

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AC 305 867-2468

For Release:

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September 20, 1985

RELEASE NO: 85-132

BARNES NAMED HEAD OF NASA INTERNATIONAL AFFAIRS

Richard J.H. Barnes has been appointed director of the International Affairs Division of the Office of External Relations at the National Aeronautics and Space Administration. The appointment is effective Oct. 7, 1985.

Barnes replaces Kenneth S. Pedersen, who has served in the job since November 1978. Pedersen has been appointed assistant associate administrator of external relations. Pedersen will spend the next year on sabbatical as research professor at the Georgetown University School of Foreign Service.

Barnes recently completed 4 years as NASA European representative based at the American Embassy in Paris. In that capacity he was responsible for liaison with the European Space Agency and the national space agencies of Western Europe on agreed cooperative projects and for identification of potential future joint space projects. He joined the NASA Office of International Programs in 1961 and served in various capacities, including deputy director of international affairs before his Paris assignment. James V. Zimmerman replaces Barnes in the Paris office.

Prior to NASA, Barnes was affiliated with the Atomic Industrial Forum, Inc., and served with the Atomic Energy Commission's Division of International Affairs and the Bureau of Ordnance of the Navy Department.

Barnes received a bachelor of arts degree from Dartmouth College and a master of public administration degree from Harvard University. He was also graduated from the Industrial College of the Armed Forces and served on commissioned active duty with the U.S. Navy during the Korean War.

Barnes and his wife, Helena, live in Washington, D.C. They have three grown children.

- end -

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NASA News

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For Release:

Jim Kukowski
Headquarters, Washington, D.C.
(Phone 202/453-1548)

Oct. 8, 1985
3 p.m. EDT

Peter W. Waller
Ames Research Center, Mountain View, Calif.
(Phone 415/694-5091)

RELEASE NO: 85-140

WATER MAY HAVE PLAYED MAJOR ROLE ON MARS

Ice, snow, flowing rivers and vast lakes may have played a major role in shaping the ancient Martian surface and climate, a panel of scientists reported today at NASA's Ames Research Center, Mountain View, Calif.

Their scientific presentation grew out of research discussed at the "Water on Mars Workshop," which brought 83 scientists to Ames last winter and included more recent work in this active field.

Early in the planet's history, according to Bruce Jakosky of the University of Colorado, Boulder, the Martian poles were tilted more directly toward the sun than they are today. As a result, the polar ice caps may have sublimed (changed directly from a solid to a gaseous state) into the atmosphere during the continual daylight of polar summer.

Vapor from the caps would have been carried by Martian winds to the equatorial regions. At equatorial latitudes, where night always alternates with day, the chill of nightfall would have precipitated water vapor as snow, Jakosky said.

Gary Clow of the U.S. Geological Survey, Menlo Park, Calif., reported that an equatorial snowpack could have been heated by sunlight trapped inside the snow fields. A reflective, insulating blanket of snow can trap sunlight, much as a greenhouse holds the sun's warmth. Thus, even if the surface of Mars had still been cold, melting beneath an insulating snowpack could have let water escape to carve the "valley network" channels of Mars. These valley network channels as well as larger outflow channels -- both strongly resembling dry riverbeds on Earth -- were photographed by Mariner 9 in 1972.

- more -

The larger outflow channels are thought to have been created by sudden release of enormous amounts of subsurface water, which may have dug the channels in a matter of weeks. The valley network channels, which Clow has studied, are smaller and indicate the existence of a more moderate climate on early Mars, allowing liquid water to flow for long periods of time.

Huge ice-covered lakes also may have existed on the ancient Martian surface in the immense Valles Marineris canyon system, according to Steven Squyres of Ames. Viking photographs of the floor of these canyons, Squyres said, reveal thin, flat-lying layers of sediments which appear to have been laid down in standing bodies of water.

Today, Mars is so cold that all water on its surface freezes. Although the Martian atmosphere is 95 percent carbon dioxide (an effective infrared absorber), it is so thin that it cannot trap the heat of the sun.

Dry ice (solid carbon dioxide) covers the polar regions of Mars. Water-ice lies underneath the northern cap and perhaps under the southern polar cap as well. The water-ice at the northern pole is revealed when the overlying dry ice vaporizes each summer.

Water-ice in the Martian polar caps does not melt because temperatures rarely climb above freezing, except at the equator. It sublimes directly into the atmosphere, forming wispy clouds on Mars. Earth's billowy clouds are formed by tiny droplets of liquid water.

Today, ice is present in the Martian ground in regions above 30 degrees latitude, according to Squyres and Michael Carr of the U.S. Geological Survey. Examining Viking photographs of impact craters, Squyres and Carr found evidence of "terrain softening" -- a rounding off of features indicating water activity beneath the surface.

Terrain softening of smaller, more recent craters suggests that ice remains present in these northern and southern regions. Like the tundra of Alaska, this deeply-frozen ground never thaws.

The presence of ice indicates that liquid water exists deep within the planet, according to Carr. Half a mile beneath the surface, water in the pores of Martian rocks is liquid, Carr says. It is heated by the high temperatures present at these depths in the Martian crust.

Robert Haberle of Ames, studying water distribution on Mars using data gathered by Viking orbiters, has found that water lost by the north polar cap during summer is not fully recovered in the winter. He wants to determine where this water goes.

Movement of water and carbon dioxide to and from the polar ice caps and movement into and out of the rubbly Martian ground may be responsible for the mysterious "layered terrains" that fringe the polar caps.

In winter, carbon dioxide condenses over the polar region, depositing a layer of mingled ice and dust. This layer then becomes cemented into place by water-ice and remains when the carbon dioxide evaporates again in the spring. Periodic changes in the Martian climate, caused by fluctuations in the planet's tilt toward the sun, can alter the amount of gas which condenses, thus creating layers of varied sizes.

According to James Pollack of Ames, the Martian climate in the past may have been warmer and wetter. An earlier atmosphere may have been much thicker with more carbon dioxide available to hold the sun's warmth. Rivers and lakes of liquid water could have dotted the ancient landscape.

This earlier, warmer climate actually may have destroyed itself, Pollack says. The presence of liquid water would have accelerated weathering of rocks, enhancing chemical reactions that take carbon dioxide out of the atmosphere and incorporate it into minerals. With the loss of carbon dioxide from its atmosphere, heat would have escaped the planet's surface, cooling the planet and locking up its water as ice.

However, not all scientists accept this theory on how Mars lost its originally-thick atmosphere. A new theory, suggested at the workshop by Peter Schultz of Brown University, is that the cataclysmic impact, that created the immense Argyre basin on Mars, may have perturbed its climate by blowing into space a significant part of the atmosphere. Schultz noted that Martian terrains, formed after the Argyre impact, have fewer dry channels than older terrain, a feature that suggests a major climatic change at that time.

Besides Earth, Mars is the only planet in our solar system that experiences cyclical changes in climate. Understanding past and present conditions on Mars will help scientists decipher Earth's climate, said Haberle.

- end -

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For Release:

James F. Kukowski
Headquarters, Washington, D.C.
(Phone: 202/453-1548)

November 27, 1985

RELEASE: 85-159

NASA CALLS 1986 "A YEAR FOR SPACE SCIENCE"

NASA is preparing for its most productive year ever in space science activities. A variety of "space firsts" will be accomplished and several major scientific studies will be continued or begun in 1986.

To increase the public's knowledge and understanding of its scientific programs, NASA's Office of Space Science and Applications and the Smithsonian Institution's National Air and Space Museum will cooperate in a year-long program entitled: "1986 -- A Year for Space Science."

Dr. Burton I. Edelson, NASA's Associate Administrator for Space Science and Applications says, "1986 may well be remembered as the year that mankind learned more about the vast reaches of our universe than any other year in recorded history. With existing and new interplanetary probes, new payloads and spacecraft and unprecedented international cooperative programs, we hope to add a number of significant scientific discoveries to man's knowledge. And most importantly, we want to share that excitement and these discoveries with the world."

Exhibits, audio-visual presentations, publications and a lectures series at the Air and Space Museum and several other locations throughout the nation are planned for 1986. Other organizations also are expected to cooperate in the year-long venture.

Major space science activities in 1986 include the Voyager-2 encounter with planet Uranus in January. Then culminating in March, several scientific spacecraft and payloads will conduct investigations of Comet Halley. In May, the Space Shuttle will launch Galileo toward planet Jupiter to conduct an extensive exploration of the Jovian system with its many moons. Also in May, the Space Shuttle Challenger will launch the European Space Agency's Ulysses spacecraft to conduct comparative studies of the sun and its heliosphere.

- more -

Additionally, the launch of the Hubble Space Telescope, the largest telescope to be placed in Earth orbit, is scheduled for late summer. The Year for Space Science also will highlight the 10th anniversary of the Viking spacecraft landing on Mars, a flyby of an astroid by the Galileo spacecraft and important science experiments on the Space Shuttle throughout the year.

In addition to exhibits and lectures, the National Air and Space Museum will carry NASA mission events on television at designated locations in the museum.

A lecture series conducted at the museum will feature participants in many of the NASA programs and experts in the space science field. Programs will be announced by the museum during the year.

Voyager-2 encounters Uranus with a flyby of the cloud-shrouded planet on January 24. Launched in September 1977, Voyager's imaging system and other instruments will provide data on Uranus never before available.

Uranus is one of the giants of our solar system. But, it is so far away, almost 2 billion miles, it can not be seen except through extremely powerful telescopes. Uranus is tipped on its side giving it a unique rotation. Scientists theorize that a collision, early in Uranus' history, with another planet-size body might have tilted Uranus from its vertical axis to its present orientation. Uranus is known to have five moons and as many as nine ring features.

Voyager 2 will come as close as 50,000 miles above the cloud tops of the planet. In addition to obtaining images of the planet and its moons and rings, measurements of Uranus' chemical composition, magnetic environment, rotation and weather will be taken.

Comet Halley will come under intense scrutiny by NASA in 1986. The first NASA spacecraft dedicated to investigating the famous comet -- Spartan Halley -- will be placed in Earth orbit in January. A free-flying spacecraft deployed from the Space Shuttle, Spartan-Halley will observe the comet by measuring its ultraviolet spectrum while the comet is as close to perihelion (closest pproach by the comet to the sun) as possible. After its instruments record the data, Spartan-Halley will be retrieved by the Shuttle and the data tapes will be analyzed after landing.

In March, an ultraviolet telescope observatory, Astro-1, will be carried into Earth orbit aboard the Space Shuttle. The observatory will carry out an extensive survey of the universe by observing and measuring the ultraviolet radiation from celestial

objects such as planets, stars, star clusters, galaxies, quasars, clouds of dust and gas and the interstellar medium.

The imaging of Halley's comet by a pair of visible light, wide-field cameras and other ultraviolet instruments aboard Astro-1 will add immeasurably to the information being gathered by the International Halley Watch (IHW).

Complementing the Astro-1 instruments will be a special camera system called "Can Do". A project of middle school students in Charleston County, S. C., the camera will provide wide-angle, color imagery of the comet.

The IHW, headquartered at NASA's Jet Propulsion Laboratory, Pasadena, Calif., will gather information from a variety of international sources including Soviet, European and Japanese spacecraft rendezvousing with or passing near the comet. Information from other spacecraft (Astro-1, Spartan-Halley, Pioneer-Venus, International Cometery Explorer and International Ultraviolet Explorer) will add to the data base. The IHW also will coordinate an international effort by nearly 1000 professional and thousands of amateur astronomers who will view and record information on the return of the world's most famous comet.

The Galileo mission, which will carry out a 2-year orbital investigation of the massive planet Jupiter and send a probe into the planet's gaseous atmosphere, is scheduled for launch from the Space Shuttle in May 1986. It will take almost 2 years for Galileo to reach the solar system's largest planet. Upon arrival, the Galileo spacecraft first will monitor the descent of its instrumented probe into the Jovian atmosphere and then Galileo will embark upon a 10-orbit, 20-month tour of Jupiter and its moons.

Also in May, the European-built Ulysses spacecraft will be launched. The European Space Agency and NASA are cooperating in the investigation of the sun and its environment. Ulysses will carry an assortment of European and U.S. built sensors.

In late summer, the world's largest space telescope will be placed into Earth orbit by the Space Shuttle. The Hubble Space Telescope, carrying a 10-foot diameter reflecting mirror, will be able to see 7 times farther than any existing telescope, possibly to the edge of the universe. The huge telescope will be operated by NASA's Goddard Space Flight Center, Greenbelt, Md., while the data will be handled by the newly-established Space Telescope Science Institute at Johns Hopkins University, Baltimore, Md.

Also in the fall of 1986, the Shuttle High-Energy Astrophysics Laboratory will be delivered to Earth orbit by the Space Shuttle. It will add new data to the growing understanding of the space environment.

In December, if all has gone well with the Galileo spacecraft, an asteroid -- Amphritrite 29 -- will fall under the "eyes" of Galileo's instruments as it travels through the asteroid belt (between Mars and Jupiter) on its way to Jupiter. The spacecraft will photograph and gather data on the 125-mile-wide asteoid at a range as close as 12,000 miles.

- end -

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
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For Release:

Charles Redmond
Headquarters, Washington, D.C.
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November 27, 1985
11:00 a.m. EST

RELEASE NO: 85-158

WEST COAST SHUTTLE LAUNCH DELAYED

The U.S. Air Force and NASA have jointly agreed to delay the first Space Shuttle launch from Vandenberg Air Force Base, Calif., until mid-July, 1986. The mission, STS 62-A, had been scheduled for launch no earlier than March 20, 1986.

"There are no major problems at the Vandenberg site," Under Secretary of the Air Force Edward C. "Pete" Aldridge, Jr., said. "We have repeatedly stated that safety and quality would not be sacrificed for schedule. Our decision reflects our continued commitment to this philosophy."

"We have had to make some facility modifications because of what we learned from routine Air Force/NASA operational readiness inspections, " Mr. Aldridge said. "We have also added time to the schedule to allow for better preparation and evaluation of the operational systems tests and we have extended the training period for the launch crew of this historic, first West Coast shuttle mission."

"This revised schedule will permit us to complete ongoing modifications, inspections, rework and operational testing with higher confidence than could be permitted with the March 20 schedule. It also minimizes the potential for conflict with the NASA Ulysses and Galileo planetarty missions scheduled in May," he explained.

NASA Office of Space Flight Associate Administrator Jesse Moore agreed with Under Secretary Aldridge, adding, "NASA concurs completely with the Air Force regarding Vandenberg. Our first commitment is to the safety of the crew and the reliability of the vehicle and launch systems. The development of the Vandenberg site is proceeding very smoothly. This readjustment gives us all more time to carry out our commitment to safety and reliability."

