KSC news release
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.3 #62

RELEASE NO: KSC-3-69
FOR RELEASE: Immediate

January 8, 1969

ALLIED CHEMICAL GETS NASA CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has awarded a $514,050 contract to Allied Chemical Corporation Specialty Chemicals Division, Morristown, N.J., for the chemical Trichlorotrifluoroethane used in cleaning Apollo and Saturn systems and components at the John F. Kennedy Space Center.

The material is a stock item and is used by various laboratories and contractors at KSC.

KSC launches Apollo/Saturn space vehicles in NASA's effort to land astronauts on the moon and return them safely to earth.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-4-69
FOR RELEASE: Immediate

January 8, 1969

NASA GIVES MARTIN-MARIETTA CONTRACT FOR A STUDY TO REDUCE LAUNCH COSTS

KENNEDY SPACE CENTER, Fla., -- The National Aeronautics and Space Administration has awarded a $198,977.20 contract to Martin-Marietta Corporation Canaveral Operations, Cocoa Beach, Fla., to study ways to cut launch costs at the Kennedy Space Center.

Objective of the study is to develop methods and guidelines to reduce overall costs required to launch future missions using current and advanced spacecraft and Saturn launch vehicles.

KSC is NASA's major launch center for manned and unmanned space missions.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-5-69

FOR RELEASE: Immediate

January 8, 1969

NEW JERSEY FIRM GETS NASA CONTRACT

KENNEDY SPACE CENTER, Fla., -- Quindar Electronics, Inc., of Springfield, N.J., has received a National Aeronautics and Space Administration contract for equipment to be used in expansion of a Hazards Monitoring System (HMS) at John F. Kennedy Space Center.

The contract calls for two 40-channel transmitter sets and ten 40-channel receiver sets for expansion of the partially-installed HMS at Pad B, Launch Complex 39.

The equipment is used in monitoring alarm signals transmitted from the propellant storage area and feed lines to the Apollo/Saturn space vehicle during launch operations.

KSC launches Apollo/Saturn space vehicles in NASA's effort to land men on the moon.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-6-69

FOR RELEASE: Immediate

January 8, 1969

APOLLO 9 LAUNCH SET FOR FEBRUARY 28

The Apollo 9 flight, scheduled by the National Aeronautics and Space Administration for launching February 28, will evaluate spacecraft lunar module systems performance during manned Earth orbital flight.

Apollo 9 is planned for liftoff at 11:00 a.m. EST from the NASA Kennedy Space Center Launch Complex 39A. James McDivitt is spacecraft commander, David Scott is command module pilot, and Russell Schweickart is lunar module pilot.

Following insertion into a 109-by-112 nautical mile Earth orbit, the crew will perform a simulated translunar insertion. This will be followed by command service module separation, transposition, and docking with the lunar module, still attached to the rocket's third stage.

After extracting the lunar module from its adapter section, the docked spacecraft will maneuver away from the rocket stage.

Two unmanned restarts of the rocket stage are planned. The second restart of the rocket stage 80 minutes after the first, will boost the stage to Earth escape velocity.

The first spacecraft service propulsion system burn will occur between restarts of the rocket stage and will raise the Apollo orbit to 113-by-131 nautical miles.

During the second day in orbit, three service propulsion system burns are planned to obtain proper rendezvous lighting later in the mission. After the third burn, Apollo 9 will be in a 115-by-271 nautical mile orbit.

During the third day of the mission, McDivitt and Schweickart will enter the lunar module through the connecting tunnel, power-up its systems, and conduct a three-hour check of systems.

-more-

Following systems evaluation, a lunar module descent propulsion system firing of about 367 seconds duration will test lunar module attitude control capability and manual throttling of the engine. This will be done with the lunar module docked with the command/service modules. The lunar module will be powered down and the crew will return through the tunnel to the command/service module. The service module 20,500-pound-thrust engine will be fired to circularize the orbit at about 133 nautical miles.

On the fourth day McDivitt and Schweickart will again transfer to the lunar module and prepare for an extravehicular return to the command module. Schweickart will put on the extravehicular maneuvering unit and perform about a two-hour space walk. This will include transfers between the lunar and command modules, collection of thermal samples, evaluations of EVA lighting provisions, extravehicular maneuvering unit evaluation, and selected photography and TV operations. The crew will then secure the lunar module and return to the command module through the docking tunnel.

A manned lunar module-active rendezvous is planned for the fifth day. This will begin with a command/service module reaction control system separation burn. The lunar module will complete a sequence of maneuvers, including a descent propulsion system burn, lunar module staging, and ascent stage docking with the command/service module some six hours later.

An unmanned lunar module ascent stage propulsion system burn-to-depletion is planned at the end of the day. The burn will be initiated by ground command.

During the balance of the 10-day flight, two service propulsion system burns to change orbital parameters and another to deorbit the spacecraft are planned.

Touchdown is planned in the prime recovery area 33 degrees north latitude and 60 degrees west longitude, about 1,000 nautical miles east of Cape Kennedy.

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KSC news release
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-15-69
FOR RELEASE: Immediate

January 15, 1969

SPACEPORT ACTIVITY HITS NEW PEAKS

KENNEDY SPACE CENTER, Fla.--Preparations for the launch of three Apollo manned space flights are proceeding on schedule at the Kennedy Space Center.

Apollo 9 is on Pad A at Complex 39 for launch into earth orbit no earlier than Feb. 28.

The Apollo 10 launch vehicle is being checked out in the Vehicle Assembly Building while the Apollo spacecraft are being readied at the Manned Spacecraft Operations Building five miles away. This launch will occur in the second quarter of 1969.

The lunar module for the Apollo 11 lunar landing mission this summer is in the initial test at the Spaceport. The command/service modules and the stages of the Saturn V launch vehicle are expected to arrive during the next few weeks.

Tuesday's schedule was typical of the work performed by the government/industry team during this period, as the day when American astronauts land on the moon comes ever closer.

At Pad A stage contractors for the Saturn 504 launch vehicle prepared for the Apollo 9 Flight Readiness Test next week.

Boeing technicians checked their first stage booster. North American Rockwell personnel were calibrating pressure sensors in ground support equipment for their second stage rocket. McDonnell Douglas crews worked on their third stage.

IBM, contractor for the Instrument Unit that guides the powerful launch vehicle in flight, tested the tracking transmitter that pinpoints the vehicle's flight path.

- more -

Grumman Aviation checked LM-3, the lunar module spacecraft that will be flown on its first manned mission.

North American Rockwell crews worked with the Apollo command and service modules to have them ready for the major milestone flight readiness test.

Bendix employees provided technical support, TWA workers performed basic installation support. Maintenance and modification work at launch Pads A and B kept Catalytic/Dow personnel busy.

In the VAB there was a full test schedule for the Saturn 505 rocket, launch vehicle for Apollo 10.

Pressurization tests continued on the hydraulic system that operates the holddown and swing arms on the Mobile Launcher which supports the vehicle.

The holddown arms keep the Saturn V anchored to the launch platform while the rocket's first stage engines are building up to 7,500,000 lbs. of thrust for liftoff.

The swing arms carry fuel, power and control lines from the launcher umbilical tower to the vehicle. Four arms are swung back early in the final countdown. Five others must be pulled away within seconds of launch to clear the way for liftoff.

The Range Safety radio receiver and associated electrical system onboard the second stage rocket was tested Tuesday. This system is designed to destroy the rocket if it veers off course at launch.

Technicians also checked out the power distribution system that will supply the Apollo 10 spacecraft during launch preparations.

The spacecraft command and service modules were in an altitude chamber at the Manned Spacecraft Operations Building. During the day the Apollo 10 backup crew of Gordon Cooper, Donn Eisele and Edgar Mitchell manned the spacecraft for a simulated altitude chamber test. Friday the backup crew will return for the test of spacecraft operations in vacuum conditions, repeating the test set for Thursday with the Apollo 10 prime crew of Tom Stafford, John Young and Eugene Cernan.

LM-4, the lunar module to be flown on Apollo 10, was placed inside its protective spacecraft adapter Tuesday. By the end of this month, the command and service modules will be mated and moved to the VAB to join the AS-505 launch vehicle.

LM-5, the lunar module to be flown on Apollo 11, may be the spacecraft that will land the first American astronauts on the lunar surface. Grumman technicians Tuesday began testing the ascent stage reaction control system and the descent stage propulsion system for leaks.

At the VAB, a Mobile Launcher was being prepared to receive the rocket stages that will launch the Apollo 11 mission.

- end -

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-24-69
FOR RELEASE: Immediate

January 27, 1969

SPACEPORT BUYS FIRE TRUCK

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $64,435 contract to Ward LaFrance Truck Corporation, Grand Central Avenue, Elmira Heights, N.Y.

The contract calls for delivery of a fire fighting vehicle with an 85-foot extendable boom. The vehicle is to be used especially during manned launches from Launch Complex 39 for rescue work and fire fighting on high structures inaccessible to conventional fire fighting equipment.

KSC launches Apollo/Saturn V space vehicles from Complex 39 in NASA's program to land astronauts on the moon.

# # #

KSC news release
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-27-69
FOR RELEASE: Immediate

January 29, 1969

AIAA MEMBERS TOUR SPACEPORT

KENNEDY SPACE CENTER, Fla.,--Nearly 60 members of the Aerospace Industries Association of America will tour the nation's Spaceport and the adjacent Cape Kennedy Air Force Station Wednesday afternoon.

The tour is part of a two-day meeting of the National Aerospace Standards Committee at the Holiday Inn on Cocoa Beach. Registration and the tour on Wednesday will be followed on Thursday by an all-day business session.

The meeting is being attended by representatives of the nation's major aerospace contractors, the Air Force and the U.S. Army's Weapons Command.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-32-69

FOR RELEASE: 10:30 a.m.
(Released simultaneously with NASA Hqs. and Manned Space Flight Centers)

January 31, 1969

BRACKETS AND FITTINGS REPLACED ON LUNAR MODULE

WASHINGTON, D.C. -- About 30 small aluminum brackets and fittings are being replaced or reinforced in the Apollo Lunar Module in a concerted campaign to rule out the possibility of cracking due to stress corrosion.

The changes are not expected to affect flight schedules.

The fittings which are being changed include gaseous oxygen tank supports in the ascent stage, propellant line supports in the descent stage, ascent stage heat-protective mountings and connecting fittings. Most of the pieces would fit in the palm of your hand.

The changes were approved January 29 by National Aeronautics and Space Administration in an Apollo Spacecraft Configuration Control Board meeting at Grumman Aircraft Engineering Corp., prime contractor for the production of the lunar module. NASA approved the action after hearing presentations by both NASA agency and Grumman engineers who have been conducting an investigation into the stress corrosion problem.

Engineers emphasized there have been no failures in any of the structural testing programs attributable to stress corrosion cracking. The change action stems from a continuing monitoring of structural parts susceptible to stress corrosion. The first stress corrosion monitoring began in December, 1967, when some small cracks were discovered in LM landing gear struts.

Nine fittings have been replaced or reinforced in LM 3, which will fly in the Apollo 9 mission and six fittings were fixed in LM 4 which is destined for Apollo 10. Both these vehicles have been pronounced ready for flight and no further structural changes are foreseen.

On LM 5 and subsequent vehicles, 33 fittings common to each vehicle have been identified which, if cracked by stress corrosion, would degrade structural integrity. To provide additional assurances on LM 5 and LM 6 about 25 of these fittings are being replaced and the remainder are being reinforced.

Modifications on LM 6 and beyond are being accomplished prior to delivery.

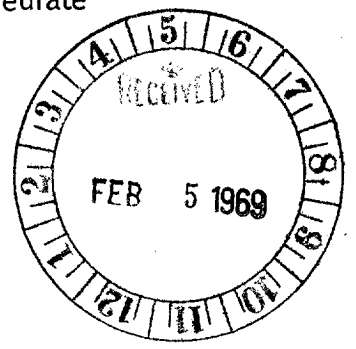
# # #

PUBLIC INFORMATION OFFICE, AREA CODE 305-867-2468

KSC news release
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A3 #62

RELEASE NO: KSC-33-69
FOR RELEASE: Immediate



February 4, 1969

MANNED SPACE FLIGHT MANAGEMENT COUNCIL MEETS AT SPACEPORT

KENNEDY SPACE CENTER, Fla. - - The Manned Space Flight Management Council meets here this week to review the overall status of the manned space flight program.

The Management Council consists of 14 top executives from NASA's Office of Manned Space Flight, and the three Manned Space Flight Centers.

Topics to be discussed include the Apollo Applications Program, advanced manned missions, mission operations, the status of the Apollo program, and other management areas.

The sessions are held monthly at one of the Centers or NASA Headquarters, usually determined by key events occuring at one of the locations.

This month's meeting at KSC precedes Thursday's flight readiness review, a major prelaunch test for Apollo 9 which is scheduled for launch February 28.

Participants from NASA Headquarters will include Dr. George E. Mueller, Associate Administrator for Manned Space Flight; Lt. Gen. Samuel C. Phillips, Director, Apollo Program who will present a program summary; and William C. Schneider, Apollo Applications Program Director who will review planning for missions in 1971 and later.

Marshall Space Flight Center attendees include Dr. Wernher von Braun, Director; Lee B. James, Manager, Saturn V Program Office, and William D. Brown, Manager, Engine Program Office.

- more -

Attendees from the Manned Spacecraft Center will include Dr. Robert R. Gilruth, Director; Christopher C. Kraft, Jr., Director of Flight Operations who will review mission operations for Apollo 9, 10 and 11; and Donald K. Slayton, Director of Flight Crew Operations who will review crew training and status for Apollo 9, 10 and 11.

Kennedy Space Center attendees include Dr. Kurt H. Debus, Director; Albert F. Siepert, Deputy Director, Center Management; Miles Ross, Deputy Director, Center Operations; Col. Thomas W. Morgan, Manager Apollo Applications Program; Rocco Petrone, Director of Launch Operations, and Rear Adm. Roderick O. Middleton, Manager, Apollo Program Office.

Mr. Petrone will report on launch preparations underway for Apollo 9, 10 and 11 at the Spaceport, and Adm. Middleton will review the launch readiness of Complex 39 facilities.

The schedule calls for the Management Council to meet in morning and afternoon sessions Tuesday, with executive sessions planned for Wednesday.

Attendance is limited to speakers and participants.

- end -

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-34-69
FOR RELEASE: Immediate

February 6, 1969

KSC CONTRACT AWARDED TO ORLANDO FIRM

KENNEDY SPACE CENTER, Fla., -- ITT Wire and Cable Division, 132 E. Colonial Drive, Orlando, has been awarded a National Aeronautics and Space Administration contract for $26,355 for special purpose electrical cable to be used at NASA's Kennedy Space Center.

The cable will be used to replenish stock at the Spaceport.

KSC launches manned and unmanned spacecraft in NASA's program of space exploration.

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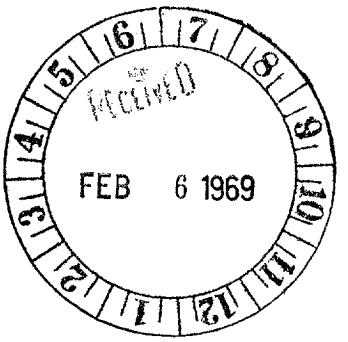
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-25-69
FOR RELEASE: Immediate

January 28, 1969

PROPOSED BUDGET ALLOCATES $455.3 MILLION FOR SPACEPORT

KENNEDY SPACE CENTER, Fla.,--The proposed NASA budget of $3.878 billion for Fiscal Year 1970 includes a total of $455.3 million for KSC.

Broken down, $344.9 million would go for research and development, $97.5 million for research and program management and $12.9 million for construction of facilities.

Operations of KSC during FY-70, which covers the period from July 1, 1969 to June 30, 1970, will include five Apollo missions utilizing the Saturn V launch vehicle from Launch Complex 39 and 15 unmanned missions, seven from Cape Kennedy and eight from the Western Test Range.

The total budget plan of $455.3 million reflects a decrease of $38.6 million from the preceding fiscal year, but that funding included money for site activation at Launch Complex 39.

"Despite the reduction in funding, the Apollo Program at KSC will experience its peak operational activity, leading to the manned lunar landing objective," said James M. Scrivener, Chief of the Resources and Financial Management Office.

Despite the phase-down of Launch Complexes 34 and 37 used to launch Saturn IB vehicles, he said, additional funding is being provided to KSC for the Apollo Applications Program which will lead to their reactivation during mid-calendar year 1971.

The $97.5 million for Research and Program Management will be used to cover the costs of Civil Service salaries and expenses, supplies, material and equipment and the administration and installation support contractors.

-more-

The funding under this appropriation (previously referred to as administrative operations appropriation) was $97.7 million in FY-69. Currently, KSC is authorized 2,920 permanent Civil Service personnel, but during FY-70 it is planned that this complement will be reduced by 40 positions, to 2,880.

This reduction, Scrivener said, has been enabled by the phase-down of Saturn IB launch operations but has been greatly minimized due to re-deployment of personnel to Saturn V operations during the peak year of Apollo Program activity.

KSC has been given $12.9 million in construction of facilities funds, $9 million of which will go for modifying facilities for AAP and $3.3 million for upgrading the KSC electrical power system. Additional projects will total approximately $600,000.

Hearings before U.S. House and Senate committees on the NASA budget are expected to begin about February 20.

"President Nixon has appointed his advisors and they are currently reviewing the nature, status and progress of the Space Program, together with capabilities to proceed, and even expand, both manned and unmanned space exploration," Scrivener said.

"NASA Director Dr. Thomas O. Paine and his staff are working with these advisors and should within the near future meet with the President to determine national Space goals during the decade of the 1970's."

Dr. Paine described the most significant aspects of the FY-70 budget as follows:

"If approved by Congress, the budget would halt a four year downward trend in the NASA budget. Taking into account funds withheld in FY-69 that will be available in FY-70, the program level for FY-70 will be 3.878 billion, the same level as in the NASA FY-69 Operating Plan.

"The budget is austere and does not make full use of the aerospace capabilities that the national has developed in Government, in industry and in universities. However, the budget permits a balanced program of useful work in critical areas.

"As a matter of policy, the budget leaves the major new program decisions, especially in the manned spaceflight area, for the next administration. Early decisions are required on manned lunar exploration, on future space station development, and after further studies are completed, on an unmanned expedition in 1977 or 1979 to the outer planets -- Jupiter, Saturn, Uranus and Neptune.

"In summary, I would characterize President Johnson's FY-70 budget for NASA as a holding budget that provides for progress, but defers critical program and funding decisions to the new administration."

In answer to a question, Dr. Paine said if NASA had additional money, the agency would move ahead far more rapidly into space station systems, including a low-cost logistics shuttle; into further lunar exploration; and into the "Grand Tour", the lineup of the planets in the 1977 to 79 period.