The decision to delay means the orbiter Discovery will be delivered to Vandenberg around March 1, 1986. Air Force and NASA officials will continue to evaluate the STS 62-A schedule and will establish a firm launch date after January 1.
- END -

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NASA News

National Aeronautics and
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Washington, D.C. 20546
AC 202-453-8400

David Garrett
Headquarters, Washington, D.C.
(Phone: 202/453-8400)

For Release:

RELEASE NO: 85-168

SHIRLEY M. GREEN APPOINTED NASA DIRECTOR OF PUBLIC AFFAIRS

The appointment of Shirley M. Green as director of public affairs for the National Aeronautics and Space Administration was announced today by Thomas P. DeCair, associate administrator for external relations.

She replaces Frank S. Johnson Jr., who has been appointed assistant associate administrator for external relations (special projects).

Green comes to NASA with 20 years experience in communications and management. She will be responsible for planning and directing the full range of NASA activities to provide information to and respond to inquiries from the public and the media.

Since 1981, she has held the positions of deputy and acting press secretary to the Vice President of the United States. During that time she was responsible for planning and coordinating media activities for the Vice President on matters of domestic policy, including the Task Forces on Regulatory Relief and Drug Interdiction. She accompanied the Vice President to 61 foreign countries, coordinating all media activities.

A native Texan, Green is a former chairman of public affairs for the Texas Federation of Republican Women, press assistant to Congressman Bob Price and recipient of the Ten Outstanding Republican Women award in Texas. She is a member of the American Newswomen's Association and recently was selected for the Who's Who of American Women.

She received a bachelor of business administration degree from the University of Texas in 1956. She has two grown daughters who reside in Texas.

-end-

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John F. Kennedy Space Center
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For Release:

Kenneth C. Atchison
Headquarters, Washington, D.C.
(Phone: 202/453-8400)

Immediate

NOTE TO EDITORS:

A series of NASA briefings on Space Shuttle Mission 51-L and Comet Halley Observations are scheduled for Dec. 12 and 13, originating from NASA's Headquarters, 400 Md. Ave., S.W., Washington, D.C., and Johnson Space Center, Houston, Texas.

The Dec. 12 briefings include 51-L mission overview (10 a.m.), Teacher-in-Space lesson plans (11 a.m.), payload specialist training (noon), Comet Halley observations (1 p.m.), Tracking and Data Relay Satellite payload (4 p.m.) and Space Shuttle Student Involvement Program experiments (5 p.m.).

On Dec. 13, the 51-L crew conference will be held at 10 a.m., with "round robin" interviews at 9-10 a.m. and 11 a.m. to 1 p.m. at Johnson Space Center.

All briefings will be carried on NASA Select TV via RCA Satcom F2R, Transponder 13. NASA Select video is also available at the AT&T Switching Center, Television Operation Control in Washington, D.C., and at many NASA Centers. Call 202/453-8372 for additional NASA Select TV information. All times in this notice are EST.

- end -

Dec. 9, 1985

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Headquarters, Washington, D.C.
(Phone: 202/453-8536)

RELEASE NO: 85-169

NASA, DOD ANNOUNCE SHUTTLE PRICING POLICY

The Department of Defense and the National Aeronautics and Space Administration have reached agreement on a pricing and reimbursement policy for DOD use of the national Space Transportation System during the period FY 1989 through FY 1991.

The new agreement establishes an average price of $60 million (in FY 1982 dollars) for each DOD launch. The average is based on the estimated cost to fly and an exchange of launch and range support services between DOD and NASA.

Based on 1982 dollars, the price reflects a fixed-base component of $30 million for each planned flight and an incremental component of $30 million for each actual flight. The annual fixed-based component total -- $270 million per year, based on DOD projections of nine equivalent flights -- will be paid regardless of the number of actual flights, while the $30 million incremental component will only be paid for each actual flight.

By combining a significant fixed annual charge with a low variable cost per flight, the new agreement ensures that NASA will be able to cover its needs.

Through this agreement, DOD and NASA reaffirm their partnership in the national STS. DOD will continue to rely on the Shuttle as DOD primary space launch vehicle and NASA will ensure the STS meets its launch schedule and performance requirements.

-end-

Dec. 12, 1985

This release and other NASA information is available electronically through ITT Dialcom. For access to NASA NEWS, through this system, contact Jim Hawley, ITT Dialcom, Inc. at 202/488-0550.

IF.5 #10

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Barbara Selby
Headquarters, Washington, D.C.
(Phone: 202/453-8400)

For Release:
Dec. 13, 1985

NOTE TO EDITORS/BROADCASTERS:

During Space Shuttle 61-C, scheduled for launch Dec. 18, Costa Rican-born astronaut Franklin R. Chang-Diaz will make a video broadcast in the Spanish language for live distribution to audiences in the United States and Latin America. The video will be relayed on Friday, Dec. 20 at 10:40 a.m. EST.

On Saturday, Dec. 21 at 12:35 a.m. EST, Chang-Diaz will talk with the President of Costa Rica, Luis Alberto Monge.

Both events will be available via NASA Select TV:
RCA Satcom F2R, Transponder 13, C-band
Orbital position: 72 degrees West longitude
Frequency: 3954.5 MHz, vertical polarization
Audio Monaural: 6.8 MHz

- end -

IF.5 #11

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Dave Garrett
NASA Headquarters

For Release:
Immediate

SHUTTLE ORBITER MOVE ADVISORY

The Space Shuttle Orbiter Columbia is scheduled to move out of the Orbiter Processing Facility at the Kennedy Space Center, Florida no earlier than Sunday afternoon, November 23rd, and be towed to the adjacent Vehicle Assembly Building for mating with its external fuel tank and solid rocket boosters.

The final move day is dependent upon the results of final inspections now in process. A more accurate assessment will be made on Saturday, November 22, with daily updates thereafter as required.

IF.5 #13

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Steve Nesbitt (JSC)
RELEASE NO. 85-012

March 21, 1985

Dick Young
Kennedy Space Center, FL 32899
305-867-2468

NOTE TO EDITORS: STS-51B/SPACELAB 3 BACKGROUND BRIEFINGS

Background briefings and a flight crew press conference for Space Shuttle Mission 51-B, the Spacelab 3 flight, will be held Monday and Tuesday, March 25 and 26.

A series of three background briefings will be held Monday beginning at 2 p.m., EST, with lead flight director Gary Coen in Room 135, Bldg. 2, at the Johnson Space Center, Houston, followed by Spacelab Operations and Science overview briefings at 3 p.m and 4 p.m., respectively, from the Marshall Space Flight Center, Huntsville, Ala.

Joe Cremin, Spacelab 3 mission manager, will discuss the general content of the flight, followed by Spacelab 3 Mission Scientist Dr. George Fichtl.

The 51-B crew will hold a press conference at 12:30 pm. Tuesday in Houston. Robert F. Overmyer will command the flight. Other members of the crew include pilot Frederick D. Gregory, mission specialists Don L. Lind, Norman E. Thagard, and William E. Thornton, and payload specialists Lodewijk van den Berg (EG&G Corp.) and Taylor G. Wang (Jet Propulsion Laboratory).

# # #

IR.5 #13

NASA News

National Aeronautics and
Space Administration
Lyndon B. Johnson Space Center
Houston, Texas 77058
AC 713 483-5111

Dave Alter
RELEASE NO. 84-044

For Release:
IMMEDIATE

NASA AWARDS MARTIN MARIETTA PIC CONTRACT

The National Aeronautics and Space Administration today announced it has awarded the Martin Marietta Corporation a $4.9 million contract to manufacture pyrotechnic initiator controllers (PIC) for Space Shuttle Operations.

The PIC is a common item used by Shuttle Orbiters and on solid rocket boosters, external tanks, mobile launch platforms and payloads. The PICs are used in Shuttle events control subsystems of the electrical power distribution and control system to fire NASA standard initiators. The contract calls for delivery of 800 PIC's through January 1988.

The work will be done at Martin Marietta's Aerospace plant at Denver, Colo., for the Johnson and Kennedy Space Centers, Lewis Research Center and the Marshall Space Flight Center.

In addition to Martin Marietta, a proposal also was received from Eldec Corporation, Lynnwood, Wash.

# # #

October 30, 1985

IF.5 #13

NASA News

National Aeronautics and
Space Administration
Lyndon B. Johnson Space Center
Houston, Texas 77058
AC 713 483-5111

Steve Nesbitt
RELEASE NO. 85-053

For Release
IMMEDIATE

NASA NAMES ASTRONAUT CREW FOR DEPARTMENT OF DEFENSE MISSION

The National Aeronautics and Space Administration today announced the flight crew for a dedicated Department of Defense mission scheduled for September.

Mission 61-N, set for launch no earlier than September 4, 1986, will be commanded by Lt. Col. Brewster H. Shaw, Jr. It will be Shaw's third shuttle mission. He served as pilot on STS-9, the first Spacelab mission, and as commander of flight 61-B which launched November 26.

Pilot on 61-N will be Cdr. Michael J. McCulley. Mission specialists named are Cdr. David C. Leestma, Maj. James C. Adamson, and Maj. Mark N. Brown. A DOD payload specialist will be announced later.

Leestma will be making his third space flight. He was a mission specialist on 41-G in October, 1984, and is scheduled to fly on 61-E, the ASTRO-1 flight, in March, 1986.

December 17, 1985

-more-

It will be the first flight for McCulley, Adamson and Brown. All are members of the 1984 astronaut class.

All of the crew members are military officers. Shaw and Brown are in the Air Force. McCulley and Leestma are Navy officers and Adamson is an Army officer.

# # #

18.6 Hz9

PATRICK AIR FORCE BASE
BULLETIN

HEADQUARTERS 6550TH AIR BASE GROUP (AFSC) — US Air Force Aerospace Power for Peace
No. 138 SEND ITEMS TO 6550 ABG/DAPP Rm 3-125, Bldg 425 494-6529 RECEIPT REQUIRED NOON TWO DAYS PRECEDING PUBLICATION. 2 Dec 85
EXPIRES: 2 Feb 86

OFFICIAL

Chaplain Duty Officer: Capt Brokema 2 Dec - 9 Dec 85 494-4073/7001

1. ATTENTION MESSAGE RELEASERS. Message reduction project. CSAF/CV has expressed concern over the growth of message traffic. During the past five years there has been a deteriorating trend in communications discipline. Message releasers should screen all messages to determine if electrical transmission is warranted and eliminate those addressees who don't urgently need the message. Also, review all reports now transmitted electrically. Do the suspense dates permit sending the report by nonelectrical means? Your DA function can advise you on transmit times for reports sent by courier or pouch. Finally, ensure that all message releasers are aware of and adhere to procedures during minimize conditions. Additional information is provided in ESMC/SI Ltr, 5 Nov 85, Msg Reduction Project, addressed to all message releasers. A survey will be conducted in December to check on progress. (ESMC/SI/Lt Col Wiley/6014)

2. LIMITED TEMPORARY LODGING FACILITIES (TLF) AT OFFUTT AFB NEBRASKA. We have been notified by 3902 ABW/SV, 31 Oct that the availability of TLF space at Offutt AFB will be limited due to a renovation project, effective 1 Nov 85, for approximately 12 Months. (6550 ABG/SV/Mr LaFrance/ 7284)

3. CORRECTION FOR BX EXTENDED HOLIDAY HOURS FOR BASE EXCHANGE MAIN STORE. For your holiday shopping convenience the Main Store hours are as follows: 0900-1730, Sat, 7, 14, 21 Dec; 1000-1730, Sun, 1, 8, 15, 22 Dec; 0930-1930, Tues, 3, 10, 17 Dec; 0930-1800, Tues, 24 Dec. The late night Tues hours, for Dec only, will coincide with the Commissary which will continue to stay open until 1930 permanently. (6550 ABG/SVE/Bargfrede/ 6455)

*4. BASE SECURITY COUNCIL/RESOURCES PROTECTION EXECUTIVE COMMITTEE MEETING (BSC/RPEC). The semi-annual BSC/RPEC will meet at 1000, 9 Dec, Room C-130, Bldg 423. Attendance for members is mandatory in accordance with AFR 125-37, ESMC Sup 2, paragraph 3-9a. (6550 ABG/SPAF/Whitlock/2381)

*5. ATTENTION ALL COMMANDERS, SUPERVISORS, AND FUNCTIONAL MANAGERS. You are reminded that a funding account will have to be established with ESMC/AC for payment of purchases of prescription eye and face protective equipment. This is in accordance with ESMCR 127-12, dated 30 Aug 85. The USAF Hospital Medical Supply Section will need this account number prior to the purchase of equipment. We recommend that this account be established immediately. (ESMC/SEG/ Key/2202)

*6. OUTSTANDING AIRMAN OF THE QUARTER (1 OCT-31 DEC 85). The Patrick AFB Outstanding Airman of the Quarter (all three categories) nominations are due at 6550 ABG/DPMAP no later than 1200, 12 Dec 85. The nominations must be submitted in accordance with 6550 ABG/DPMAP letter, 22 Nov 85, Patrick AFB Outstanding Airman Awards Program.

Nominations not received on time and in the correct format will not be accepted. All nominees must appear before the selection board in person. Orderly room personnel will be notified of time and place for each nominee to report. (6550 ABG/DPMAP/TSgt Jones/2919)

*7. OUTSTANDING COMPANY GRADE OFFICER OF THE QUARTER AND YEAR. The Patrick AFB Outstanding Company Grade Officer of the Quarter nominations are due at 6550 ABG/DPMAP no later than 1200, 18 Dec 85. Nominations for the annual program are due at 6550 ABG/DPMAP no later than 1200, 20 Dec 85. The nominations must be submitted in accordance with ESMCR 900-1, 15 May 1980, Patrick AFB Company Grade Officer Awards. Nominations not received on time and in the correct format will not be accepted. All nominees must appear before the selection board in person. Orderly room personnel will be notified of time and place for each nominee to report. (6550 ABG/DPMAP/TSgt Jones/2919)

*8. NEWLY ESTABLISHED POSITIONS. The Civil Engineering Squadron is filling the position of Plumber (Sewage Disposal Plant Operator), WG-4206-9, located in the Water and Waste Shop. The purpose of the position is to perform the operation and maintenance of water and wastewater plumbing systems, conventional activated sludge and industrial waste treatment plants, and Base swimming pools. There are two vacancies. Incumbent must possess a current class "C" Wastewater Plant Operator's Certificate, issued by the State of Florida. Employees will receive consideration through the Automated Promotion and Placement Referral System (PPRS). No memos will be accepted. (6550 ABG/DPCR/Symons/7663)

*9. INFORMATION SYSTEMS CAREER PROGRAM. Six new career broadening positions (GS-12 thru GS-14) have been established for the Information Systems Career Program (ISCP). Each position will be for a two to three year assignment. Applicants may be subject to reassignment at the end of the career broadening assignment and mobility is a condition of placement. Information regarding position locations, duties, proposed grade levels and application requirements is available in the Civilian Personnel Office Lobby, Bldg 536, Patrick AFB. Applications/nominations must be forwarded to arrive at OCPO/DPCCI no later than 16 Dec 1985. Contact Mr Walker or Mr Duck, AV 487-3692/3693, for additional information. (6550 ABG/DPCR/McGovern/7663)