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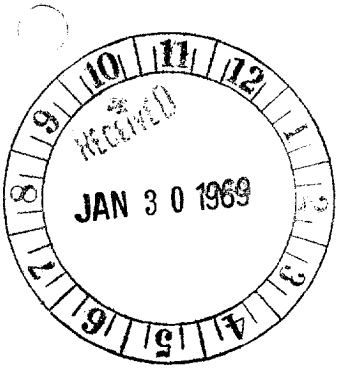
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-35-69

FOR RELEASE: Immediate

February 6, 1969

MINNEAPOLIS CONCERN AWARDED NASA CONTRACT

KENNEDY SPACE CENTER, Fla., -- Rosemount Engineering Company, Minneapolis, Minnesota, has been awarded a $52,977 contract by the National Aeronautics and Space Administration for 125 temperature transducers for NASA's John F. Kennedy Space Center.

The transducers are for use by KSC's Measurement Systems Division in support of Apollo/Saturn V launches.

Apollo/Saturn V space vehicles are launched by KSC in NASA's program to land astronauts on the surface of the moon.

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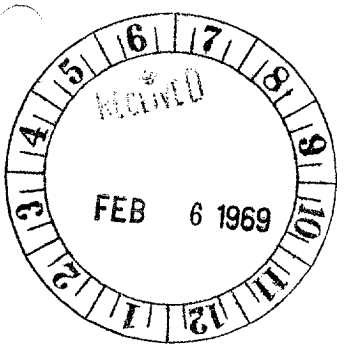
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Ad. #63

RELEASE NO: KSC-36-69

FOR RELEASE: Immediate

February 6, 1969

RHODE ISLAND FIRM WINS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla., -- The National Aeronautics and Space Administration has awarded a $69,582 contract to Kaiser Aluminum and Chemical Sales, Bristol, Rhode Island, for special application electrical cable for the John F. Kennedy Space Center.

The cable is to be used for stock replenishment at the Spaceport.

KSC launches Apollo/Saturn space vehicles and unmanned scientific satellites in NASA's program of space exploration.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-37-69

FOR RELEASE: Immediate

February 6, 1969

SPACEPORT PAPER CONTRACT GOES TO ORLANDO CONCERN

KENNEDY SPACE CENTER, Fla., -- Knight Paper, 1835 W. New Hampshire Avenue, Orlando, has been awarded a National Aeronautics and Space Administration contract for bond paper to be supplied to NASA's John F. Kennedy Space Center.

The one-year, $62,713 contract provides for paper suitable for office use at the Spaceport.

KSC is NASA's launch center for manned and unmanned missions in the U.S. exploration of space.

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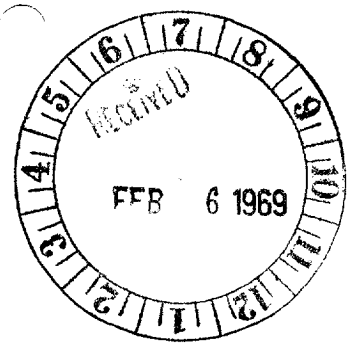
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

9A-3 #63

RELEASE NO: KSC-38-69

FOR RELEASE: 2:00 p.m.

February 5, 1969

NASA EXTENDS BENDIX CONTRACT AT KSC

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has extended a contract with the Bendix Corporation Launch Support Division for support services at NASA's John F. Kennedy Space Center.

The extension through September 30, 1969, is valued at $36.9 million. Total contract value over a five-year period, including this extension, is $122.5 million.

The contract provides for operation of technical shops, propellant component cleaning laboratories, propellant storage and distribution facilities, life support facilities, high pressure gas facilities, and support activities related to Launch Complex 39 and the KSC industrial complexes.

The Kennedy Space Center conducts manned and unmanned launches in NASA's program of space exploration.

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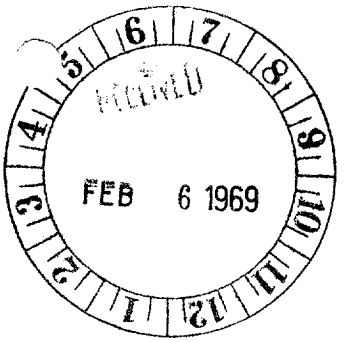
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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #63

news release

RELEASE NO: KSC-39-69
FOR RELEASE: Immediate

February 5, 1969

SPACE PROGRAM VITAL PART OF FLORIDA ECONOMY

KENNEDY SPACE CENTER - - Nearly $1,750,000,000 will have been expended in Florida by the national space program during the eight-year period which ends June 30, 1969.

This sum represents the total of prime and subcontract awards to business, educational, and non-profit organizations in the State by the National Aeronautics and Space Administration.

Only six States received more than $1,000,000,000 in space contracts from 1962 through 1968, most of them related to the Apollo manned space flight program. Through December 31, 1968, awards in Florida had reached $1,538,667,000 which was surpassed only by California, New York, and Louisiana. Alabama and Texas were the other States in the billion dollar category.

Space related activities in Florida focus on the Kennedy Space Center which is NASA's major launch operations base.

NASA contracting totaled approximately $22,250,000,000 in seven years. During the last fiscal year, Florida's share of the space contracting rose to 9.6 percent, ranking third among the States. NASA awarded 357 contracts to 139 firms in 36 Florida cities amounting to $340,559,000.

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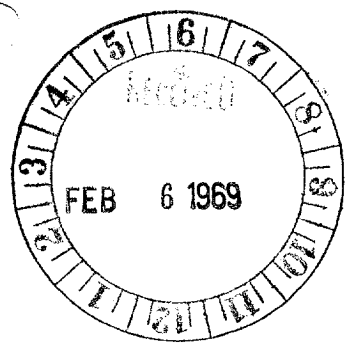
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #163

RELEASE NO: KSC-40-69

FOR RELEASE: Immediate

February 5, 1969

APOLLO TELESCOPE MOUNT EXPERIMENTERS MEET AT KSC

KENNEDY SPACE CENTER, Fla., -- NASA's Apollo Telescope Mount Contamination Control Board concluded a two-day conference at the Spaceport today.

The board studied contamination problems that conceivably might affect experiments aboard the ATM.

ATM is being developed by the National Aeronautics and Space Administration as part of the Apollo Applications Program, a follow-on to the Apollo manned lunar landing program.

The telescope mount will be manned by astronauts and will give scientists a look at the sun's activity unencumbered by the fogging effects of the earth's atmosphere.

The manned ATM offers opportunities not available with unmanned spacecraft. The scientist-astronaut will perform operations requiring judgment to select targets of scientific interest and to point the telescopes.

The group that met yesterday and today at KSC was composed of representatives of each of the five experiments aboard the ATM and representatives from KSC, NASA's Goddard Space Flight Center, Marshall Space Flight Center, the Manned Spacecraft Center, and NASA Headquarters in Washington, D. C.

The meeting was coordinated by KSC's Apollo Applications Office.

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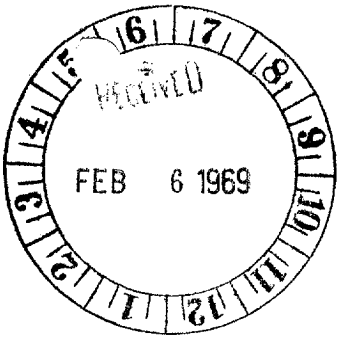
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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A3 #63

RELEASE NO: KSC-44-69

FOR RELEASE: Immediate

February 11, 1969

KSC PLANS ESSA WEATHER SATELLITE LAUNCH FEBRUARY 26

KENNEDY SPACE CENTER, Fla. -- The ninth spacecraft in the TIROS Operational Satellite (TOS) System will be launched from KSC's Complex 17B, Cape Kennedy, at 2:35 a.m. February 26.

TIROS means Television Infra-Red Observation Satellite, and it represents the world's first series of operational meteorological satellites using television cameras for observation of the earth's cloud cover.

The TOS program is a joint effort by NASA and the Environmental Science Services Administration (ESSA) to provide daily weather observations. TOS keeps two spacecraft in circular 900 mile near-polar orbits, with launches at intervals of approximately three months.

KSC's Unmanned Launch Operations Directorate (ULO) will use Delta-67 to orbit the TOS-G. ESSA had asked NASA to launch this mission as soon as possible to keep its satellite system fully operational.

ULO Director Robert H. Gray said that because these weather satellites must be placed in near-polar orbits, they are usually launched from ULO's Western Test Range in California. However, since the WTR schedule is currently so tight that it cannot reasonably meet ESSA's urgent request, the most feasible method for keeping the system operational is to launch TOS-G from Cape Kennedy.

The launch vehicle must perform three precise "dog leg" maneuvers before it reaches its orbital injection point some 2,000 miles southwest of here over the Pacific Ocean.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A3 #63

FEB 17 1969

RELEASE NO: KSC-45-69
FOR RELEASE: Immediate

February 12, 1969

KSC'S UNMANNED LAUNCH OPERATIONS PREPARING FOR TWO MARINER FLIGHTS

KENNEDY SPACE CENTER, Fla.,--The Spaceport's Unmanned Launch Operations, Directed by Robert H. Gray, is busily engaged in launch preparation for two Mariner Mars probes designed to investigate the physical, chemical and thermal properties of the Martian surface and atmosphere to help establish if the planet can support life.

NASA's Mariner Mars 1969 program calls for the two spacecraft to pass about 2,000 miles from that planet. The first will be launched February 24 and the next March 24.

Gray said Atlas-Centaur vehicles 19 and 20 will be used to launch the probes from Complex 36 at Cape Kennedy. He said deep space probes are the most difficult of all automated spacecraft missions.

Mariner F, to be launched by Atlas-Centaur 19 February 24, will fly past Mars 157 days later, on July 31. Atlas-Centaur 20 will send Mariner G on its trajectory on March 24, and the spacecraft will pass Mars on August 5, some 134 days after liftoff.

The two spacecraft will be launched on different curving trajectories that will require a coasting voyage of 226.3 million miles by Mariner F and 193.4 million miles by Mariner G to reach the target planet, which will be approximately 62 million straight-line miles from earth at the time of the encounters. To shorten the flight time on the second mission, a more direct ascent mode will be used.

The first spacecraft, to be named Mariner 6 in orbit, will make an equatorial pass by Mars, and the second, Mariner 7 in orbit, will fly by the edge of the southern polar cap.

Gray said the two-launch mission has been planned to double the chance of success and, by flying the two spacecraft past different regions of the planet, to return as much useful data about Mars as possible.

-more-

The ULO Director said the launch vehicle will fly a powered direct ascent trajectory mode. This means there will be a nearly continuous thrusting by the launch vehicle from liftoff to injection of the spacecraft into a Mars transfer orbit.

The 117-foot-tall Atlas-Centaur vehicles, developed by General Dynamics-Convair under the direction of NASA's Lewis Research Center, are the largest and most powerful launch vehicles now used in NASA's unmanned spacecraft programs.

Other key members of the ULO team are John D. Gossett, Assistant Launch Director and Centaur Program Manager of KSC; Richard J. Mazurkiewicz, Test Controller; and Daniel Sarokon, Chief Launch Conductor for General Dynamics-Convair.

This team is backed by specialists from the ULO organization, other NASA centers, and the major launch vehicle and spacecraft contractors.

The Mariner Mars 1969 missions, designed to keep the spacecraft outside the capture gravity radius of Mars to assure they do not impact and possibly contaminate the planet, are primarily exploratory investigations to serve as the basis for future experiments in the search for extraterrestrial life.

The program is administered by the Office of Space Science and Applications of NASA Headquarters, with project management assigned to the Jet Propulsion Laboratory, California Institute of Technology.

JPL has specific management responsibility for the development of the new Mariner spacecraft, operation of the deep space network, and direction of the flight operations from its control center in Pasadena.

Both Mariners will carry six experiments to probe Mars' environment, but they are not designed specifically to prove or disprove life on the planet. Hopefully, they will help establish the planet's origin and history and return data on such critical factors as temperature ranges and the presence of water that could be clues to the question of life forms.

Wide-angle and narrow-angle television cameras will take a series of pictures of the whole planet during the approach and closest passage.

-more-

This experiment is designed to acquire a large amount of pictorial data about the surface of Mars -- about 30 times that taken by the Mariner 4 mission in 1964 from 6,200 miles out -- and will yield a general map of the planet.

The far encounter pictures will start about 48 hours before the closest approach and cover a range of about 620,000 to 186,000 miles from the planet. The near encounter pictures will start about 12 hours before the closest approach when the range will change from about 4,000 miles to 2,000 miles.

Other on-board scientific instruments will record data for about 30 minutes during the near encounter. These experiments will measure surface temperatures, identify atmosphere and surface composition and properties, and obtain precise measurements of the radius of Mars at four points on its surface.

The Mariners will carry newly designed data handling equipment that will play back digital and analog recordings at a very high rate, and they are capable of high performance communication from the spacecraft while more than 62 million miles from the Earth.

# # # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #103

FEB 17 1969

news release

RELEASE NO: KSC-46-69
FOR RELEASE: Immediate

February 12, 1969

PREPARATIONS ON SCHEDULE FOR LAUNCH OF APOLLO 9

KENNEDY SPACE CENTER, Fla.,--Preparations for an on-schedule February 28 launch of Apollo 9 are being pressed at KSC this week with the final dress rehearsal - the Countdown Demonstration Test (CDDT) - just getting underway.

Spacecraft hypergolic loading and bringing the RP-1 fuel aboard the giant Saturn first stage were completed over the weekend.

Apollo 9 is the second manned flight of the Saturn V, world's most powerful rocket, and entails the first manned flight of the lunar module (LM), the bug-like machine which is to land two astronauts on the lunar surface later this year.

The Apollo 9 crew is composed of James A. McDivitt, Commander; David R. Scott, Command Module Pilot, and Russell L. Schweickart, Lunar Module Pilot.

Major purposes of the flight, which includes the first extravehicular activity of Project Apollo, includes:

- - Engineering evaluation of the LM;

- - Prove out joint operations techniques involving the LM and command/service modules, with emphasis on communications and information gathering and dissemination;

- - Testing of the Portable Life Support System (PLSS) and Oxygen Purge System (OPS) which provide life support to the astronaut when he emerges from the LM onto the lunar surface;

- - Perform a turn-around of the command/service module, docking with the LM and pulling it away from the S-IVB third stage;

-more-

-- Two ground-controlled reignitions of the S-IVB;

-- The big service propulsion (SPS) engine will be turned on five times with LM and command/service modules linked to evaluate the guidance system and determine the safety of a manual takeover.

-- LM systems will receive a thorough testing in a series of docked and undocked maneuvers in space.

The nation's attention was focused on the Spaceport on February 3 when Schweickart outlined his EVA tasks.

Schweickart gave a detailed outline of Apollo EVA preparations and illustrated the use of the PLSS and OPS.

The Apollo 9 flight has already acquired its own, somewhat lighthearted nomenclature.

The small platform at the top of the LM boarding ladder has become the "front porch", the LM footholders for Schweickart during EVA have acquired the nickname "golden slippers" and the elliptical maneuvers to be performed during the flight have taken on such glamorous names as "football" and "mini football".

Also new on the Apollo 9 flight will be the complete shedding of the four Spacecraft lunar module adapter (SLA) panels. These will be blown explosively away from the lower SLA to leave the LM exposed.

# # #

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-47-69
FOR RELEASE: Immediate

VAL

February 12, 1969

COMMITTEE OF ONE HUNDRED TOURS SPACEPORT

KENNEDY SPACE CENTER, Fla.,--Launch facilities at the NASA Spaceport and adjacent Cape Kennedy were inspected today by more than 170 members and guests of the nationally known Committee of One Hundred of Miami Beach.

The group of businessmen and financiers, traveling by chartered buses, arrived in Cocoa Beach Tuesday night where they received a presentation on the nation's space programs from NBC-TV news man Roy Neal, who worked with KSC officials in coordinating the tour.

The committee members were given a briefing on Spaceport operations at a Ramada Inn breakfast by Gordon L. Harris, Chief of Public Affairs for KSC.

The group inspected launch facilities at Cape Kennedy, including the Atlas-Centaur pads from which two Mariner spacecraft will be launched toward Mars during February and March.

Spaceport stops included visits to the Vehicle Assembly Building, Launch Control Center and Pad A at Complex 39 where the Apollo 9 space vehicle is being checked out for launch on February 28.

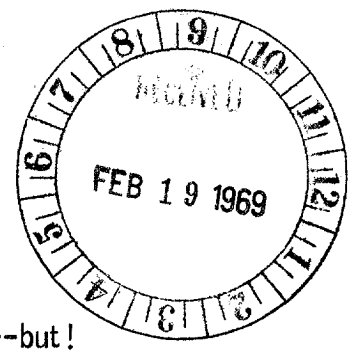
Albert F. Siepert, Deputy Director for Center Management, outlined the mechanics of an Apollo lunar landing mission and John Neilon, Deputy Director for Unmanned Launch Operations, briefed the group on scientific satellite launches at a morning session in the KSC Training Auditorium.

The group, led by James Gerity Jr., president, also inspected the Astronaut Training Facility, where astronauts prepare for the series of Apollo flights which are to carry two men down to the lunar surface before the end of 1969.

# # #

KSC news release
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-48-69
FOR RELEASE: February 20, 1969



February 18, 1969

SPACEPORT MARKS SEVENTH ANNIVERSARY OF THE JOHN GLENN SPACE FLIGHT

KENNEDY SPACE CENTER, Fla. -- It still seems incredible--but!

Less than seven years separate the pioneer flight of men around the moon and the space mission which placed the first American in earth orbit.

It was on February 20, 1962, that John Glenn became the first U.S. astronaut to orbit his home planet. His brief flight of 4 hours 55 minutes was a major step in the national program to send men to the moon.

On Christmas Eve, 1968, the crew of Apollo 8 was circling the moon at an altitude of 70 miles, beaming a telecast of their journey to an earth almost a quarter-million miles away.

U.S. space technology continues to move forward so that today at Kennedy Space Center a rocket is being assembled which may land men on the lunar surface later this year.

It has only been seven years.

For astronaut John Glenn Jr., February 20, 1962 came early. He was ready for flight by sunrise at Cape Kennedy's Complex 14, where his Mercury-Atlas rocket was being prepared for flight.

An anxious nation watched on television. Manned space flight was an infant science, and this was the first American try for orbit.

There were several delays.

The countdown ended at 9:47 a.m. as the atlas flamed to life. Minutes later the first American astronaut was circling the earth.

Glenn's three-orbit flight opened the way for other manned Mercury missions, the two-man Gemini series, and Project Apollo.

- more -

The towering Apollo-Saturn V rocket which propelled men into lunar orbit did not exist in 1962. But the final shape, size and capability of Apollo 8 incorporated the experience of John Glenn's spacefaring voyage.

Mercury-Atlas 6 measured 93 feet high and developed 367,000 pounds of thrust at liftoff. It burned kerosene and liquid oxygen.

That same combination of propellants powers the booster of the 36-story Apollo-Saturn V. Apollo 8 generated 7 1/2 million pounds of thrust--as much as 20 Atlas rockets--as the booster lifted the six-million pound space vehicle away from its launch pad.

The astronauts traveled to the moon in a spacecraft quite spacious by Mercury standards.

Glenn's spacecraft limited him to a cramped 55 cubic feet of habitable space. For purposes of comparison, the average man in a compact car has about 68 cubic feet of space in which to move around.