FOR THE COMMANDER

LAURIE T. LANIER, Major, USAF
Chief, Base Administration

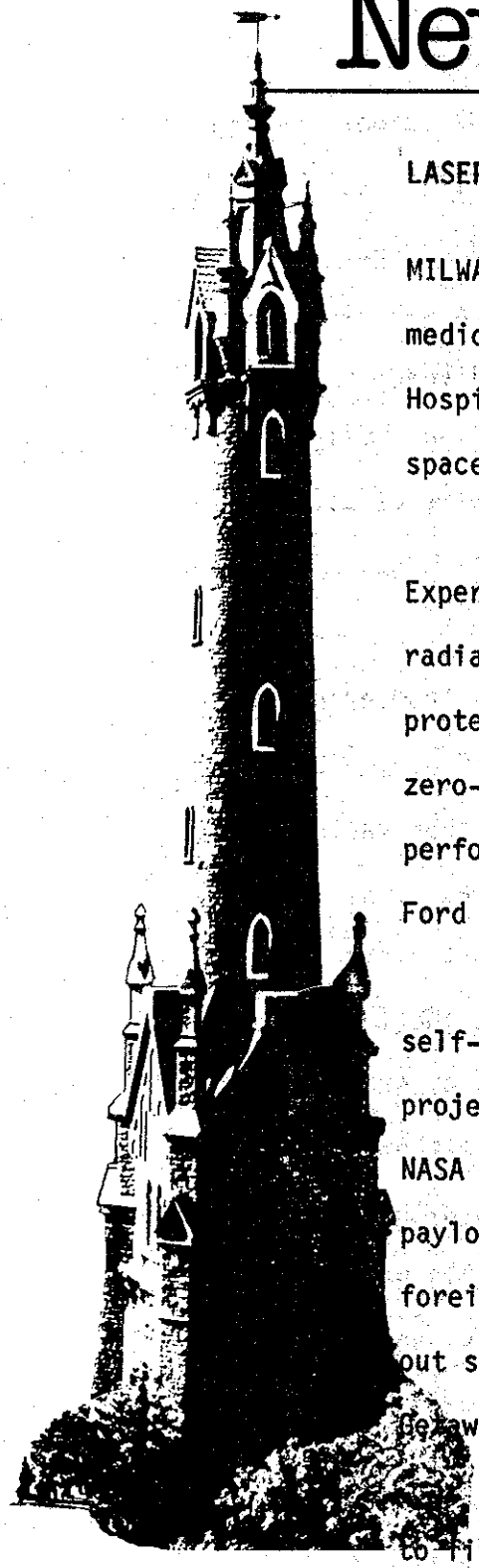
*Denotes repeated item

INFORMATION

MEMBERS OF THE 6550 AIR BASE GROUP who are interested in joining a women's team for the extramural volleyball season call DePass at 494-7834. (ESMC/PA/Capt Leong/5933)

IF.6 H29

News Release



LASER EXPERIMENTS FROM ST. MARY'S HOSPITAL ABOARD SHUTTLE

MILWAUKEE, WI (December 12,1985)-- Project JULIE, a series of 20 medically-related laser experiments developed by St. Mary's Hospital of Milwaukee, Wisconsin, will fly aboard the December 18 space shuttle Columbia flight.

Project JULIE (Joint Utilization of Laser Intergrated Experiments) will study the effects of laser light, cosmic radiation and weightlessness on medications, human tissues, laser protective eyewear, fiberoptics and other materials in the zero-gravity environment of space. Also, an experiment will be performed to do blood typing in space. It is sponsored by A. Ward Ford Memorial Institute.

St. Mary's is the first hospital to have a small self-contained payload experiment aboard a shuttle flight. The project is one of 13 "getaway specials" that has been accepted by NASA for the December 18 flight. NASA flies self-contained payloads from industry, educational institutions, domestic and foreign governments, as well as from individuals who wish to carry out scientific research on a space shuttle flight through its Getaway Special Progam.

The projects may weigh up to 200 pounds and may measure up to five cubic feet.

St. Mary's Hospital

Community Relations Dept.
2323 North Lake Drive
Post Office Box 503
Milwaukee, WI 53201
(414) 225-8033

-more-

The effects of lasers and cosmic radiation on medications used in cancer treatment will be evaluated following the space flight to determine if changes in the crystalline structure have occurred. Fiberoptics carried aboard the shuttle will be studied to see if structural changes have taken place; this research could lead to the development of optics with greater tensile strength and the ability to resist the effects of laser light. Protective eyewear filters will also be studied to determine how well they endure a gravity-free environment and cosmic bombardment.

More than a dozen laser scientists and physicians from around the country have contributed their expertise to Project JULIE since 1983, when NASA authorized the project. It was developed and coordinated by Myron C. "Mike" Muckerheide, director of the laser program at St. Mary's.

"The main emphasis of the experiments is to look at fiber optics, pharmaceuticals, some surgical material like sutures and the lasers themselves to see if they will be changed by the effects of space," said Muckerheide. "Those changes could improve things or make them worse."

"However, we hope the experiments will provide us with novel insights into how to make better lasers and pharmaceuticals here on earth." He said the findings from Project Julie will have applications in neurosurgery, cancer therapy and ophthalmology. He said the team of researchers working on the project are among the best minds in the country.

Muckerheide said the JULIE payload, which weighs 80 pounds, will carry a total of seven lasers. He said companies across the country will assist St. Mary's in analyzing the results of the experiments.

"The space program has given man access to a magnificent laboratory that offers the opportunity to reach into the future. As in the past, the future is locked in the minds of men," Muckerheide said. "The space program is one of the best ways to unlock the mysteries that have intrigued us."

Project JULIE, NASA's Getaway Special Payload #449, is equipped with its own controls, electronics and power supply. The experiment will be initiated and terminated from the shuttle cockpit by an astronaut.

Sister Julie Hanser, D.C., president and chief executive officer of St. Mary's explained why St. Mary's chose to participate in this project.

"The mission of St. Mary's Hospital is to extend the healing ministry of Jesus Christ in today's world," she said. "The opportunity to participate with the National Aeronautics and Space Administration in an experiment which has significant potential to expand the development of health care, and which may increase the technology required to alleviate human suffering, is truly exciting. Isn't it awesome to realize that a private hospital in Milwaukee, Wisconsin, can work with NASA, and the two can combine their resources in a project like this? We're pleased the space program is willing to share some of its energy, resources and capabilities for health care research."

Hanser calls Project JULIE a commonsense extension of previous advances achieved through the space program. She said other technological advancements achieved in space have brought medical tools such as heart monitors and other diagnostic devices that use micro-electronics.

Dr. P. Daniel Suberviola, a neurosurgeon and chairman of the laser committee at St. Mary's Hospital, said laser machines used in the operating room now are bulky and cost about $150,000 apiece. He said the fiber-optic experiments that will be carried out through Project JULIE might produce new materials or insights that could greatly reduce the size and cost of laser equipment.

Sister Julie added that the hospital's space project is being funded entirely through private donations. The total cost to participate in the program was under $10,000.

Columbia's December 18 flight will be under the command of Commander Robert L. Gibson, U.S.N. Following Columbia's return to earth after a five-day flight, Project JULIE will be returned to St. Mary's Hospital for extensive evaluation of all our experiments aboard. Muckerheide said the evaluation may take up to a year.

For further information about St. Mary's Project JULIE, please call the Corporate Communications Department of St. Mary's Hospital at (414)225-8033 or (414)225-8018.

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IF.6 4/22

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Lisa Malone
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KSC RELEASE NO. 1-85

RIDE SHARING SURVEY TO BE CONDUCTED AT KSC AND CAPE CANAVERAL

KENNEDY SPACE CENTER, Fla. — Over 16,000 copies of a transportation survey will be distributed to all KSC and Cape Canaveral Air Force Station employees so that ride-sharing plans can be more efficient, reliable and economic, said Jim Orr, KSC ride-sharing coordinator. The survey is targeted for the end of January.

"The Brevard Transit Authority (BTA) will be assisting KSC by giving us a demographic analysis of all KSC employees. The information from the survey will be put into BTA's data base, which will match people and help employees to form more cohesive and durable van and carpools," said Orr, who is also an industrial engineer in the Engineering and Energy Management Branch of Support Operations.

"The computer will separate the information into three sections: The Cape Canaveral Air Force Station, the KSC Industrial area and the VAB area," explains Arleen Lydtin, of the BTA ride sharing program. She said it will take approximately two to three weeks to process the survey information for each area. The computer can place people within a nine-mile radius into one car or vanpool, but the standard radius is two-four miles, said Lydtin.

Survey information will be provided to ride share agencies for Orange, Osceola and Seminole counties to the west, and Volusia to the north, to assist commuters from those areas.

NASA Security Specialist Gary Fooks said, "We have three major areas of traffic congestion and parking problems on center: The LC 39 area including the VAB, Boxcar City, and the Operations and Checkout Building which has a flux of cargo customers.

"One of the problems is that the main roads haven't been modified since they were made. We are constantly adding facilities and work places to existing roads which obviously creates more traffic," Fooks added. "It certaintly couldn't hurt if more people would car or vanpool."

Previous surveys indicate that there are about 1.5 persons per car that commute to the center. "That figure translates into about 70 percent of the work force riding one person per car," said Bill Holden, former KSC ride sharing coordinator.

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"The trick is to break Americans love affair's with their cars," Holden added.

"There are currently four vanpools coming from Titusville, Cocoa, Melbourne and Indiatlantic which go to a designated area on center," said Orr. These four vanpools carry 43 people and travel up to 98 miles roundtrip. Two of the vans are being leased from BTA.

Orr says there are four major benefits from car or vanpooling: (1) a reduction in mileage on personal automobiles; (2) conservation of a national energy source; (3) a reduction in traffic and parking problems; and (4) getting to work on time. Other advantages include a reduction in commuting and insurance costs, less wear and tear on personal automobiles and a reliable means of transportation.

For example, according to a BTA cost estimation — the cost per month of commuting 50 miles roundtrip in a BTA vanpool is estimated at $32.43. This includes the van lease, insurance and administration costs.

In comparison, the U.S. Department of Transportation currently estimates that the cost for a single driver per sub-compact car is $417 per month for a 50 mile roundtrip, and $562 per month for a large car. Three-fourths of the expenses are connected with ownership costs (i.e. monthly payments, insurance and maintenance), and the remaining costs cover operating expenses such as gasoline and oil.

KSC Civil Service management supports ride-sharing and offers three suggestions to supervisors: (1) allow up to one hour change of individual duty hours; (2) allow employees use of an assigned duty vehicle overnight when medical emergencies or unscheduled overtime (KHB 6000.1A) prevent return home with car or vanpool; and (3) provide reserved parking for private and BTA vanpools.

BTA vanpool agreements establish reliability for the driver and riders. Riders pay a one-month non-refundable advance fee for the service. "We provide car or vanpool brochures that provide tips and suggestions," said Lydtin.

The driver of a vanpool must have a chauffeur's license, and is responsible for collecting money from riders, paying the lease of the van, and scheduling maintenance. In exchange for the responsibility of the van, the driver rides free, and has some limited personal use of the vehicle. A vanpool is made up of seven to 15 members with the van owned by the driver, a KSC contractor, or a third-party such as BTA.

Contact the BTA Commuter's Choice RideSharing Program at 676-5646 for further information. Jim Orr, KSC ride sharing coordinator can also be contacted at 867-7793.

# # # #

Jan. 8, 1985

IF6 H 2 2

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Immediate

Dick Young
Area Code 305/867-2468

KSC RELEASE NO. 3-85

NOTICE TO EDITORS/NEWS DIRECTORS:

PRESS PREVIEW OF "FLIGHT OF THE AURORA" SCHEDULED JAN. 11

KENNEDY SPACE CENTER, Fla. - A press preview of "Flight of the Aurora," a spectacular, new multi-media glimpse of our future in space, will be held at Spaceport USA at KSC at 11 a.m. on Friday, Jan. 11.

The press preview will precede the grand opening of the show Friday evening for a special audience from 6 to 9:30 p.m. "Flight of the Aurora" will be open to the public taking in the attractions at the KSC visitors complex beginning on Saturday, Jan. 12.

Media representatives attending the Friday morning preview should check in at Room 2001 in the administrative complex on the eastern end of Spaceport USA by 11 a.m. to pick up press materials and an escort to the Galaxy Theater.

The 30-minute show uses a wide variety of spectacular audio-visual techniques to make an imaginative and dramatic presentation on humanity's past accomplishments and possible future directions in space. The Galaxy Theater is part of a modernistic, new, two-theater complex included in an $8.5 million investment program by TWServices, KSC's tour concessionaire, to enhance the quality and scope of attractions at Spaceport USA. The other theater is used for showings of the IMAX wide-screen motion picture "Hail Columbia."

The Friday night grand opening will have Leonard Nimoy as master of ceremonies. It will include a spectacular fireworks display which will light up the Brevard sky at approximately 9 p.m. and the public showing of the first unit of a modern, two-decker bus fleet which will be used for the Spaceport USA public bus tour operation.

Media representatives who require additional information should contact the News Center at Area Code 305/867-2468.

# # # # #

Jan. 8, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Deborah Marth
(305)867-2468

Immediate

KSC RELEASE NO.11-85

HOLLOWAY CORPORATION WINS CONTRACT WITH NASA

KENNEDY SPACE CENTER, FL. --NASA's John F. Kennedy Space Center has awarded Holloway Corporation of Titusville, Fla., a $132,677 contract for modifications to the Operations and Checkout Building (O&C) for payload test and integration.

The fixed price contract calls for Holloway Corporation to modify a coolant control room by raising the floor level and installing new power panels and receptacles. A Halon fire suppression system and the addition of power recepticles in the high bay integration area will also be installed.

The contract includes extension of the north rails in the high bay area. The north rails are used for placement of certain test equipment.

The awarded contract, one set aside for small businesses, requires Holloway Corporation to complete all work within 210 days after receipt of notice to proceed with operations.

The O&C Building is a five story structure containing offices, laboratories, astronaut crew quarters and spacecraft assembly areas.

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M. Konjevich
SI
SI-SRV-1

IF.6 #22

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Deborah Marth
(305) 867-2468

Immediate

KSC RELEASE NO.31-85

MERRITT ISLAND FIRM WINS BID FOR EQUIPMENT TEST BUILDING

KENNEDY SPACE CENTER Fla., -- NASA's John F. Kennedy Space Center has awarded Costello Construction Company Inc., Merritt Island, Fla., a $74,350 contract for the construction of a storage building for the Launch Equipment Test Facility (LETF).

Under the contract, Costello Construction is responsible for the construction of the LETF storage facility, which will be a pre-engineered metal building.

Costello Construction will also provide site preparation, installation of a concrete slab and utilities.

The fixed price contract, one set aside for award to small businesses, calls for completion of the building within 60 days of notice to proceed.

Kennedy Space Center is the prime launch and landing site for the Space Shuttle, scheduled for launch on its next mission no earlier than March 3.