The more spacious Apollo spacecraft contains 210 cubic feet of habitable space. This is roomy enough for three men to live and work in comfort during a six-day journey around the moon.

The entire Apollo spacecraft, composed of three modules and a launch escape system, is 81 feet high and weighs 100,000 pounds. This weight is as much as 23 Mercury spacecraft.

Into the design of the Apollo spacecraft went the experience of 17 manned space flights and hundreds of unmanned tests.

Glenn traveled 75,000 miles in three revolutions of the earth to provide the first orbital test of man-and-machinery for the U.S. space program. The results of the Friendship 7 flight helped enable the Apollo 8 astronauts to travel 590,000 miles to and from the moon.

Apollo 8 established an impressive number of other space flight records. For the first time men flew above the earth's magnetic field and within the gravitational influence of another body in space. For the first time a live telecast showed the full earth disk.

The Apollo 8 astronauts were the first men to view the moon closeup--from a distance of 70 miles--and to view the back side of the moon.

Early on the morning of December 27, Apollo 8 reentered the earth's atmosphere at a record speed of almost 25,000 miles per hour. Again, all systems functioned perfectly. So accurate was its trajectory that the spacecraft landed within three miles of the main recovery ship, the carrier Yorktown.

Today, at Kennedy Space Center, a space vehicle is being assembled which is scheduled to make the first manned lunar landing later this year.

Events move quickly in the Space Age. Just seven years ago, February 20, 1962, John Glenn arrived at a Cape Kennedy launch pad to keep a date with history.

- end -

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-91-69
FOR RELEASE: Immediate

February 18, 1969

SPACEPORT ORDERS FOUR FIRE RESCUE VEHICLES

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $209,872 contract to the FWD Corporation, 105 East Twelfth St., Clintonville, Wisconsin.

The contract is for four fire/rescue pumper vehicles to be used in support of manned launch operations, personnel rescue and fire suppression on high structures, roofs and remote areas at the Spaceport's Launch Complex 39.

The Kennedy Space Center conducts manned and unmanned launches from the Spaceport at Merritt Island and adjacent Cape Kennedy.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #103

FEB 2 0 1969

news release

RELEASE NO: KSC-92-69

FOR RELEASE: Immediate

February 18, 1969

CALIFORNIA FIRM GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded an $81,969. contract to Genisco Technology, 1533 26th Street, Santa Monica, Calif.

The contract is for pressure transducer components to be used in the Apollo/Saturn V lunar landing program.

The Kennedy Space Center conducts manned and unmanned launches from the Spaceport at Merritt Island and adjacent Cape Kennedy.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A3#65

FEB 20 1969

news release

RELEASE NO: KSC-93-69

FOR RELEASE: Immediately

February 18, 1969

RCA AWARDED KSC CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $36,922 contract to RCA Electronic Components, 415 S. Fifth Street, Harrison, N. J.

The contract is for vidicon type electronic tubes used in communications support at Launch Complex 39 and the KSC Industrial Area.

The Kennedy Space Center conducts manned and unmanned launches from the Spaceport at Merritt Island and adjacent Cape Kennedy.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A? H63

news release

RELEASE NO: KSC-94-69

FOR RELEASE: Immediate

February 18, 1969

IBM GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $71,000 contract to the International Business Machines Corp., 18100 Frederick Pike, Gaithersburg, Md.

The eight-month contract calls for a comprehensive evaluation of checkout and data management system concepts used in space vehicle mission operations.

The Kennedy Space Center conducts manned and unmanned launches from the Spaceport at Merritt Island and adjacent Cape Kennedy.

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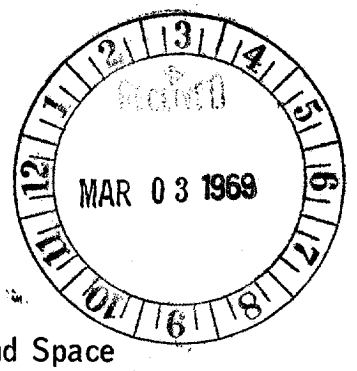
KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-102-69

FOR RELEASE: Immediate



February 25, 1969

COUCH MANUFACTURING COMPANY AWARDED NASA CONTRACT

KENNEDY SPACE CENTER, Fla. - - The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a contract for $30,481 to Couch Manufacturing Company, Grant, Florida.

The contract calls for pumps for drainage improvement of Swartz Road West and the NASA Causeway West.

The Kennedy Space Center conducts manned and unmanned launches in the nation's program of space exploration. A major goal of the Apollo Program is to land astronauts on the moon and return them safely to earth.

- end -

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KSC

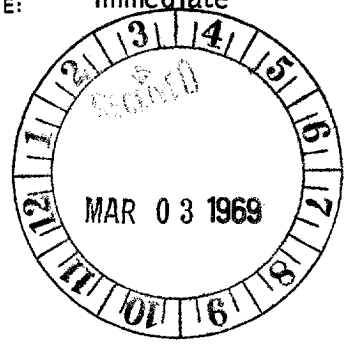
KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-103-69

FOR RELEASE: Immediate



February 25, 1969

TNT COMMUNICATIONS, INC. AWARDED NASA CONTRACT

KENNEDY SPACE CENTER, Fla. - - The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a contract for $41,349 to TNT Communications, Inc., 62 - 10 34th Avenue, Woodside, New York.

The contract calls for fabrication and installation of four mirror systems for viewing areas in Firing Room #4 of the Launch Control Center at Launch Complex 39.

The Kennedy Space Center conducts manned and unmanned launches in the nation's program of space exploration. A major goal of the Apollo Program is to land astronauts on the moon and return them safely to earth.

- end -

2A-3
#64

KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-104-69

FOR RELEASE: Immediate

February 27, 1969

DRIVE-THROUGH TOUR OF KSC CLOSED THIS SUNDAY

KENNEDY SPACE CENTER, Fla. -- The normal Sunday drive-through tour of the Kennedy Space Center will be curtailed due to the postponed launch of Apollo 9.

The NASA Spaceport on Merritt Island, where pre-launch preparations are in progress, will not be available for drive-through motorists. Operational traffic supporting the launch will be at least as heavy as on workdays and must be permitted to flow without interruption.

The Air Force Eastern Test Range will also be closed to the public since Cape Kennedy Air Force Station has many vital functions in support of the NASA launch.

NASA's bus tours operated from the Visitor Information Center which can be reached via Gate 3, south of Titusville on U.S. Highway 1, will continue as they do on normal work days.

Apollo 9 is scheduled for launch at 11 a.m. Monday.

# # #

KSC news release
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-112-69
FOR RELEASE: Immediate

March 12, 1969

APOLLO REACHES NEW PEAK

KENNEDY SPACE CENTER, Fla.--Project Apollo reached a new peak of activity this week with one spacecraft nearing the end of a critical 10-day mission and three more Saturn V/Apollo space vehicles in flow at the NASA spaceport here.

The first installment of Apollo 12 flight hardware - the Saturn V's S-IVB 3rd stage - arrived at the Cape Kennedy Skid Strip by Super Guppy last Saturday (March 8) and additional segments of the 363-foot tall Saturn V/Apollo are to arrive later this month, in April and in early May.

The flow of Apollo 12 hardware begins as the Apollo 10 space vehicle was moved to Launch Complex 39's Pad B and the Saturn V rocket and spacecraft for Apollo 11 undergo checkout in the Vehicle Assembly Building and Manned Spacecraft Operations Building respectively.

Scheduled to arrive before the end of March are the command and service modules, instrument unit and spacecraft lunar module adapter (SLA).

The S-II second stage and interstage are to arrive at KSC in April and the powerful S-IC first stage booster is to end the Apollo 12 procession in early May.

It was only one week ago - March 3 - that a Saturn V burned its way through a low cloud cover to place Astronauts James A. McDivitt, David R. Scott and Russell L. Schweickart into earth orbit for the crucial first manned flight test of the lunar module which is to carry two astronauts to the moon's surface later this year.

The Apollo 9 flight is to end with a spacecraft splashdown in the Atlantic Ocean near Bermuda on Thursday.

-more-

The Apollo 10 space vehicle was moved to Pad B on Tuesday, delayed for a day for a minor modification of the boost protective cover which protects the spacecraft on its flight through the atmosphere.

Apollo 10 - with a crew composed of Astronauts Thomas P. Stafford, commander; John W. Young, command module pilot, and Eugene A. Cernan, lunar module pilot - is to be a dress rehearsal for the lunar landing mission later this year - perhaps on Apollo 11 in mid-summer.

The LM is to be detached from the command and service modules and enter a transfer orbit which will carry Stafford and Cernan to within 50,000 feet of the moon's surface before they soar back up to a higher altitude to rendezvous and dock with the CSM orbiting the moon.

The Apollo 11 mission could conceivably be the first calling for a lunar landing and Apollo 12 is tentatively scheduled to be a return visit to the moon's pockmarked surface.

The Apollo 10 mission is the first scheduled for launch from Pad B. The first four Saturn V flights - two unmanned and two manned - were all launched from Pad A.

# # #

KSC

KENNEDY SPACE CENTER, FLORIDA

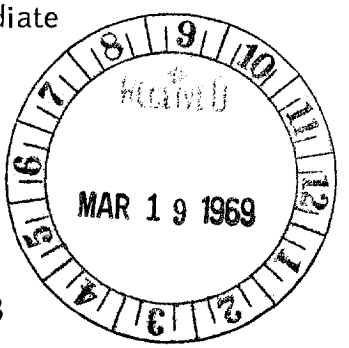
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #64

news release

RELEASE NO: KSC-115-69

FOR RELEASE: Immediate



March 17, 1969

APOLLO 10 LAUNCH SCHEDULED FOR MAY 18

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration said today if the Apollo 10 mission profile remains in its present form -- a lunar orbit mission with a lunar module descent to within 50,000 ft. of the moon's surface -- the launch day will be May 18. The May 18 date is the second day of the lunar launch window for that month.