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Feb. 16, 1985

M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Deborah Marth
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IMMEDIATE

KSC RELEASE NO 32-85

CAPE CANAVERAL FIRM WINS CONTRACT FOR GROUND SUPPORT FACILITY

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Doug Wilson Enterprises, Inc., Cape Canaveral, Fla., a $98,439 contract for the construction of a Ground Support Equipment Storage Facility.

Under the contract, Wilson Enterprises is responsible for the construction of a pre-engineered metal building located outside the Orbiter Processing Facility.

The building will be constructed to the south of the OPF low bay on a concrete slab with reinforced concrete foundations. The contract also includes site preparation and utilities installation.

The fixed price contract, one set aside for award to a small business, calls for Wilson Enterprises to complete all work on the facility within 200 days of notice to proceed.

Kennedy Space Center is the prime launch and landing site for the Space Shuttle, scheduled for launch on its next mission no earlier than March 3.

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Feb. 19 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Deborah Marth
Area Code (305) 867-2468

KSC Release No: 36-85

GENERAL AVIATION RESTRICTED FROM KSC AIRSPACE DURING LAUNCH

KENNEDY SPACE CENTER, Fla. -- During the launch of the Orbiter Challenger on its seventh flight into space, scheduled for early March, the skies in the vicinity of the space center will be reserved for official mission aircraft and will be off-limits to general aviation pilots beginning three hours prior to the scheduled launch.

The possibility of mid-air collisions and the other hazards associated with a Space Shuttle launch and landing dictate that surrounding airspace be cleared.

All restricted areas associated with the space center will be activated for the launch. The areas immediately surrounding the space center are expected to be extremely congested with both controlled and uncontrolled air traffic. The more prudent pilot may wish to remain grounded during the Shuttle launch rather than risk the chance of a collision or a violation of Federal Aviation regulations.

Violations may result in sanctions against pilots, including suspension or revocation of pilot privileges.

Pilots who find it absolutely necessary to be airborne on the day of the launch are advised to stay well west of the Indian River and seek traffic advisories from the Patrick Approach Control (VHF 119.25 kilohertz), TICO (TIX) Airport Tower (VHF 118.9 kilohertz), or Melbourne FSS on discrete frequencies VHF 122.6 or 123.6.

At all other times, it is stressed, general aviation pilots are requested to contact Melbourne Flight Service Station for parameter status of the restricted area.

# # #

Feb. 25, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Deborah Marth
Area Code (305) 867-2468

For Release:
Immediate

KSC RELEASE NO: 35-85

WATERWAY BRIDGE OPENINGS TO BE CONTROLLED ON 51-E LAUNCH DAY

KENNEDY SPACE CENTER, Fla.-- The opening and closing of bridges over waterways surrounding the Kennedy Space Center will be strictly controlled during the hours immediately before and after the launch of the Space Shuttle Challenger on its seventh mission.

The launch is now scheduled for 8:31 a.m. on Monday March 4, but the restrictions will apply on subsequent launch dates should a delay be encountered.

The U.S. Coast Guard's Seventh District in Miami has given KSC authority to restrict the operation of the bridges from three hours before launch, if needed, until three hours after liftoff to facilitate the flow of vehicular traffic in and out of the space center.

Beginning at T-3 hours, bridges will be opened for five minutes every half-hour. They will remain closed from T-60 minutes until T plus 90 minutes. Beginning at T plus 90 minutes, they will be opened for five minutes every half hour until T plus three hours, at which time normal opening procedures will be resumed.

Bridges to be affected by these regulations include:

* - The Canaveral Harbor/Barge Canal Bridges at State Road 3 on Merritt Island, and State Road 401 at Port Canaveral.

* - The Intercoastal Waterway bridges over the Indian River at Addison Point (NASA Causeway).

* - The Banana River Bridge between KSC and Cape Canaveral Air Force Station (NASA Causeway East).

The bridge over Haulover Canal, which links the Indian River with Mosquito Lagoon, will be oriented in an open position at 4:30 p.m. on T-1 day to halt vehicular traffic, but will be lowered to its normal position shortly after launch.

# # #

Feb. 27, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Deborah Marth
(305) 867-2468
KSC Release No. 37-85

BOAT TRAFFIC NEAR KSC WILL BE RESTRICTED DURING 51-E LAUNCH

KENNEDY SPACE CENTER, Fla. — Safety considerations require that certain areas of the Atlantic Ocean and shallow lagoons near and on Kennedy Space Center be closed to boat traffic during the upcoming Space Shuttle launch.

Coast Guard vessels will be patrolling the secured areas. Boaters who have any questions about where they will be permitted to travel the morning of the launch should monitor Channel 16 VHF-FM, for detailed information. Advisories will be broadcast every hour on the hour beginning at T-3 days. The restricted areas are as follows:

In the Atlantic, boat travel is restricted anywhere south of an imaginary line drawn eastward from Haulover Canal and extending three miles out to sea. No boat travel is permitted north of the Port Canaveral buoy lines. The boundary also extends three miles out. Boaters are advised that a launch danger zone rests within the same boundaries for a distance of 180 miles offshore.

In Mosquito Lagoon, no boat traffic is allowed in that portion of the lagoon to the south of Haulover Canal.

For portions of the Indian River north of Titusville, boat traffic is generally restricted to the areas near the channel or west of the channel. Coast Guard patrol boats will secure areas near the eastern shoreline.

For areas of the Indian River south of Titusville, boat travel will be restricted from entering Banana Creek or from encroaching on the eastern shoreline.

In the Banana River, boats will not be allowed north of marker 35 or east of the marked channel.

These restrictions on boat travel commence at T-3 hours, and will be lifted four hours after the launch. The only exception is that the 3-mile offshore security zone in the Atlantic is enforced whenever a Shuttle vehicle is on the pad.

# # #

Feb. 27, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.6 #22

For Release:

Lisa Malone
(305) 867-2468

IMMEDIATE

KSC RELEASE NO. 46-85

NOTICE TO EDITORS/NEWS DIRECTORS:
INTELSAT VA-F10 PRESS CONFERENCE SCHEDULED FOR MARCH 18

KENNEDY SPACE CENTER, Fla. -- The pre-launch press conference for the Intelsat VA-F10 satellite to be launched aboard Atlas/Centaur 63 is scheduled for Monday, March 18 at 11 a.m. EST.

The launch is scheduled to occur no earlier than March 19 from launch complex 36. Three launch windows for the March 19 launch opportunity extend from: 6:58 to 7:17 p.m., 7:50 to 8:09 p.m., and 8:35 to 8:58 p.m. EST.

Intelsat VA-F10 is the eighth in a series of 10 Intelsat V-type international telecommunications satellites to be orbited for the 108-member International Telecommunications Satellite Organization between 1980 and 1985.

Press representatives should be at the press site dome by 10:15 a.m. Monday to be escorted to the 11 a.m. press conference at the E&O Building, Cape Canaveral Air Force Station (CCAFS). The conference will be carried on the V-2 circuit.

News media representatives with permanent credentials may start driving to Press Site 1 on CCAFS at 5:30 p.m. Tuesday, March 19, to cover the launch.

Those without permanent press credentials may obtain a temporary badge at Gate 1 on CCAFS from 5:30 to 6:15 p.m. on March 19.

# # # # #

March 11, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Deborah Marth
(305) 867-2468

Immediate

KSC RELEASE NO. 48-85

"SPACEPORT USA" ATTRACTS MORE VISITORS IN FEBRUARY

KENNEDY SPACE CENTER, Fla. -- A total of 125,474 visitors took guided bus tours of the nation's Spaceport in February, an increase of 6.4 percent compared to the 117,978 taking the tours in February, 1984.

Figures for the first two months of 1985 show that over 200,000 people have visited "Spaceport USA" this year, more than half of them taking the nominally-priced, two-hour tours of the state's fourth most heavily-attended tourist destination.

Arnold Richman, Chief of the Visitors Services Branch, said: "The public's growing awareness of the space program is bringing many new and repeat visitors to the Space Center to see for themselves their own space program and the newly added facilities such as the IMAX Theater now featuring the "Hail Columbia film on a six-story-tall screen."

The response to both the film and the newly added facilities has been very positive, prompting Richman to add: "We and TWS are gearing up for the large crowds expected over the Easter holiday, including those students on spring break. To accommodate everyone, we will be ready with our new fleet of 14 double decker buses in time for the spring rush."

The Visitors Center features two huge theaters, expanded food and sourvenir services, and the modernization of exhibits and other attractions in the Hall of History and main exhibit hall.

# # #

March 12, 1985

M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF-6 5

For Release:

Deborah Marth
(305) 867-2468
KSC Release No. 75-85

IMMEDIATE

BOAT TRAFFIC NEAR KSC WILL BE RESTRICTED DURING 51-B LAUNCH

KENNEDY SPACE CENTER, Fla. -- Safety considerations require that certain areas of the Atlantic Ocean and shallow lagoons near and on Kennedy Space Center be closed to boat traffic during the upcoming Space Shuttle launch scheduled for no earlier than April 29.

Coast Guard vessels will be patrolling the secured areas. Boaters who have any questions about where they will be permitted to travel the morning of the launch should monitor Channel 16 VHF-FM, for detailed information. Advisories will be broadcast every hour on the hour beginning at T-3 days. The restricted areas are as follows:

In the Atlantic, boat travel is restricted anywhere south of an imaginary line drawn eastward from Haulover Canal and extending three miles out to sea. No boat travel is permitted north of the Port Canaveral buoy lines. The boundary also extends three miles out. Boaters are advised that a launch danger zone rests within the same boundaries for a distance of 180 miles offshore.

In Mosquito Lagoon, no boat traffic is allowed in that portion of the lagoon to the south of Haulover Canal.

For portions of the Indian River north of Titusville, boat traffic is generally restricted to the areas near the channel or west of the channel. Coast Guard patrol boats will secure areas near the eastern shoreline.

For areas of the Indian River south of Titusville, boat travel will be restricted from entering Banana Creek or from encroaching on the eastern shoreline.

In the Banana River, boats will not be allowed north of marker 35 or east of the marked channel.

These restrictions on boat travel commence at T-3 hours, and will be lifted four hours after the launch. The only exception is that the 3-mile offshore security zone in the Atlantic is enforced whenever a Shuttle vehicle is on the pad.

# # #

April 23, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

Deborah Marth
Area Code (305) 867-2468

For Release:
Immediate

KSC RELEASE NO: 76-85

WATERWAY BRIDGE OPENINGS TO BE CONTROLLED ON 51-B LAUNCH DAY

KENNEDY SPACE CENTER, Fla.-- The opening and closing of bridges over waterways surrounding the Kennedy Space Center will be strictly controlled during the hours immediately before and after the launch of the Space Shuttle Challenger on its seventh mission.

The launch is now scheduled for 12:00 p.m. on Monday April 29, but the restrictions will apply on subsequent launch dates should a delay be encountered.

The U.S. Coast Guard's Seventh District in Miami has given KSC authority to restrict the operation of the bridges from three hours before launch, if needed, until three hours after liftoff to facilitate the flow of vehicular traffic in and out of the space center.

Beginning at T-3 hours, bridges will be opened for five minutes every half-hour. They will remain closed from T-60 minutes until T plus 90 minutes. Beginning at T plus 90 minutes, they will be opened for five minutes every half hour until T plus three hours, at which time normal opening procedures will be resumed.

Bridges to be affected by these regulations include:

* - The Canaveral Harbor/Barge Canal Bridges at State Road 3 on Merritt Island, and State Road 401 at Port Canaveral.

* - The Intercoastal Waterway bridges over the Indian River at Addison Point (NASA Causeway).

* - The Banana River Bridge between KSC and Cape Canaveral Air Force Station (NASA Causeway East).

The bridge over Haulover Canal, which links the Indian River with Mosquito Lagoon, will be oriented in an open position at 4:30 p.m. on T-1 day to halt vehicular traffic, but will be lowered to its normal position shortly after launch.

# # #

April 23, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.6
H22

For Release:

Deborah Marth
Area Code (305) 867-2468

IMMEDIATE

KSC Release No: 77-85

GENERAL AVIATION RESTRICTED FROM KSC AIRSPACE DURING 51-B LAUNCH

KENNEDY SPACE CENTER, Fla. -- During the launch of the Orbiter Challenger on its seventh flight into space, scheduled for April 29, the skies in the vicinity of the space center will be reserved for official mission aircraft and will be off-limits to general aviation pilots beginning three hours prior to the scheduled launch.

The possibility of mid-air collisions and the other hazards associated with a Space Shuttle launch and landing dictate that surrounding airspace be cleared.

All restricted areas associated with the space center will be activated for the launch. The areas immediately surrounding the space center are expected to be extremely congested with both controlled and uncontrolled air traffic. The more prudent pilot may wish to remain grounded during the Shuttle launch rather than risk the chance of a collision or a violation of Federal Aviation regulations.

Violations may result in sanctions against pilots, including suspension or revocation of pilot privileges.

Pilots who find it absolutely necessary to be airborne on the day of the launch are advised to stay well west of the Indian River and seek traffic advisories from the Patrick Approach Control (VHF 119.25 kilohertz), TICO (TIX) Airport Tower (VHF 118.9 kilohertz), or Melbourne FSS on discrete frequencies VHF 122.6 or 123.6.

At all other times, it is stressed, general aviation pilots are requested to contact Melbourne Flight Service Station for parameter status of the restricted area.

# # #

April 23, 1985

IF.6 #22

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Andrea Shea
(305) 867-2468

KSC RELEASE NO. 61-85

NASA SPOKESMAN TO ADDRESS WORLDWIDE MINI-COMPUTER MANUFACTURERS

KENNEDY SPACE CENTER, Fla. -- NASA's Space Shuttle Program and related activities at Kenned Space Center will be the topic of a presentation to be given on May 22, when NASA spokesman Gene Rocque addresses Prime Computer Technical Support Specialists.

The talk will be given to Prime Computer's top technical specialists who are convening from worldwide locations at the Bonaventure Hotel & Spa, a Radisson Resort, 250 Racquet Club Road, Ft. Lauderdale, Florida for a three-day technical seminar. Prime Computer manufactures and markets super mini-computers. Rocque is scheduled to make his presentation at 11:00 a.m.

Planning future Space Shuttle launches is Rocque's responsibility in his job with the Mission Planning Office in the Launch and Landing Operations Directorate at Kennedy Space Center.

Media are invited to attend this event, and should contact Joe Gavaghan at (617) 655-8000, ext. 7396 for further details.

May 9, 1985

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M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Andrea Shea
(305) 867-2468

KSC RELEASE NO. 89-85

LEESBURG KIWANIANS TO LEARN ABOUT NASA SPACE STATION

KENNEDY SPACE CENTER, Fla. -- NASA's Space Station and related activities at Kennedy Space Center will be the topic of a presentation to be given on May 21, when NASA spokesman Gene Rocque addresses the Leesburg Kiwanis Club.

The talk will be given at 6 p.m. in the Community Building, Leesburg, Florida.

Planning future Space Shuttle launches is Rocque's responsibility in his job with the Mission Planning Office in the Launch and Landing Directorate at Kennedy Space Center.

Both the public and media are invited to attend this event, and should contact Dennis Beck at (904) 787-2226 for further details.

May 9, 1985

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

IMMEDIATE

Andrea Shea
(305) 867-2468

KSC RELEASE NO. 90 -85

NASA SPOKESMAN TO ADDRESS INTERNATIONAL SECURITY MANAGEMENT

KENNEDY SPACE CENTER, Fla. --NASA's Space Station and related activities at Kennedy Space Center will be the topic of a presentation to be given on May 22, when NASA spokesman Bob Gunter addresses the International Security Management Association.

The talk will be given at 11 a.m. at the Orlando Hyatt Hotel in Orlando, Florida.

Gunter is the technical assistant to the manager of the Space Station and Advanced Projects office at Kennedy Space Center. He was involved in Space Shuttle development and is currently active in development of the proposed Space Station.

Media representatives are invited to cover this event, and should contact Tom Sanford at (305) 867-2101 for further details.

May 9, 1984

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Michael Lovetto
(305) 867-2468

IMMEDIATE

KSC NEWS RELEASE NO. 98-85

COCOA FIRM WINS CONTRACT FOR ROBOTIC CONTROL HOUSING

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Met-Con, Inc. of Cocoa, Fla. a $31,450 contract for the construction of robotic control housing to be used in robotics research and development.

Under the contract, Met-Con will be responsible for delivery and installation of a prefabricated indoor room to be used for robotic control. The room will serve as control center for a large robot to be used in robotics research and development. Research and development carried out in this area carries with it a future potential for space station applications.

The fixed-price contract, one set aside for award to small businesses, requires Met-Con to complete all work within 45 days of notice to proceed.

Kennedy Space Center is the primary launch and landing site for the Space Shuttle. The orbiter Discovery is tentatively scheduled for launch on its next mission on June 17, 1985.

# # # #

June 3, 1985

M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Michael Lovetto
(305) 867-2468

IMMEDIATE

KSC NEWS RELEASE NO. 97-85

LAKELAND FIRM WINS CONTRACT FOR ADDITION TO TEST SUPPORT FACILITY

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Specialty Maintenance and Construction, Inc. of Lakeland, Fla. a $2,425,590 contract for an addition to the Test Group Support Facility at Cape Canaveral Air Force Station.

Under the contract, Specialty Maintenance and Construction will be responsible for the construction of an addition to the Test Group Support Facility, which will be used for support of test group programs.

The fixed-price contract, one set aside for award to small businesses, requires Specialty Maintenance and Construction to complete all work within 345 days of notice to proceed.

Kennedy Space Center is the primary launch and landing site for the Space Shuttle. The orbiter Discovery is tentatively scheduled for launch on its next mission on June 17, 1985.

# # # #

June 4, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Dick Young
Area Code 305/867-2468

Immediate

RELEASE NO. 109-85

INTELSAT PRE-LAUNCH CONFERENCE SET FOR JUNE 28

KENNEDY SPACE CENTER, Fla. - A pre-launch news conference on the Intelsat VA-F11 mission will be held in the E&O Building at Cape Canaveral Air Force Station at 11 a.m. on Friday, June 28.

Launch of the high-capacity communications satellite aboard an Atlas Centaur rocket is scheduled from NASA's Complex 36 on Saturday, June 29, during a window extending from 6:58 to 8:52 p.m. EDT.

News media representatives who wish to attend the pre-launch conference should be at the Complex 39 Press Site no later than 10:30 a.m. on Friday, June 28. Transportation to and from the E&O Building will be provided. Those without permanent credentials should contact the News Center at Area Code 305/867-2468 to make access arrangements.

On launch day, news media representatives with permanent credentials may drive through CCAFS Gate 1 on Florida Route 401 to Press Site 1 beginning at 5:30 p.m. The Air Force will badge those without permanent credentials at the Gate 1 Pass and Identification Building between 5:30 and 6:30 p.m.

# # # # #

June 20, 1985

ARCH00004578

1F.6 #12

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Andrea Shea-King
(305) 867-2468

September 11, 1985

KSC RELEASE NO. 186-85

PLANNING RESEARCH CORP. SHUTTLE CENTAUR CONTRACT EXTENDED

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has extended an existing contract with Planning Research Corporation (PRC) Systems Services Co. of Cocoa Beach, Florida. The $12,421,841 extension brings the total contract value to $66,187,413.

The agreement calls for PRC to provide engineering services for the Directorate of Engineering Development at the Kennedy Space Center, and at Vandenberg Air Force Base, California.

The cost-plus-fixed-fee contract extends the period of performance from January 1, 1986 through September 30, 1986.

Under the terms of the contract, PRC is responsible for designing ground support systems for the Shuttle Centaur program. The Shuttle Centaur will be used to inject space vehicles into interplanetary trajectories after deployment from the Space Shuttle.

First use of the high-energy Centaur upper stage will be on the Ulysses International Solar Polar Mission, which will explore the sun from an orbit over its polar zones and the Galileo Mission, an exploration of Jupiter's environment. These two interplanetary missions are scheduled to be launched, from KSC, within six days of each other in May, 1986.

PRC will also provide designs for Shuttle launch support equipment for the Department of Defense at VAFB. Vandenberg Air Force Base will become the second launch and landing facility for the Shuttle in the mid-1980's. VAFB will be used primarily by the Department of Defense to launch payloads into a polar orbit.

Another major responsibility under this contract is to provide KSC with designs for shuttle-cargo ground support equipment.

Planning Research Corp. has served as prime contractor to KSC's Engineering Development Directorate since 1974. In that role, the company designs ground systems and equipment in support of the Shuttle and its payloads at KSC and for the Department of Defense.

-30-

M. Konjevich
SI
SI-SRV-1

1F.6 #11

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Andrea Shea-King
305 867-2468
KSC RELEASE NO: 187-85

IMMEDIATE

INTERNATIONAL SAFETY INSTRUMENTS LANDS KSC CONTRACT

KENNEDY SPACE CENTER, Fla. — NASA's John F. Kennedy Space Center has awarded International Safety Instruments, Inc. of Lawrenceville, Ga. a $247,758 contract to provide self-contained breathing units for emergency use by Spaceport workers.

The self-contained breathing apparatus furnishes a 10-minute supply of oxygen for life support in an emergency situation. The contract initially calls for 1785 units, with a provision for up to 500 more.

The fixed-price, indefinite-quantity contract, one set aside for award to small businesses, calls for International Safety Instruments, Inc. to complete the contract within 60 days after notice to proceed.

The self-contained breathing units will be manufactured at International Safety Instruments, Inc. Hurricane Shoals Road location in Lawrenceville.

Kennedy Space Center is NASA's major launch and landing site for the Space Shuttle.

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Sept. 11, 1985

1F.6 422

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Andrea Shea-King
305 867-2468
KSC RELEASE NO: 188-85

IMMEDIATE

INTERGRAPH CORP. LANDS MILLION DOLLAR CONTRACT WITH NASA

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Intergraph Corporation of Huntsville, Ala. a $1,350,346 contract to provide computer-aided design, drafting and documentation functions.

Under the terms of the fixed price contract, Intergraph Corp. will provide an on-line interactive graphic system capable of handling design, analysis and documentation tasks at NASA's Marshall Space Flight Center in Huntsville and at Kennedy Space Center in Florida.

The contract, awarded August 29, 1985, calls for a 16-month period of performance.

The Kennedy Space Center is NASA's prime launch and landing site for the Space Shuttle.

# # #

Sept. 11, 1985

IF-6 #11

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

George H. Diller
Area Code (305) 867-2468

Immediate

RELEASE NO. 191-85

INTELSAT PRE-LAUNCH NEWS CONFERENCE SET FOR SEPT. 25

KENNEDY SPACE CENTER, Fla. - A pre-launch news conference on the Intelsat VA-F12 mission will be held in the E&O Building on Cape Canaveral Air Force Station at 11 a.m. on Wednesday, Sept. 25.

Launch of the high-capacity communications satellite aboard an Atlas Centaur rocket is scheduled from NASA's Complex 36 on Thursday, Sept. 26, during a window extending from 7:35 to 9:30 p.m. EDT.

News media representatives who wish to attend the pre-launch conference should be at the News Center no later than 10:30 a.m. on Wednesday, Sept. 25. Transportation to and from the E&O Building on Cape Canaveral Air Force Station will be provided. Those without permanent credentials should contact the News Center at Area Code (305) 867-2468 to make advance arrangements.

On launch day, news media representatives with permanent credentials may drive through CCAFS Gate 1 on Route 401 to Press Site 1 beginning at 6:00 p.m. Those photographers going to the advance photo site at Complex 14 should be at Press Site 1 by 6:30 p.m. The U.S. Air Force will badge those without permanent credentials at the Gate 1 Pass & Identification Building between 6:00 and 7:00 p.m.

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Sept. 16, 1985

IF-6 #11

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Dick Young
Area Code 305/867-2468

Immediate

Release No. 194-85

MISHAP INVESTIGATION BOARD APPOINTED TO REVIEW PAD B INCIDENT

KENNEDY SPACE CENTER, Fla. - A mishap investigation board appointed by KSC Director Richard G. Smith has begun its review of the circumstances surrounding an incident at Pad B at Launch Complex 39 on Sept. 18 in which portions of a telescoping tube on a pad structure fell to the pad floor.

No injuries resulted from the incident and a cost estimate of the damage has not yet been established.

The board is chaired by T. D. Greenfield, chief, Networks Engineering Division, Electronic Engineering Directorate. Members include James L. Joyner, Center Support Operations Directorate, and Emmitt A. Reynolds, Shuttle Engineering Directorate. Safety advisers are Jay Wortman and Robert A. Gerron. Legal adviser is Douglas G. Hendriksen of the Chief Counsel's Office.

The board met Sept. 19 to establish procedures prior to taking statements and reviewing other evidence concerning the incident. All paperwork and evidence associated with the incident have been impounded.

Three tubular sections of the telescoping platform support on the Pad B Rotating Service Structure fell and hit a structural cover that encloses the left-side Orbital Maneuvering System pod of the Shuttle orbiter when a vehicle is on the pad. The tubes, which weigh about 1,000 pounds each, and the sheet metal cover fell to the pad surface and will have to be replaced.

The telescoping rectangular tubes are about 20-25 feet long. They are part of a telescoping mechanism that extends from the ceiling of the Payload Changeout Room to provide vertical access to the orbiter's payload bay when it is on the pad.

- more -

Pad B has not been used operationally since the Apollo Soyuz Test Project - a joint project with the Soviet Union - in July, 1975.

It is nearing completion of modifications to support Space Shuttle launches with an operational readiness date scheduled for Dec. 1, 1985.

NASA is establishing a recovery plan that will permit the planned operational date to be met.

NASA does not expect to have any additional information regarding this incident until the mishap investigation board has concluded its investigation and reported its findings.

All Space Shuttle launches to date have been conducted from Complex 39's Pad A. The first scheduled launch from Pad B is that of the 51-L mission aboard Challenger on Jan. 22, 1986.

# # # # #

Sept. 19, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF-6
Pub

For Release:

Andrea Shea-King
(305) 867-2468

IMMEDIATE

KSC RELEASE NO. 196-85

PATENT AWARD WINNERS TO LEARN ABOUT SPACE STATION

KENNEDY SPACE CENTER, Fla. -- NASA's next logical step -- Space Station -- will be the topic of a presentation to be given on October 19, when NASA spokesman James Johnson addresses the Westinghouse Electric Corp. Patent Awards Banquet gatherers.

The talk will be given at 7 p.m. at the Radisson Plaza Hotel in Orlando, Florida.

Mr. Johnson is deputy manager in the Space Station and Advanced Projects office for NASA at Kennedy Space Center. He is responsible for Space Station planning, future projects development and research and technology activities at KSC.

The media is invited to cover this event, and should contact Bill Smith at (305) 281-2434 for further details.

Sept. 23, 1985

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IF.6

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Andrea Shea-King
(305) 867-2468

IMMEDIATE

KSC RELEASE NO. 195-85

TELECOMMUNICATIONS GROUP TO LEARN ABOUT SPACE PROGRAM ADVANCES

KENNEDY SPACE CENTER, Fla. -- Telecommunications in NASA's Space Shuttle Program and related activities at Kennedy Space Center will be the topic of a presentation to be given on Oct. 7, when NASA spokesman Gene Rocque addresses the National Association of State Telecommunications Directors.

The talk will be given at 8 a.m. at the Wyndham Seaworld Hotel's Wedgewood Ballroom, in Orlando, Florida.

Planning future Space Shuttle launches is Rocque's responsibility in his job with the Mission Planning Office in the Launch and Landing Operations Directorate at Kennedy Space Center.

Media representatives are invited to cover this event, and should contact Donald Allen at (904) 488-3595 for further details.

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Sept. 23, 1985

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.6
#22

For Release:

Andrea Shea-King
(305) 867-2468

IMMEDIATE

KSC RELEASE NO. 205-85

WW ONE BOMB SQUADRON VETS TO HEAR FUTURE PLANS OF SPACE PROGRAM

KENNEDY SPACE CENTER, Fla. — One of the oldest bombing squadrons in Air Force history will gather at the Cocoa Beach Holiday Inn Oct. 5 at 8 p.m. for its annual reunion.

Founded in 1917, the 13th Bomb Squadron flew in World War 1, flying DH-4's and SPADS, vintage military aircraft. Some of its 100 members fought in the South Pacific during World War 2, while others flew B-26 aircraft during the Korean War.

Featured guest speaker for the occasion will be NASA spokesman Gene Rocque who will detail the future of spaceflight and space program fiction.

Planning future Space Shuttle launches is Rocque's responsibility in his job with the Mission Planning Office at Kennedy Space Center. Rocque has worked for NASA since 1968.

Sept. 26, 1985

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NOTE TO EDITORS: The media is invited to cover this event, and should contact Charles Hinton at (305) 783-8941 for further details.

M. Konjevich
SI
SI-SRV-1

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

IF.6

For Release:

IMMEDIATE

Andrea Shea-King
(305) 867-2469

KSC DIRECTOR TO SPEAK AT BCC ANNIVERSARY CELEBRATION

KENNEDY SPACE CENTER, Fla. - On Sunday, Sept. 29, Brevard Community College will celebrate its 25th anniversary with a kick-off event commemorating the college's founders.

Founders' Day festivities will begin at 3 p.m. in the Fine Arts Auditorium, Cocoa campus, with remarks by BCC president Dr. Maxwell King. Kennedy Space Center Director Dick Smith will appear at the podium to add his congratulations to the fine record of achievements accomplished by Brevard Community College during its first quarter century.

A videotape highlighting the early years and progress made since will be featured during the ceremony. A Silver Anniversary Reception is planned in the Student Center after the ceremony.

The event is open to the public.

Sept. 26, 1985

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
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AC 305 867-2468

IF-6

Andrea Shea-King
(305) 867-2468

IMMEDIATE For Release:

KSC RELEASE NO. 208-85

FROM BUCK ROGERS TO SPACE STATION: FICTION BECOMES REALITY

KENNEDY SPACE CENTER, Fla. — George Orwell predicted wondrous events for the future. Buck Rogers lived futuristic fantasies in a popular comic strip. Today we are realizing many of the dreams that flowed from the pens of past science fiction writers.