The change from the first to the second day of the May window will permit observation and collection of data on Apollo landing site 2 as the area of primary interest and also will permit observation of site 3 after sunrise on the Moon. The Apollo site 1 was the area of primary interest in the December flight of Apollo 8.

A final decision as to the specific nature of the Apollo 10 mission will be made next week after a review of the Apollo 9 mission.

# # #

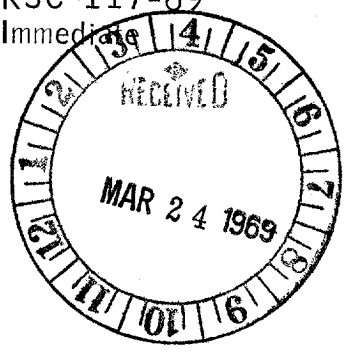
2A-3 #64

KSC

KENNEDY SPACE CENTER , FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-117-69
FOR RELEASE: Immediate



March 20, 1969

NEW JERSEY FIRM WINS NASA CONTRACT

KENNEDY SPACE CENTER, Fla.,--NASA's John F. Kennedy Space Center has awarded a contract for $34,426 to the Resistoflex Corporation, Woodland Road, Roseland, New Jersey.

The contract is for stainless steel reinforced Teflon hoses to be used with ground-test and check-out equipment for the giant Saturn V rocket used in Project Apollo.

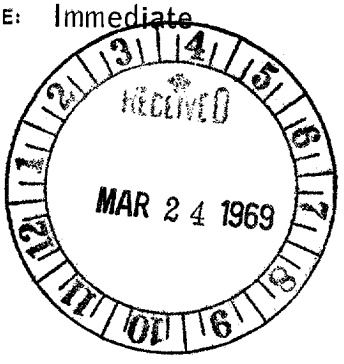
KSC conducts manned and unmanned launches from its Merritt Island Spaceport and launch sites on adjacent Cape Kennedy.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-118-69
FOR RELEASE: Immediate



March 20, 1969

ASTRONAUT RESCUE TEAM WILL HAVE CLOSEST VIEW OF APOLLO 10 LAUNCH

KENNEDY SPACE CENTER, Fla. - - "The first time I watched a Saturn V liftoff from less than half a mile away, I was scarey. The second time I was still scarey, but I wouldn't miss it."

KSC fireman Joe Morgan intends to be at the controls of an M-113 armored personnel carrier again this May, just 2,400 feet away from the fiery liftoff of Apollo 10 headed for orbit around the Moon.

Fireman Rex Yates will be another member of the 14-man volunteer rescue team stationed at the ground end of Pad B's emergency egress slide wire, extending to Earth from the spacecraft level of the launch tower. His reaction to the Apollo 9 launch: "You sit in there and hold tight. It's stimulating!"

Prime ingress team commander Al Wozniak says the Saturn V launches from closeup are like medium-size earthquakes, similar to ones he has experienced in Turkey.

The team's job is to be prepared to rescue the Apollo astronauts and closeout crew from any emergency situation that might develop prior to launch.

Wearing special clothing and equipment, prepared to go into action at a moment's notice, the rescue team can race their armored tanks up on the pad and get to the spacecraft 320 feet above the Mobile Launcher deck in less than four minutes.

For weeks prior to a manned launch, the rescue team members are in rigorous training to face any hazards that might develop during the final hours of a countdown.

Clad in heat reflective garments and hoods, carrying their own air supply with them, wearing shell back leather gloves and firefighters' hard toe rubberized boots, the men clamber through an obstacle course at their training area that duplicates emergency conditions they could encounter if something were to go wrong at the launch pad.

Operations Commander Roy Terry, chief of the KSC Fire Training section, says selection of candidates for the Apollo 10 rescue team is still in process.

- more -

"There are certain requirements that must be met to qualify for this operation," Terry explained, "and we intend to see that the astronauts are provided with the best rescue support team that money and experience can buy. The process of elimination is a progressive operation and selected candidates are continuously undergoing a rigorous training program to prove out their capabilities."

Three medics on the team are supplied by the Department of Defense. For Apollo 10 they will be Chief Master Sgt. James L. Armour, from Wilford Hall AF Hospital, Lackland AFB, Texas; Master Sgt. James K. Tanner, from Brooke Army Medical Center, Ft. Sam Houston, Texas; and Senior Master Sgt. William R. Churchill, from David Grant AF Hospital, Travis AFB, Calif.

The rescue team arrives at the slide wire terminal on launch day one hour before the astronaut prime crew enters the spacecraft. At T minus 30 in the count, they all board the three M-113 tanks and button up to ride out the launch or go into emergency action.

At T minus 1, they begin using a regulated air supply, check their ear plugs and communications ear phones that help protect their hearing from the torrent of sound created by the first stage rocket engines.

The ground trembles violently when those engines roar into life, a roar that moves in staccato waves across the launch complex. Only the astronauts, inside the Apollo spacecraft, are closer to the fire-spewing first stage engines.

-end-

A-3
#64

KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-121-69

FOR RELEASE: Immediate

March 25, 1969

HOUSTON CONCERN GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $27,790.11 contract to the Gray Tool Co., 7135 Ardmore, Houston, Texas, for replacement parts for pipe fittings at the Spaceport's Launch Complex 39.

The fittings are part of the high pressure pneumatic piping systems at the Complex.

From Complex 39, the Kennedy Space Center launches Apollo/Saturn V space vehicles used in the U.S. program to land astronauts on the moon.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-122-69
FOR RELEASE: Immediate
(Being released simultaneously with NASA Hqs.)

March 24, 1969

APOLLO 10 HEADED FOR LUNAR ORBIT

KENNEDY SPACE CENTER, Fla. -- Apollo 10, scheduled for launch May 18 by the National Aeronautics and Space Administration, will be a lunar orbit mission in which two astronauts will descend to within 50,000 feet of the Moon's surface.

The decision today to fly the mission as previously planned followed a series of reviews of technical and operational data from the Apollo 9 flight in earth orbit early this month and an examination of options for the next mission.

The eight-day Apollo 10 flight is scheduled for launch from Kennedy Space Center, Florida, with Astronauts Thomas P. Stafford as Spacecraft Commander, John W. Young as Command Module Pilot, and Eugene Cernan as Lunar Module Pilot. The backup crew is L. Gordon Cooper, Donn F. Eisele and Edgar D. Mitchell.

The purpose of the flight is to provide additional experience in combined system operation during the 3-day trip to the vicinity of the Moon and in lunar orbit. With the exception of the actual landing of the lunar module on the lunar surface, the mission plan is the same as for the lunar landing mission.

While the spacecraft circles the Moon at an altitude of about 69 miles, Stafford and Cernan in the lunar module will separate from the command and service modules, approach twice to within about 10 miles of one of the pre-selected Apollo landing sites, then rejoin Young in the command module in maneuvers similar to those performed in Earth orbit by Apollo 8.

The closest approach to the surface will be at pericynthion of the lunar module transfer orbit. Because of propellant limitations in the ascent stage for this flight it will be impossible to make a landing and subsequent liftoff from the Moon.

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During 11 more revolutions of the Moon, the crew will make landmark sightings, take photographs, and transmit live TV views of the lunar surface, the Earth from lunar distance, and their own activities inside the command module.

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KSC

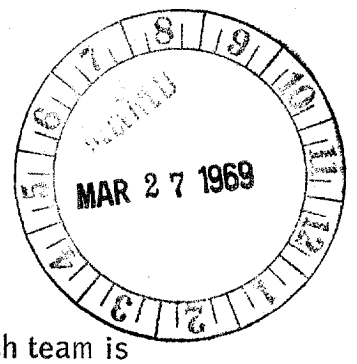
KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-123-69

FOR RELEASE: Immediate



March 26, 1969

LAUNCH TEAM PREPARES APOLLO 10 FOR LUNAR VOYAGE IN MAY

KENNEDY SPACE CENTER, Fla. -- The government industry launch team is moving along at top pace preparing three more Apollo/Saturn V vehicles for launch.

Apollo 10, to be launched May 18, is at Launch Pad B. Apollo 11, to be launched in July, is undergoing checkout in the Vehicle Assembly Building. Stages of Apollo 12 are arriving at the Center for assembly.

Crews of NASA/industry engineers and technicians spend approximately five months conducting tests to prepare each vehicle.

Prime responsibility for supervising checkout operations for Apollo 10 rests with Donald E. Phillips, the Director of Launch Operation's chief test conductor for the mission.

Phillips oversees the testing of both the Saturn V launch vehicle and its Apollo spacecraft. Eugene M. Sestile, NASA launch vehicle test conductor, has responsibility for the three rocket stages and instrument unit.

Sestile, of the Launch Vehicle Operations Directorate, supervises the Apollo 10 rocket's checkout, including individual stage checkout in the VAB, stage mating, mechanical and electrical hookups, and checkout of ground support and flight systems.

Responsibility for preparation of individual rocket stages rest with respective contractor test conductors--Boeing's William R. Melton for the first stage; D. C. Mitchell of North American Rockwell for the second stage, and J. A. Latherow of McDonnell Douglas on the upper stage. Stanley Lazar is IBM's test conductor for the instrument unit.

While the rocket was prepared in the VAB, the Apollo spacecraft underwent a series of rigid tests in the Manned Spacecraft Operations Building to insure flight readiness.