Science fiction buffs at Florida Institute of Technology will discover just how closely some of that science fiction has become reality when NASA spokesman Joe Green addresses the Society of Science Fiction at FIT on Oct. 1. The presentation will be given at 8 p.m. at FIT's Gleason Hall in Melbourne, Florida. The general theme of his talk will center on science fiction forecasts made prior to Sputnik, and how those predictions compare with today's achievements.

Green is a writer working with the Education and Awareness Branch of Public Affairs at Kennedy Space Center. Some of his works include "Conscience Interplanetary", "The Mind Behind The Eye", "Starprobe", and "The Bugs That Live At -420 Degrees".

Sept. 26, 1985

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NOTE TO EDITORS: The media is invited to cover this event. Those interested should contact Edward Morgan at (305) 768-8589 for further details. The event is open to the public.

IF.6 #2

NASA News

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For Release:

Andrea Shea-King
(305) 867-2468

IMMEDIATE

KSC RELEASE NO. 206-85

BARTOW LIONS CLUB TO REVIEW SPACE SHUTTLE PROGRAM

KENNEDY SPACE CENTER, Fla. -- The Bartow Lions Club has traditionally concerned itself with sight, performing fund raising activities intended to obtain money for the treatment of children with optical problems. On Oct. 22, this dedicated group will be involved once again with vision --- the vision of the future.

During the group's weekly noon luncheon meeting, the Lions Club will see the Space Shuttle Program through the eyes of NASA spokesman Dick Young. NASA's Space program and related activities at Kennedy Space Center will be the topic of a presentation to be given at the Bartow Civic Center in Bartow at 12 noon.

Young is Public Affairs News Chief at Kennedy Space Center. He is responsible for providing the media with timely information regarding NASA activities.

Sept. 26, 1985

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NOTE TO EDITORS: The media is invited to cover this event, and should contact William Renfroe at (813) 533-1195 for further details.

IF 6
#22

NASA News

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For Release:

Deborah Marth
(305) 867-2468

Immediate

KSC RELEASE NO. 203-85

McKENZIE HIGH SCHOOL GRADUATE HONORED FOR ROLE IN SPACE SHUTTLE PROGRAM

KENNEDY SPACE CENTER, Fla. -- James Devault, son of Mary Ruth Devault of McKenzie, Tenn., and a 1960 graduate of McKenzie High School, has been chosen as the September Employee of the Month for his role in supporting the Space Shuttle Program.

Devault, who was born in Milan, Tenn., attended the Tennessee Technological University, Cookeville, Tenn. He joined NASA in 1968 as a Communications Systems Engineer.

Devault was chosen as Employee of the Month for Shuttle Management and Operations based on his significant contributions to the success of Shuttle landings at Edwards AFB, Calif. He was also recogonized for the assistance he provided at Vandenburg AFB, Calif., during the development of Vandenburg's Shuttle launch facilities.

Devault's work involves being responsible for radio communications systems at KSC and all ground communications systems at Shuttle landing sites including Edwards AFB and overseas contingency landing sites.

Kennedy Space Center is the primary launch and landing site for the Space Shuttle. Vandenberg Air Force Base will become the second launch facility for the Space Shuttle in early 1986. VAFB will be used primarily to launch payloads into polar orbit.

# # #

September 26, 1985

NASA News

National Aeronautics and
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John F. Kennedy Space Center
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AC 305 867-2468

IF-6

Andrea Shea-King
(305) 867-2468

IMMEDIATE For Release:

KSC RELEASE NO. 210-85

SPACE COMMERCIALIZATION TO BE DISCUSSED AT CONSTRUCTION CONVENTION

KENNEDY SPACE CENTER, Fla. — NASA's plans to enhance the commercial returns from the space program will be the topic of a presentation to be delivered to the North and South Carolina Associated General Contractors of America on Nov. 11.

Making the presentation will be NASA spokesman Don Capone, deputy payload projects manager at Kennedy Space Center. Capone is responsible for the program management of Space Transportation System payload projects including Spacelab, upper stages, and deployable satellites.

The talk will take place at the 65th annual convention of the Carolinas Branch of AGC at The Breakers, in Palm Beach, Fla. at 10 a.m.

The AGC is a trade association representing the construction industry in both North and South Carolina. Membership is comprised of approximately 650 general contractor firms, and 2,500 subcontractors, material suppliers, and insurance and bonding firms. The 1985 Annual Convention is being held Nov. 10 thru 13.

Oct. 1, 1985

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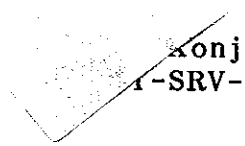
NOTE TO EDITORS: The media is invited to cover this event. Those interested should contact Gene Ellis or Mary King at (704) 372-1450 for further details.


Konjevich
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NASA News

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AC 305 867-2468

For Release:

Immediate

Dick Young
Area Code 305/867-2468

KSC Release No. 211-85

ENTERPRISE NOW ON DISPLAY AT FLORIDA SPACEPORT

KENNEDY SPACE CENTER, Fla. - All five Space Shuttle orbiters are now at NASA's sprawling Florida Spaceport and one of them - the Enterprise - is on public display adjacent to the huge building in which shuttles are assembled for movement to the launch pad.

The temporary juxtaposition of the four space-qualified orbiters and the prototype used in atmospheric flight tests is a once-in-a-program event. It is unlikely that the general public will ever have a better opportunity to view one of the giant machines which are making space flight a routine venture.

The Enterprise, the prototype used for atmospheric flight tests and for Florida and California launch facility fit checks, arrived from California aboard the 747 Shuttle Carrier Aircraft in late September. It will eventually be moved to the Washington, D. C. area and turned over to the Smithsonian Institution.

Its public display as part of the guided bus tours, operated from KSC's SPACEPORT USA, is due to a way-stop of unknown duration.

The delta-winged orbiter is a combination of rocket, spacecraft and aircraft about the size of DC-9. Enterprise is parked adjacent to a permanently displayed full-scale version of the 363-foot-tall Saturn V/Apollo which carried Americans to the Moon in the late 1960s and and early 1970s. Both may be viewed from a tour bus stop in the shadow of the 52-story-tall Vehicle Assembly Building.

Atlantis, launched Oct. 3 on its first mission, and veterans Columbia and Challenger, will be flown out of KSC for the foreseeable future on equatorial missions. Discovery will be moved to Vandenberg AFB, Calif., late this year for polar missions to be launched from the new West Coast Air Force Shuttle facilities beginning in March, 1986.

- more -

When operational conditions permit, the guided bus tours may include a view of a shuttle vehicle on a launch pad being prepared for flight.

The KSC launch schedule for the balance of 1985 includes the launch of Challenger on Oct. 30, Atlantis on its second mission on Nov. 27 and Columbia on Dec. 20.

SPACEPORT USA, located on the NASA Causeway accessible via U. S. Route 1 two miles south of Titusville or Florida Route 3 on Merritt Island, is Florida's fourth largest tourist destination. Open every day of the year with the exception of Christmas, it is visited by approximately two million visitors annually.

The visitors complex, nestled in a setting of orange groves and full-scale rocket displays, offers a comprehensive selection of imaginative space and aeronautics exhibits. There is no charge for admission.

Nominal fees are charged for the two-hour guided bus tours and admission to "The Dream Is Alive", a large-format movie on the Space Shuttle program which is shown on a five-story-tall, 70-foot-wide screen.

# # # # #

PHOTO CAPTION

KENNEDY SPACE CENTER, Fla. - The Space Shuttle Orbiter Atlantis soared upward on its first mission from Pad A at Launch Complex 39 on Oct. 3. In the foreground are the Space Shuttle Orbiter Enterprise and a permanently-displayed Saturn V/Apollo which placed Americans on the Moon in the late 1960s and early 1970s. Enterprise will be on public display at the Spaceport until its transfer to the Smithsonian Institution in Washington, D. C. at some future date. The Enterprise and Saturn V/Apollo may be viewed as part of the guided bus tours of the 220-square-mile NASA reservation.

# # # # #

M. Konjevich
SI-SRV-1

Oct. 4, 1985

IF 6 ✓ #22

NASA News

National Aeronautics and
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John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Jim Ball
(Phone: 305/867-2468)

IMMEDIATE

KSC Release No. 214-85

SPACE STATION PROGRAM EARMARKS $3.2 MILLION FOR KSC PLANNING

KENNEDY SPACE CENTER, Fla. -- NASA has earmarked about $3.2 million for the coming year to continue KSC work to define Space Station processing requirements, evaluate maintenance and resupply activities, and assess facility needs.

The FY 1986 funding will pay for contracted and in-house studies to support and complement the agency-wide Space Station Phase B definition and preliminary design effort that's expected to continue through early 1987.

Studies are being conducted at KSC to identify the ground processing options and concepts associated with preparing Space Station elements for launch. In addition, KSC contractors are evaluating facility requirements for processing the station elements and payloads.

Also underway are studies to help determine how NASA will approach the on-going maintenance and resupply activities needed to support continuous on-orbit operations.

The FY 1986 funding of KSC Space Station activity represents an increase over the $2.85 million level in FY 1985 and reflects the program's progress towards selection of a Space Station configuration and operations concepts.

The activity at KSC is supporting Space Station planning at the Phase B design centers -- Johnson Space Center, Marshall Space Flight Center, Lewis Research Center, and the Goddard Space Flight Center -- as well as the program level offices.

KSC's Space Station planning activities are managed by the Space Station Project Office, headed by C.M. Giesler.

- more -

October 11, 1985

The office is organized into four areas: Systems Engineering and Integration, Operations and Customer Support, Logistics System, and Project Control.

Space Station support is provided by various KSC directorates, principally Cargo Management and Engineering Development.

Overall, KSC Space Station activity planned for the coming fiscal year will require the equivalent of about 180 NASA and contractor workers.

NASA's planning milestones call for completion of the current definition and preliminary design activities in January 1987. The Space Station development phase will follow with the first Space Station element launch coming in the early 1990s.

The Space Station reference configuration envisions a multi-functional facility of pressurized modules clustered on a long truss structure. Power for the station is provided by solar arrays mounted to the truss structure.

Initial habitation facilities for six to eight crewmembers will enable the station to be permanently inhabited.

Located in low earth orbit at an altitude of around 287 statute miles, the Space Station is expected to serve as an observatory, a research and development lab, a manufacturing and assembly facility, and as a storage depot and transportation node.

The Space Station program also envisions use of free-flying unmanned platforms, including at least one in polar orbit, and an orbital manuevering vehicle that will act as a space tug.

# # #

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NASA News

National Aeronautics and
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John F. Kennedy Space Center
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AC 305 867-2468

For Release

Jim Ball
(Phone: 305/867-2468)

IMMEDIATE

KSC Release No. 215-85

HIGH-TECH SPACESUIT HELMET AMONG STATION MAINTENANCE CONCEPTS

KENNEDY SPACE CENTER, Fla. -- NASA's Space Station astronauts may be equipped with an electronically-enhanced spacesuit helmet fit for a Jedi Knight.

Computer-generated visual displays and voice instructions could replace the printed shop manual when Space Station crewmembers embark on a maintenance job, according to the findings of a KSC-contracted study.

Already developed high-technology hardware may form the basis for a computer-based technical documentation system that could deliver see-through graphic displays and voice-interactive instructions to the helmet of a spacewalking astronaut.

Consideration of such "how-to-fix-it" aids has been recommended to NASA by Boeing Aerospace Company, which is conducting a Space Station Maintenance Planning and Analysis Study at Kennedy Space Center.

VIMAD, standing for Voice Interactive Maintenance Aiding Device, is a technology that provides visual and audio outputs upon voice request by the user.

It may sound like a device for Luke Skywalker's X-fighter, but VIMAD is already being prototype tested in some operations.

VIMAD is just one of a variety of data handling concepts that will be generated by the Boeing study to help NASA assess how to best approach the challenging task of on-going maintenance of the Space Station.

- more -

October 11, 1985

The amount of technical reference material that will be required to enable Space Station astronauts to perform routine maintenance and repair activities is equivalent to about 30,000 printed pages, study managers say.

That's enough to fill five, four-drawer file cabinets and represents about four tons of weight.

The logistics of managing all that paper on orbit is enough to convince Space Station planners to explore more efficient systems.

Analysis of the technical information requirements is just one task in Boeing's study assignment to provide an overall evaluation of in-flight and ground maintenance processes.

KSC's effort in the area of maintenance planning is complementary to the broader, agency-wide activities that will lead to preliminary design for the Space Station.

Because the Space Station is conceived as a continuously habitable facility, designed for growth in both size and functional capability, the requirement for "maintainability" is a key consideration in its architecture.

The Boeing Space Station Maintenance Planning and Analysis study is being performed under a one-year $260,000 fixed price contract that includes options for two one-year extensions.

Kennedy Space Center is conducting studies in Space Station ground processing, facilities requirements, and logistics support to complement and support current Phase B study activities at the NASA design centers.

KSC has been assigned responsibility for preflight and launch operations and will be involved in Space Station resupply and other logistics activities.

# # #

M. Konjevich
SI-SRV-1

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NASA News

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For Release:
IMMEDIATE

Lisa Malone
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KSC RELEASE NO. 222-85

LIFE SIZE MODEL OF X-29 AIRCRAFT TO BE DISPLAYED AT KSC's SPACEPORT USA

KENNEDY SPACE CENTER, Fla. — An exact replica of the unconventional X-29 test aircraft with forward swept wings will be on display at KSC's Spaceport USA for one week beginning Oct. 29.

Spaceport visitors can enjoy a close-up view of the sleek mock aircraft at no cost, which was originally built for display at the Paris Air Show. It has been on display at Grumman plants around the country, and will be making a pit stop at KSC.

Since its first flight in December 1984, the X-29 has completed 19 test flights and reached a speed of .75 Mach at NASA's Ames-Dryden Flight Research Facility, Edwards, Calif. Plans are to reach supersonic speeds by next year.

The forward swept wings span 27 ft. and the overall length of the aircraft is 48 ft. It stands 14 ft. tall and weighs 13,600 pounds without fuel.

The demonstrator vehicle was built by Grumman Corporation under a contract with the U.S. Air Force with the Defense Advanced Research Projects Agency providing the funding. NASA Ames-Dryden is responsible for the flight research in testing the forward swept wing technology.

The X-29's innovative wings offer higher maneuverability with virtually spin-proof characteristics; improved slow-speed handling; and lower stall speeds compared to conventional aft swept wings.

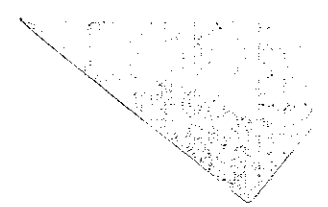
Advantages of the forward swept wing theory were recognized as early as World War II. However, the structural beefup required of metal wings resulted in additional weight. Recently a strong and lightweight graphite composite material has offered a solution.

Spaceport USA is Kennedy Space Center's visitor's center and offers tours of the Center and of the Cape Canaveral Air Force Station, a comprehensive collection of rockets and spacecraft, exciting exhibits, a souvenir store, and the spectacular IMAX film, "The Dream is Alive," featuring on-orbit footage of Space Shuttle missions.

# # # # #

October 23, 1985

M. Konjevich
SI-SRV-1



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For Release:
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Dick Young
Area Code 305/867-2468

KSC Release No. 225-48

REVIEW BOARD SUBMITS REPORT ON SEPT. 18 PAD ACCIDENT

KENNEDY SPACE CENTER, Fla. - A NASA Mishap Investigation Board has completed its review of the Sept. 18 accident involving the payload bay access equipment at Space Shuttle launch Pad B at the Kennedy Space Center and submitted its final report to KSC Director Richard G. Smith.

The accident occurred when three sections of a telescoping tube assembly located on the Rotating Service Structure (RSS) at Launch Complex 39's Pad B fell while undergoing extension to incorporate a planned modification.

The telescoping platform support system is used to provide access for technicians to various areas of the cargo bay of a Space Shuttle orbiter while it is on the pad. Binding of the telescoping sections was experienced during extension and retraction tests and replacement of bronze bushing with roller bearings was about to be done when the accident occurred.

The falling tubes struck an Orbital Maneuvering System pod cover on the Rotating Service Structure (RSS), knocking it to the pad surface and doing additional minor damage to the RSS as they fell.

Initially, the total damage was estimated at $345,000. This includes $244,000 damage for the OMS pod cover and the remainder for damage to the telescoping tubes and other miscellaneous damage. There were no injuries and there will be no delay in the operational readiness of the launch pad.

Programmatic decisions were made following the accident that (1) the OMS pod covers are no longer required because the total Thermal Protection System modification on shuttle orbiter OMS pods will be completed prior to Pad B usage, and (2) the Access Platform for Pad B will be reconfigured similar to the operational Pad A system.

As a result of these decisions, the effort to recover from this mishap involves only repairing the miscellaneous damage to the Pad B Payload Changeout Room and reconfiguring the Access Platform so that it functions in a similar manner to the one on Pad A, which has no telescoping tube.

The actual recovery cost is estimated to be $90,000.

Pad B, the second of two Space Shuttle launch pads at Complex 39, is to be certified ready for operational use in mid-December. The first launch scheduled for Pad B will be that of the 51-L mission, scheduled for Jan. 22, 1986. It will mark the first operational use of the pad since the launch of the Apollo Soyuz Test Project in July, 1975.

The telescoping tube assembly consists of a large fixed steel tube measuring 18 inches by 14 inches by 20 feet long which was welded to the structure of the RSS. The four movable tubes vary in decreasing cross-section size to a 10 inch by six inch tube on which the hoist is attached.

These are noted as tubes A,B,C and D. Tube A is the largest; Tube D is the smallest and the one attached to the cable hoist. (See Figures 9-B-1, 9-B-2 and 9-B-3 from attached Pages 44, 45 and 46 of the board's final report.)

Tube D, the innermost tube, is the only tube which is attached directly to the cable lifting mechanism, and in turn is attached to the platforms. The other tubes are free floating and kept in place by bushings and steel blocks, called keepers, and stop plates which prevent them from sliding out of the adjacent tubes. The weights of tubes A, B and C are supported by the stop plates on the fixed steel tube attached to the RSS structure when the entire system is extended. As tube D, which contains the attachment mechanism, is lifted then the weight of each tube is transferred, in turn, to a plate on Tube D.

In its report, the board found:

"The immediate cause of telescoping tubes A, B and C falling was that the lifting surfaces were not maintained between the lifting plates on Tube D and the keepers on Tube C. This was the result of the bowing of Tube C and wearing and bending of its keepers...

"The keepers on the fixed tube failed under the dynamic loads caused by the striking of the Tube A stops when Tubes A, B and C fell..."

The board recommended that "Future designs calling for lifting devices with telescoping tubes must be halted until an acceptable design is provided and sufficient testing is completed to ensure the satisfactory performance of telescoping tube assemblies."

The board also found that "The design process for the tube assembly was deficient." As a remedy, it recommended: "The design process must be analyzed to ensure that the proper design disciplines have reviewed the requirements of design and functionality. Also, that they have participated in the design reviews and concurred in the processes of fabrication, inspection and documentation."

All necessary actions to recover from the mishap are underway. None will affect the operational ready date for Pad B.

Soon after the accident, a letter of warning was distributed to managers within KSC and at the Vandenberg Air Force Base, Calif., launch site restating the importance of taking extra care while using all lifting devices using tubes.

The board was chaired by T. D. Greenfield, chief, Networks Engineering Division, Electronic Engineering Directorate. Members included James L. Joyner, Center Support Operations Directorate, and Emmitt A. Reynolds, Shuttle Engineering Directorate. Safety advisor and recorder was Jay Wortman of the KSC Safety Office. The legal advisor was Douglas G. Hendriksen of the Chief Counsel's Office.

# # # # #

Nov. 1, 1985

Attachments:

Copies of line drawings from Pages 44, 45 and 46 of accident report.

Note: A copy of the board's complete report is available for review in the KSC News Room.

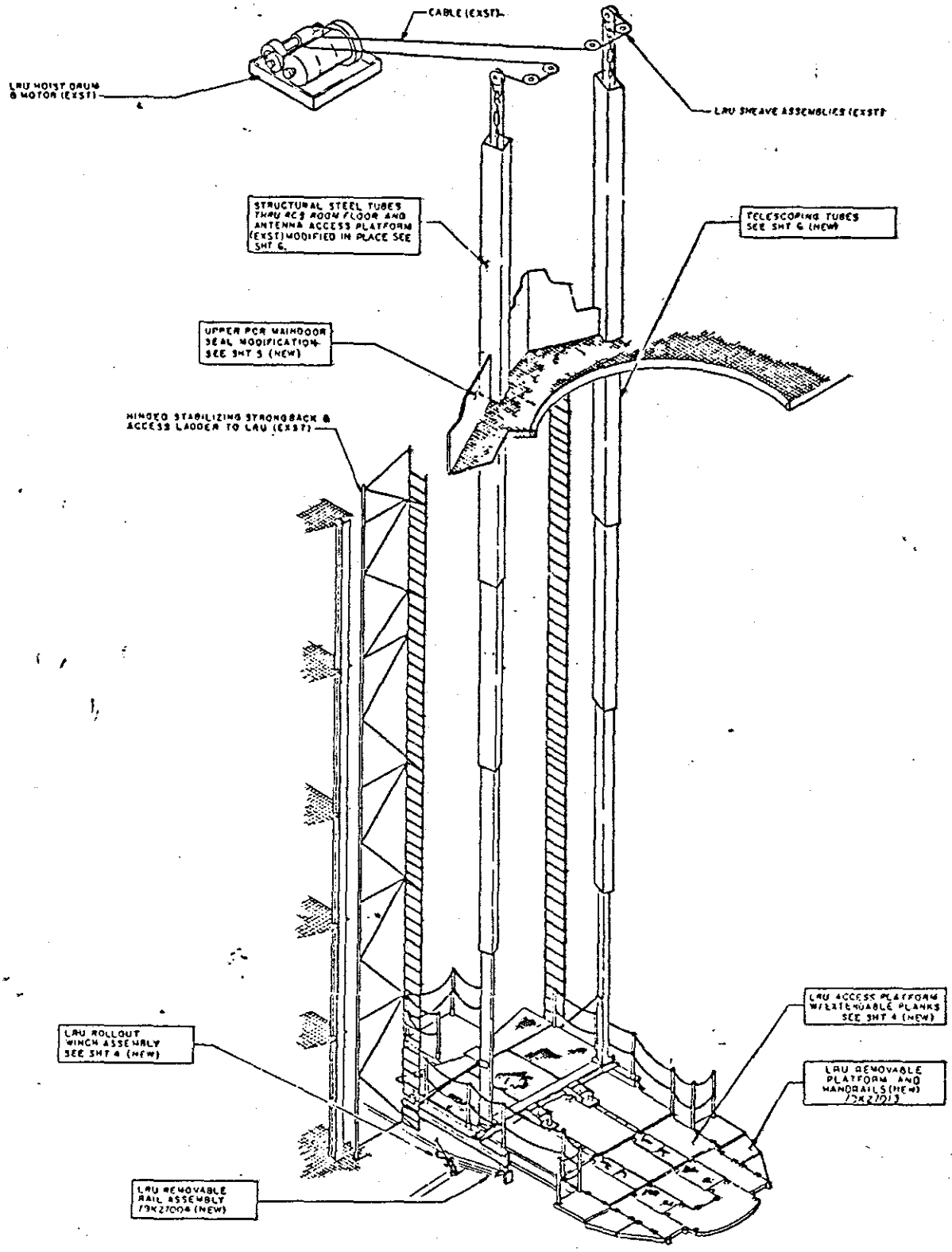

FIGURE 9-B-1. SKETCH OF LRU ACCESS PLATFORM AND TUBE ASSEMBLY ISOMETRIC

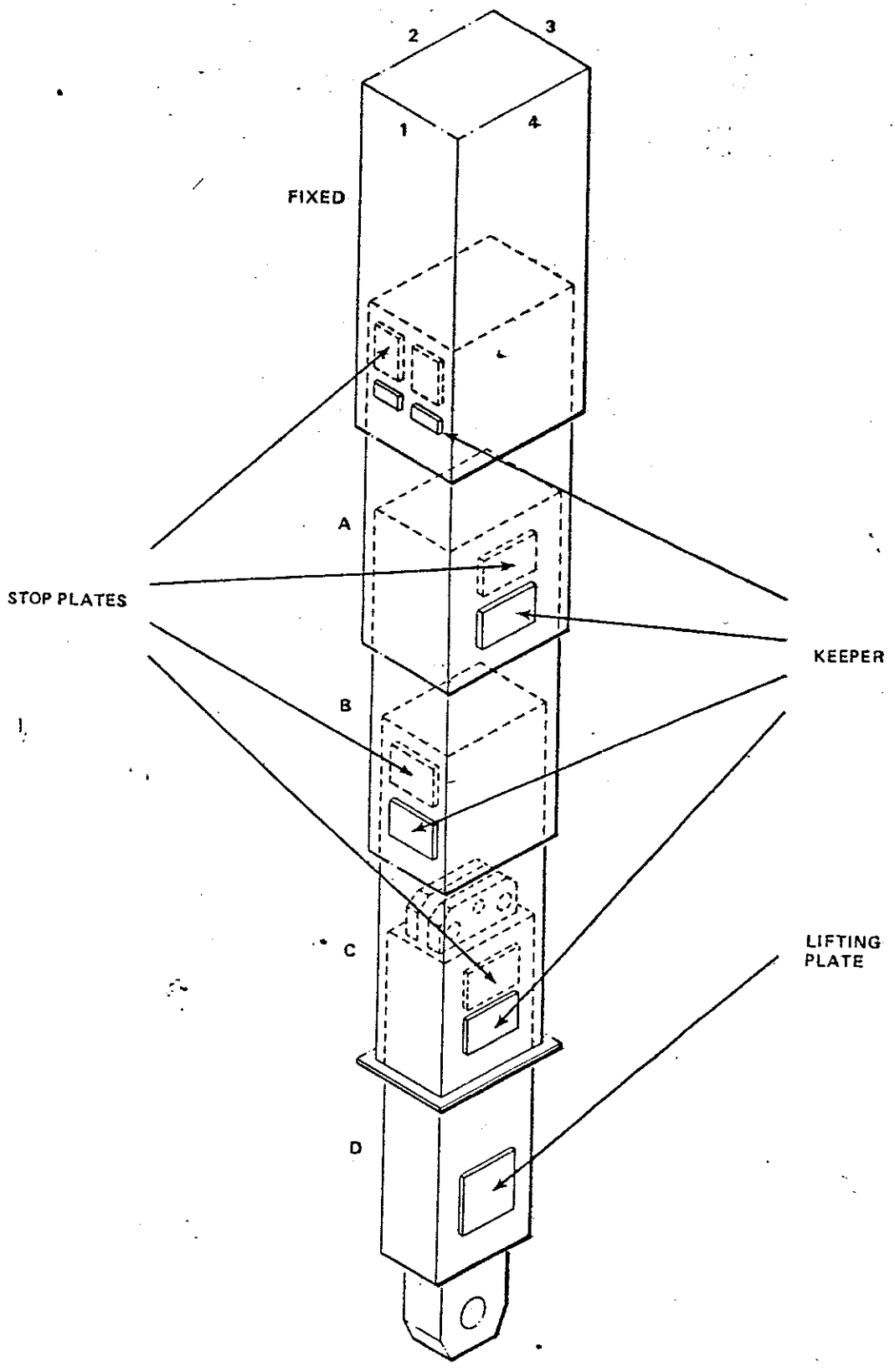

FIGURE 9-B-2. TELESCOPING ASSEMBLY FUNCTIONAL ISOMETRIC ILLUSTRATION

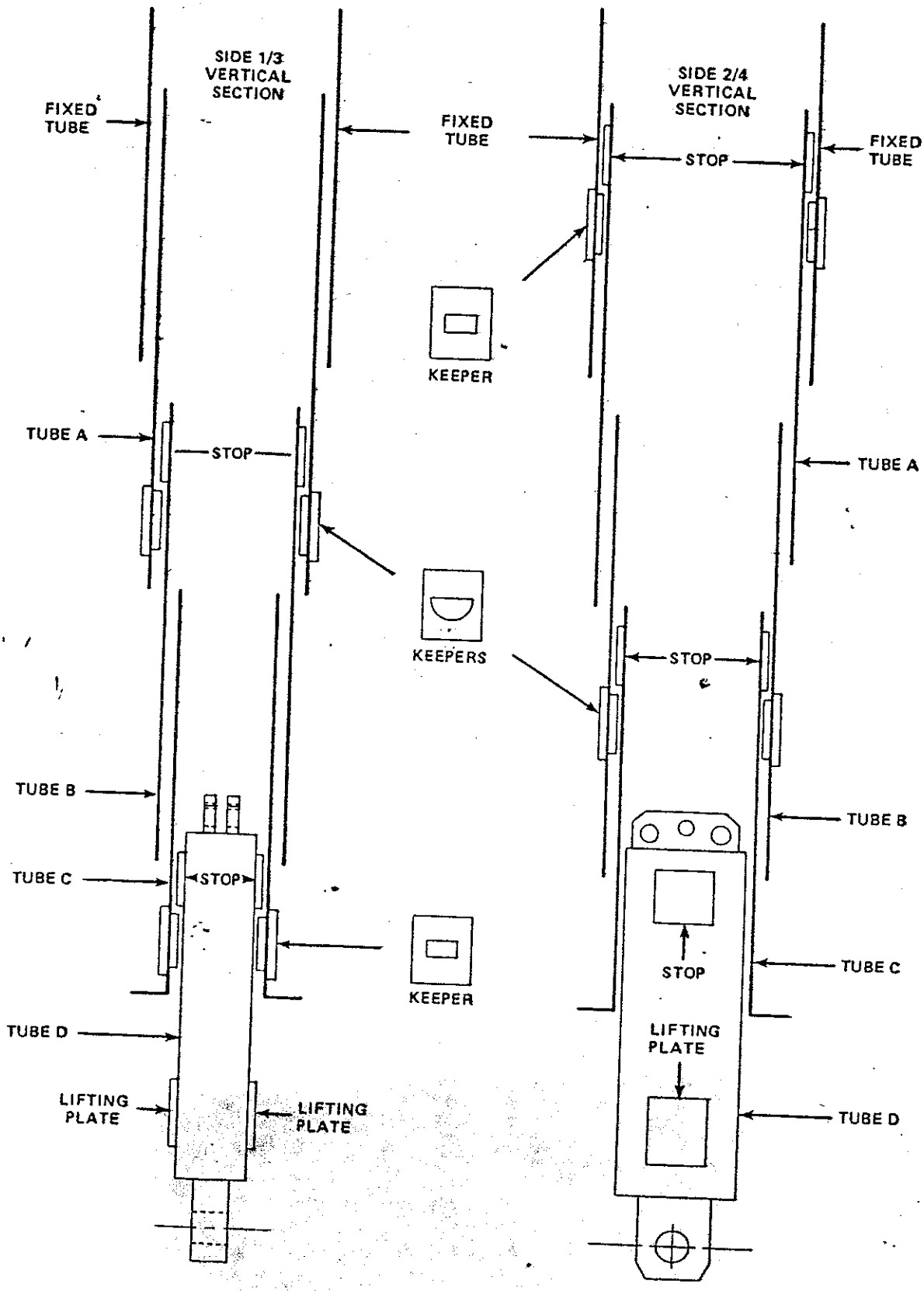

FIGURE 9-B-3. TUBE ASSEMBLY SECTIONS

M. Konjevich
SI-SRV-1

NASA News

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John F. Kennedy Space Center
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For Release:
Immediate