- more -

The most demanding tests take place in altitude chambers which simulate the vacuum conditions of space. Unmanned chamber tests for the command-service and lunar modules are followed by manned runs with prime and backup crews participating.

Following completion of tests in the MSOB, the spacecraft is transferred to the VAB for mechanical mating with the assembled rocket. Final tests involving the integrated space vehicle are conducted there before the complete unit is moved to the launch pad.

NASA's C. A. Chauvin, H. K. Widick, R. D. Carothers and I. M. Levann are assigned to supervise the Apollo 10 spacecraft's checkout. All are with the Spacecraft Operations Directorate.

Chauvin is the command-service module test conductor, Widick the lunar module test conductor, Carothers the command-service module manager and Levann the lunar module manager.

The Apollo spacecraft industry team includes Henry Kuznicki of North American Rockwell, spacecraft manager for the command-service modules, and Grumman Aircraft's William Looney, lunar module manager.

Roy Tharpe represents KSC's Technical Support Directorate for Apollo 10 assigned as test support controller. He coordinates specialized test and launch facilities requirements for the mission.

- end -

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NEWS RELEASE

RELEASE NO: KSC-129-69
FOR RELEASE: Immediate

APR 7 1969

April 1, 1969

TWO HISTORIC ROCKETS ON PUBLIC VIEW AT SPACEPORT

KENNEDY SPACE CENTER, Fla.,--Two rockets which made space history have been erected at the NASA Visitor Information Center as the largest exhibits available there to the public daily.

One is the Jupiter C, devised by the U.S. Army's ballistic missile development organization in 1956. It launched the first U.S. earth satellite, Explorer I, January 31, 1958.

The other is the Gemini Titan which propelled 20 astronauts into Earth orbital missions in 1965 and 1966.

Jupiter C was based upon the Army Redstone missile which was later employed, in modified form, to launch the first U.S. astronauts, Alan Shepard and Virgil Grissom, in solo suborbital flights.

Jupiter C was first launched in September 1956 carrying a model nose cone far into space and 3,000 miles down the Atlantic Missile Range. The flight marked the first time the United States had hurled an object into space which reentered earth's atmosphere intact.

The Gemini program involved two-man space missions during which astronauts docked their spacecraft with Agena target vehicles, thus demonstrating the maneuver essential to the success of the Apollo program to land men on the Moon and return them to earth.

Since the inception of NASA's public bus tours July 25, 1966, a Mercury Redstone, exact duplicate of the first U.S. manned rocket, has been displayed at the main KSC gate near U.S. Highway 1.

KSC also maintains a Jupiter C and Mercury Redstone at Complex 56 at Cape Kennedy, one of the two U.S. Army launch sites from which early space missions were launched.

- more -

A third rocket will be added at the Visitor Center shortly. It will be Juno, a more powerful vehicle than Jupiter C, which was employed to place satellites in earth orbit and to hurl a Pioneer probe past the moon.

Dr. Kurt H. Debus, Director of the Kennedy Space Center, supervised the Jupiter C, Juno and Mercury Redstone launches.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-130-69

FOR RELEASE: Immediate

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APR 7 1969

April 2, 1969

WALTER REUTHER TOURS SPACEPORT

KENNEDY SPACE CENTER, Fla. -- Walter P. Reuther, president of the United Automobile, Aerospace and Agricultural Implement Workers of America, was briefed on the Nation's launch facilities in a tour of the Spaceport and Cape Kennedy yesterday (Tuesday).

He received an explanation of the National Aeronautic and Space Administration's scientific satellite program from Robert H. Gray, KSC's Director of Unmanned Launch Operations.

He was briefed on the manned flight program, aimed at landing U.S. astronauts on the moon, by the Spaceport's Director of Launch Operations, Rocco A. Petrone.

Reuther met with Dr. Kurt H. Debus, Director of KSC, and had lunch with KSC officials in the Director's dining room.

Reuther and his party visited the Air Force Museum and, elsewhere on the Cape, saw Launch Complex 34, site of the first manned Apollo launch; Launch Complex 36, where two Mariner spacecraft now on their way to Mars, were recently launched; Launch Complex 14, the Project Mercury pad, and Launch Complex 19, where Gemini-Titan space vehicles were launched.

At the Spaceport's Launch Complex 39, Reuther saw Apollo 10 on its pad being prepared for a May 18 launch to lunar orbit, and the Apollo 11 and 12 vehicles being assembled and checked out inside the Vehicle Assembly Building.

They viewed the giant transporter which carries the Apollo/Saturn V vehicles from the VAB to the launch pads, and the Launch Control Center from where the assembly, checkout and launch of the vehicles are conducted.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-131-69
FOR RELEASE: Immediate
APR 7 1969

April 3, 1969

CALIFORNIA FIRM GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has awarded a $27,728 contract to Climet Instruments, 1240 Birchwood Drive, Sunnyvale, California.

Under the contract, the firm is to furnish replacement parts for repair of Climet wind measurement systems used in support of Saturn launches.

The Saturn rocket is used in NASA's program aimed at landing Apollo astronauts on the surface of the moon.

Apollo/Saturn space vehicles are assembled, checked out and launched by the Kennedy Space Center.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NEWS RELEASE

RELEASE NO: KSC-132-69
FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

TEXAS FIRM AWARDED CONTRACT

KENNEDY SPACE CENTER, Fla. -- The Gray Tool Company, Houston, Texas, has been awarded a $55,155 contract by NASA's John F. Kennedy Space Center.

The contract is for the supply of hydraulic seal rings used at Saturn V/ Apollo Launch Complex 39.

The Kennedy Space Center conducts manned and unmanned launches from its Merritt Island Spaceport and from adjacent Cape Kennedy.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-133-69
FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

MOTOROLA AWARDED CONTRACT

KENNEDY SPACE CENTER, Fla. -- The Motorola Communications and Electronics Company, Clearwater, Fla., has been awarded a contract for $63,206 by NASA's John F. Kennedy Space Center.

The contract is for 51 portable radio transceivers to be used in test and launch activities at KSC.

The Kennedy Space Center conducts manned and unmanned launches from its Merritt Island Spaceport and from adjacent Cape Kennedy.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-134-69

FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

MARTIN MARIETTA RECEIVES CONTRACT

KENNEDY SPACE CENTER, Fla. -- The Martin Marietta Corporation, Denver, Colorado, has been awarded a $154,839 contract by NASA's John F. Kennedy Space Center.

The award is for a 14-month study of the requirements to be imposed on the facilities and operations at KSC in support of the Apollo Applications Program and its Saturn 1 Orbital Workshop.

The Kennedy Space Center conducts manned and unmanned launches from its Merritt Island Spaceport and from adjacent Cape Kennedy.

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PUBLIC INFORMATION OFFICE, AREA CODE 305-867-2468

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-135-69
FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

RESISTOFLEX AWARDED CONTRACT

KENNEDY SPACE CENTER, Fla. -- The Resistoflex Corporation, Woodland Road, Roseland, New Jersey, has been awarded a $34,426 contract by NASA's John F. Kennedy Space Center.

The contract is for steel reinforced Teflon hoses used in support of ground-test and check-out equipment for the Saturn V launch vehicle.

The Kennedy Space Center conducts manned and unmanned launches from its Merritt Island Spaceport and adjacent Cape Kennedy.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A3 #65

RELEASE NO: KSC-136-69
FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

APOLLO 10 CREW IN FINAL TRAINING FOR LUNAR MISSION IN MAY

KENNEDY SPACE CENTER, Fla. -- The Apollo 10 crew is completing training in preparation for their journey to lunar orbit in May.

The astronauts spend much of their training time in spacecraft simulators, practicing important phases of a half-million-mile voyage calculated to take them within 10 miles of the moon's surface.

"We can fly any part of the mission in the simulators under conditions which are realistic for the astronauts and for ground controllers," said Riley McCafferty, chief of Flight Crew Operations for the Manned Spacecraft Center.

Apollo 10 crewmen arrived at Kennedy Space Center in mid-March. Prime crewmen are Thomas P. Stafford, Commander -- John W. Young, Command Module Pilot -- and Eugene A. Cernan, Lunar Module Pilot. The backup crew consists of astronauts L. Gordon Cooper, Donn F. Eisele and Edgar D. Mitchell. Flight crew support team members are astronauts Joe H. Engle, James B. Irwin and Charles M. Duke, Jr.

Astronaut training and crew quarters operations are scheduled by McCafferty, chief of the Flight Crew Operations Branch.

Training time averages about 20 hours a week for the prime crew and the same for the backup crew.

"On Apollo 10 we will fly and dock two spacecraft in lunar orbit for the first time. The crew will practice these maneuvers repeatedly in the simulators," McCafferty explained.

The simulators duplicate the interior of an Apollo command module and a lunar module.

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Inside, the astronauts go through all of the motions and tasks required in actual space flight. Through the simulator windows they see scenes of the rendezvous target vehicle, the stars, the moon and earth--as viewed from space.

Practice sessions simulate liftoff and entry, rendezvous and docking, and all other phases of space flight.

"As far as the Apollo 10 crewmen and ground controllers are concerned, it is an actual flight," McCafferty said. The simulators can be controlled from consoles at the Spaceport or at Mission Control in Houston during an integrated training session.

As launch day draws near, this integrated training with Houston is stepped up, with more simulator time scheduled for the prime crew.

Referring to the support team, McCafferty said, "It is their job to aid in preparing the spacecraft and the crew for flight. They act as liaison, perform spacecraft testing, review spacecraft systems and keep the crews briefed on changes."

At the same time the support team is gathering experience and training for future space missions.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

News Release

RELEASE NO: KSC-137-69

FOR RELEASE: Immediate

APR 7 1969

April 3, 1969

PICKER INDUSTRIAL AWARDED CONTRACT

KENNEDY SPACE CENTER, Fla. -- Picker Industrial, a division of the Picker Corporation, Hialeah, Fla., has been awarded a contract for $27,468 by NASA's John F. Kennedy Space Center.