Deborah Marth
Area Code 305/867-2468

KSC RELEASE NO: 230-85

WATERWAY BRIDGE OPENINGS TO BE CONTROLLED ON 61-B LAUNCH DAY

KENNEDY SPACE CENTER, Fla.-- The opening and closing of bridges over waterways surrounding the Kennedy Space Center will be strictly controlled during the hours immediately before and after the launch of the Space Shuttle Atlantis on its second mission.

The launch is scheduled for Nov. 26, but the restrictions will apply on subsequent launch dates should a delay be encountered. Atlantis is scheduled to liftoff at 7:29 p.m. EST.

The U.S. Coast Guard's Seventh District in Miami has given KSC authority to restrict the operation of the bridges from three hours before launch, if needed, until three hours after liftoff to facilitate the flow of vehicular traffic in and out of the space center.

Beginning at T-3 hours, bridges will be opened for five minutes every half-hour. They will remain closed from T-60 minutes until T plus 90 minutes. Beginning at T plus 90 minutes, they will be opened for five minutes every half hour until T plus three hours, at which time normal opening procedures will be resumed.

Bridges to be affected by these regulations include:

* - The Canaveral Harbor/Barge Canal Bridges at State Road 3 on Merritt Island, and State Road 401 at Port Canaveral.

* - The Intercoastal Waterway bridges over the Indian River at Addison Point (NASA Causeway).

* - The Banana River Bridge between KSC and Cape Canaveral Air Force Station (NASA Causeway East).

The bridge over Haulover Canal, which links the Indian River with Mosquito Lagoon, will be oriented in an open position at 5 p.m. on T-1 day to halt vehicular traffic, but will be lowered to its normal position shortly after launch.

# # #

Nov. 7, 1985

NASA News

National Aeronautics and
Space Administration

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IF.6 ✓ #22

For Release:

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(305) 867 2468

Immediate

KSC RELEASE NO. 232-85

NASA'S SPACEPORT USA AND ENTERPRISE CONTINUE TO DRAW TOURISTS

KENNEDY SPACE CENTER, Fla. -- NASA's **SPACEPORT USA** and the Space Shuttle orbiter Enterprise continue to be a big draw for visitors to the central Florida area. KSC visitors will have until Nov. 11 to see the Enterprise before its departure from the Spacecoast area.

The Enterprise is on public display adjacent to the 363-foot-tall Saturn V/Apollo similar to the one which carried Americans to the Moon in the late 1960's and early 1970's. Both may be viewed from a tour bus stop in the shadow of the 52-story-tall Vehicle Assembly Building.

The Enterprise arrived from California aboard the 747 Shuttle Carrier Aircraft in late September. It will be moved to the Washington D.C. area on Nov. 16 and turned over to the Smithsonian Institution.

Arnold Richmond, Chief of KSC's Visitors Services Branch, said, "We are very pleased with the number of guests we are able to attract. The public certainly has enjoyed seeing the Enterprise on display and we were quite happy to have it here, even if for a short time."

SPACEPORT USA, located on the NASA causeway and accessible via U.S. Route 1 two miles south of Titusville or Florida Route 3 on Merritt Island, is Florida's fourth largest tourist destination. Open every day of the year with the exception of Christmas, it is visited by approximately two million visitors annually.

Attendance figures for the month of October show that nearly 81,334 people took the nominally priced two-hour guided bus tour of the nation's Space Center, a slight increase over 1984's October attendance. TWS Services, Inc., the prime contractor for **SPACEPORT USA,** estimates that since it premier, over 244,086 visitors have also viewed "The Dream Is Alive," a large-format movie on the Space Shuttle program which is shown on a five-story-tall, 70-foot-wide screen.

The visitors complex, nestled in a setting of orange groves and full-scale rocket displays, offers a comprehensive selection of imaginative space and aeronautics exhibits. There is no charge for admission.

# # #

Nov. 8, 1985

M. Konjevich
SI-SRV-1

IF 6
#11

NASA News

National Aeronautics and
Space Administration

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For Release:

IMMEDIATE

Jim Ball
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KSC Release No. 239-85

NOTICE TO EDITORS/NEWS DIRECTORS

SHUTTLE LOGISTICS FACILITY TO BE DEDICATED DECEMBER 3

A new, state-of-the-art logistics support facility constructed at KSC's Launch Complex 39 will be formally dedicated at 10 a.m. Tuesday.

KSC Director Richard Smith, Lockheed Space Operations Company President E. Douglas Sargent, and Dulcie Burns, a special staff assistant and NASA liason for U.S. Rep. Bill Nelson, will take part in a ribbon-cutting ceremony.

The new 324,640 square foot building houses flight hardware spares and a variety of support equipment as well as office space for approximately 550 NASA and Lockheed employees. It consolidates into one facility logistics functions supporting Space Shuttle launch processing and turnaround activities performed by Lockheed Space Operations Company.

News media representatives are invited to attend the dedication ceremony and tour the new facility, which includes state-of-the-art automated storage and retrieval systems.

Interested press representatives should be at the Complex 39 Press Site by 9:15 a.m. Permanently badged media and those with Mission 61-B credentials may proceed directly to the Press Site. Others should call 867-2468 ahead of time and arrange for clearance.

# # #

November 27, 1985

KSC FORM 2-160A (3/80)

M. Konjevich
SI-SRV-1

IF.6
#22 V

NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

For Release:

Dick Young
Area Code 305/867-2468

Immediate

KSC Release No. 242-85

NOTICE TO EDITORS/NEWS DIRECTORS

DEDICATION OF SECOND SHUTTLE LAUNCH PAD SCHEDULED FOR DEC. 13

KENNEDY SPACE CENTER, Fla. - Complex 39's Pad B - last used for the launch of a Saturn IB/Apollo for a joint mission by the United States and Soviet Union in July 1975 - will be dedicated for its role in the Space Shuttle program at 9 a.m. on Friday, Dec. 13.

Pad B, the second of the two Complex 39 launch pads to undergo modification from the Apollo configuration, will be used for the launch of Space Shuttle mission 51-L, scheduled for Jan. 22, 1986. Launches of the 23 Space Shuttle missions flown since Shuttle flights began on April 12, 1981 have been conducted from Pad A.

Following the dedication ceremony, the group will go to Spaceport USA to view a showing of the large-screen IMAX movie "The Dream Is Alive." A reception will be held in the Galaxy Center at Spaceport USA from 10:45 a.m. until noon.

Media representatives interested in covering the Pad B dedication ceremony should be at the KSC News Center no later than 8:30 a.m. Transportation to and from Pad B will be provided.

Those who wish to attend only the reception may drive directly to Spaceport USA.

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Dec. 5, 1985

M. Konjevich
SI-SRV-1

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NASA News

National Aeronautics and
Space Administration

John F. Kennedy Space Center
Kennedy Space Center, Florida 32899
AC 305 867-2468

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For Release:
IMMEDIATE

KSC RELEASE No. 233-85

KENNEDY SPACE CENTER CONTRACTS BOOST FLORIDA ECONOMY

KENNEDY SPACE CENTER, Fl. — The impact of NASA's Kennedy Space Center on the economy of Florida is both direct and substantial. Businesses in the Sunshine State benefitted from more than $810 million in ongoing and new NASA government contracts awarded during fiscal year 1985.

According to year-end figures, Kennedy Space Center, NASA's principal launch and payload processing site, awarded $77,595,000 in new contracts and purchases to the Florida business community during FY '85.

Nearly $28 million ($27,905,000) of that went to off-center firms in Brevard County for services and supplies or equipment. Brevard County is the home of Kennedy Space Center.

The remaining $42,179,000 in contracts or direct orders were awarded to firms located elsewhere in the Sunshine State.

The fiscal year runs from Oct. 1 through Sept. 30.

During the 1984 Fiscal Year, KSC on-site contractors were paid $544 million and it is estimated that 90 percent of that amount stayed in the local area in the form of payrolls and purchases.

KSC Civil Service salaries total about $92 million annually. Current figures show that the KSC workforce, including NASA Civil Service, contractors and tenants, totals 16,000.

Recipients of the bulk of current ongoing contracts, those that are funded over a several year period, include Base Operations Contractor EG&G Florida, Inc.; Shuttle Processing Contractor Lockheed Space Operations Co.; and McDonnell Douglas Aeronautics Corp., one of the major contractors providing payload processing services.

The FY '83 contracting level at KSC was $682.4 million. The FY '84 level reached $763 million.

Kennedy Space Center's principal roles involve Space Transportation System (STS) ground operation efforts, which include Space Shuttle checkout, launch, landing and refurbishment and ground processing of Spacelab and other payloads remaining attached to the Shuttle during a mission.

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Dec. 8, 1985

M. Konjevich
SI-SRV-1

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NASA News

National Aeronautics and
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Immediate

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KSC Release No.: 255-85

POST LAUNCH TRAFFIC TO BE REROUTED TO AVOID CONGESTION

KENNEDY SPACE CENTER, Fla. -- KSC traffic patterns are being modified on the launch day for Space Shuttle mission 61-C to minimize post-launch congestion.

Westbound traffic on the NASA Parkway (State Route 405) east of Spaceport USA is now limited to a single lane because of a recent accident involving damage to the State Route 3/State Route 405 overpass. Some vehicles will be rerouted when leaving the center following launch of Columbia on Dec. 18 in order to expedite the flow of traffic.

Campers, recreational vehicles, large trucks, and buses will leave the NASA Parkway area by proceeding northbound on Static Test Road, turning west on Schwartz Road, and eventually turning south on to SR3. Upon reaching the overpass, westbound traffic going toward Spaceport USA and U.S.1 in Titusville may rejoin SR405 by bearing right. Southbound traffic going toward Merritt Island will continue straight ahead on SR3.

Automobiles, light vans, and pickup trucks may leave the launch viewing area by proceeding westbound on the NASA Parkway, but should expect a slowdown at the overpass as westbound traffic merges left into a single lane. Cars bound for Merritt Island will follow normal procedure and bear right, proceeding to the traffic light before turning left on to SR3.

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December 12, 1985

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NASA News

National Aeronautics and
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For Release:

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Immediate

KSC RELEASE NO. 243-85

EBON WINS KSC CONTRACT EXTENSION FOR ENGINEERING SERVICES

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Ebon Research Systems, Titusville, Fla., a contract extension for the continuation of safety and reliability engineering services at KSC.

The cost-plus-award-fee contract is valued at $995,330, bringing the total value of the original contract to $2,560,026. This extension covers the period from Sept. 30, 1985 through Sept. 29, 1986.

Under the terms of the extension, Ebon will continue to provide engineering and support services in the areas of safety, reliability, and quality assurance activities for the Space Transportation System, payload/ground service equipment design and ground processing activities.

Ebon Research Systems is a small business contractor which provides support to KSC's Director, Safety, R&QA, and Protective services.

The Kennedy Space Center is NASA's prime launch and landing site for the Space Transportation System which has completed 23 successful missions.

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Dec. 20, 1985

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NASA News

National Aeronautics and
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For Release:
Immediate

KSC RELEASE NO. 245-85

COMPUTER SCIENCES CORPORATION AWARDED CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Computer Sciences Corporation Applied Technology Division, KSC, Fla., a contract extension for the continuation of communications, telemetry, and instrumentation support services.

The cost-plus-award-fee contract is valued at $4,384,235 bringing the total value of the original contract to $10,033,687. This contract extension covers the period from Oct. 1, 1985 through Sept. 30, 1986.

Under the terms of the contract extension, CSC will provide support in the areas of communcations, measurements, telemetrics, instrumentation of Launch Control Center firing rooms, and reliability and quality assurance programs.

KSC is NASA's prime launch and landing site for the Space Transportation System which has completed 23 successful shuttle missions.

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Dec. 20, 1985

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NASA News

National Aeronautics and
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For Release:
Immediate

KSC RELEASE NO. 247-85

COSTELLO WINS CONTRACT FOR SPACE TELESCOPE TEST SLAB AT KSC

KENNEDY SPACE CENTER, Fla. -- NASA's John F. Kennedy Space Center has awarded Costello Construction, Merritt Island, Fla., a $125,000 contract for the construction of a test slab for the Space Telescope Shipping Container.

Under the terms of the contract, Costello is responsible for constructing a concrete test slab with a series of three-foot deep anchors used to hold the test equipment in place.

The Space Telescope Shipping Container will be proof-loaded to verify the container's structure. The dummy payload will simulate the weight of the actual Hubble Space Telescope to be contained in the shipping canister.

The Hubble Space Telescope is currently scheduled to be carried aboard the Space Shuttle for deployment on a mission scheduled for launch no earlier than Aug. 18, 1986. The Space Telescope will have a launch weight of about 25,500 pounds.

The new cosmic observatory will have an eight-foot diameter mirror and be able to see celestial objects 50 times dimmer than anything now seen. The overall length of the HST will be 43.5 feet and its diameter will be 14 feet.

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Dec. 20, 1985

M. Konjevich
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