The contract is for the labor and material to upgrade an X-ray image intensification unit at the Manned Spacecraft Operations Building at KSC.

The Kennedy Space Center conducts manned and unmanned launches from its Merritt Island Spaceport and from adjacent Cape Kennedy.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-138-69
FOR RELEASE: Immediate

April 14, 1969

SPACEPORT TOURS HAVE HEAVY EASTER PATRONAGE

KENNEDY SPACE CENTER, Fla.,--The Visitors Information Center at the nation's Spaceport reached new attendance heights over the Easter holiday with public bus tour patronage up 73 per cent over that for the same period last year.

The tour total for the period from March 30 through April 11 was 68,859. During the Easter period extending from April 8 through April 19 last year the tour total was 38,068.

The peak date during the Easter season this year was April 1 with tour patronage reaching 7,440. The peak during the 1969 Easter holiday period was on April 15 when 4,124 tour patrons viewed the Spaceport's facilities.

The bus tours were not operated on March 31 but were closed down for the day as part of a national day of mourning for former President Dwight D. Eisenhower.

The tour patrons viewed a number of new attractions at the VIC. The new exhibits include Gemini Titan, Jupiter C and Juno launch vehicles.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-139-69
FOR RELEASE: Immediate

April 14, 1969

DR. DEBUS NAMED BREVARD BOND DRIVE CHAIRMAN FOR 7TH CONSECUTIVE YEAR

KENNEDY SPACE CENTER, Fla.-- Dr. Kurt H. Debus, Director of the Kennedy Space Center, has been appointed Chairman of the Brevard County Freedom Shares and United States Savings Bond Plan for the seventh consecutive year.

"We have enjoyed good success, over the years, in Brevard County," said Dr. Debus. "Freedom Shares and Savings Bonds play an important role in maintaining economic stability while supporting vital national committments, such as the space program.

"Your continued personal interest, shared by each one of you as well as other Government and industrial executives in Brevard County, will contribute materially to the success of the 1969 campaign."

The organizational meeting of the 1969 drive will be held in KSC's Training Auditorium at 11 a. m. on May 5. Dr. Debus will send letters to Government and industrial leaders asking their cooperation in the campaign.

Elmer Rustad, National Director of the Savings Bond Division of the U. S. Treasury Department, praised Dr. Debus' past efforts in directing Brevard County's drives.

Michael Mainguth, State Director of the Savings Bond Division, said "Dr. Debus' dedication to this project will, I am sure, assure another successful campaign."

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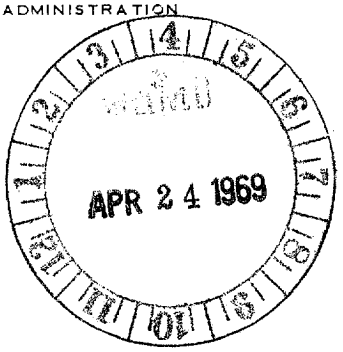
KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.3 #105

RELEASE NO: KSC-144-69
FOR RELEASE: 3:00 p.m.
(Released simultaneously with NASA Hqs.)



April 22, 1969

McDONNELL DOUGLAS GETS $39,960,000 CONTRACT FOR LAUNCH SUPPORT SERVICES AT SPACEPORT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has extended a contract with McDonnell Douglas Corporation Huntington Beach, Calif., for launch support services at NASA's John F. Kennedy Space Center.

The extension is for $39,960,000 and brings the total cost to $74,183,610.

The contract runs through December 31, 1969, and calls for launch support for Saturn S-IVB stages for the Saturn IB and Saturn V programs. Saturn V vehicles launch the Apollo spacecraft in the U.S. program to land astronauts on the moon. The Saturn IBs will be used in NASA's Apollo Applications Program, the follow-on program to the lunar landing.

The Kennedy Space Center conducts NASA's manned and unmanned launches and is responsible for development of launch facilities for the Apollo/Saturn lunar landing program.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2447
#165

RELEASE NO: KSC-147-69
FOR RELEASE: Immediate

April 24, 1969

APOLLO 10 MOON MISSION
FIRST LAUNCH AT PAD B

KENNEDY SPACE CENTER, Fla. -- Apollo 10 will be the first mission launched from Pad B at Launch Complex 39.

Except for relatively minor differences, Pad B is identical to Pad A from which all four previous Saturn V vehicles were successfully launched.

The top of Pad B is five feet higher than A to permit better drainage.

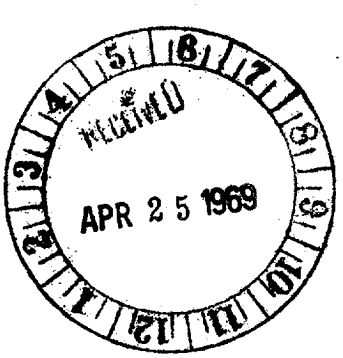
The electrical substation at Pad A was located in the open about 150 feet from the west slope. The station sustained some damage during the Apollo 4 and Apollo 6 launches. Pad B's substation has been protected from launch damage by locating it beneath the pad's western slope.

Valve pits controlling industrial, firex and potable water supplies are also differently situated because the water lines supplying Pad B were routed differently from Pad A.

D. D. Buchanan, Complex 39 chief engineer, said the experience acquired from Pad A launch operations influenced the design of Pad B.

Mobile Launcher 3 is being used for the first time for Apollo 10. It was modified to include changes already incorporated in ML 1 and ML 2.

A slide wire escape route has been installed at Pad B like that employed at Pad A which utilizes a cable car which can transport nine persons from the Apollo level of the launcher to Earth 2,400 feet west of the pad.



KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-152-69
FOR RELEASE: Immediate

April 29, 1969

SPACE STATION DESIGN STUDY

WASHINGTON, D.C. -- The National Aeronautics and Space Administration requested proposals today from the aerospace industry for design and planning studies of a space station program for the mid-1970's.

Major effort of the studies will be preliminary design and planning of a 12-man Earth-orbital space station which could be developed by 1975. It would be designed to have an operational life of 10 years, subject to resupply of expendables and rotation of crews with logistics vehicles. The space station is envisioned as the initial element of a large space base.

The work will include a conceptual design of a 50-man space base made up of specialized modules assembled in low Earth orbit in the late 1970's and early 1980's. The space base would be a centralized facility in orbit comparable to a scientific and technical research, development and operations center on Earth.

Scientists and engineers of many desciplines could utilize its unique features, such as weightlessness, vacuum, Earth viewing and unobstructed celestial viewing for a large variety of research and applications activities.

Proposals are to be submitted to the Office of Manned Space Flight, Washington, D. C. on June 9. From the proposals two firms will be selected to perform 11-month studies under cost-plus-fixed-fee contracts. One contract will be managed by NASA's Marshall Space Flight Center, Huntsville, Ala., and the other by NASA's Manned Spacecraft Center, Houston.

Logistic systems to resupply expendables and rotate crews of both the space station and the space base will be included in the studies. Modified Apollo and Gemini spacecraft will be considered as initial logistic systems for the space station design in the event an advanced space shuttle would not become available

- more -

for the early phase of space station operations. Various concepts of advanced space shuttles will be evaluated to identify the most economical means of supplying a large space base. Each of the shuttle concepts would be capable of land landing at precise locations.

Data developed from these and other studies will be available for final design of a future space station if such a program is approved for development.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-153-69
FOR RELEASE: Immediate

April 30, 1969

APOLLO 10 PAD RESCUE TEAM

KENNEDY SPACE CENTER, Fla. -- Fourteen specially trained men will be just 2400 feet from the fiery blaze of Apollo 10's engines as it heads for lunar orbit this May.

Stationed at the ground terminus of Pad B's emergency slide wire, the volunteer team will be prepared to rescue the Apollo astronauts and close out crew should an emergency occur prior to liftoff. The team consists of 11 Kennedy Space Center firemen and three Military Medical Technicians. The firemen are employed by Wackenhut Corp., a subcontractor at the Space Center.

Three armored personnel carriers will also be positioned there. Should it be necessary to reach the astronauts, the armored vehicles would carry the rescue team to the pad where they could get to the spacecraft, located at the 320-foot level of the Saturn V rocket, within less than four minutes.

These carriers also provide blast and noise level protection to the rescue team. Additional protection is afforded by special heat reflective clothing and ear plugs, plus such emergency equipment as individual air packs.

Since March, the team has spent 40 hours a week in rigorous training preparing for the launch.

Each morning, nine men and their commander, Al Wozniak, exercise from one to two hours, building up their physical condition. The balance of the days are spent learning and practicing specialized rescue techniques.

For example, fully clad as if for an emergency, the men climb through a course at their training area that duplicates conditions they could encounter at the pad.

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Other training includes rescue operations involving the Mobile Launcher; operation of the carriers, and practice with self-contained breathing apparatus in a smoke-filled tunnel.

One highlight of the training session was a full dress rehearsal of a command module rescue.

For the test, three men substituted for the Apollo 10 crew, positioned in a command module simulator. On signal, the team removed the "astronauts" and brought them to safety in 1 minute, 40 seconds--a record breaking time.

Additional training includes extensive practice on the slide wire, and an "on station" position during the Countdown Demonstration Test this week.

On launch day the team arrives one hour before the astronaut crew enters the spacecraft. Thirty minutes before launch, they enter the carriers and prepare to ride out the launch or go into emergency action. By launch time, they have begun using regulated air supplies, and have checked ear plugs and communication earphones that protect their hearing from noise levels of 142 decibels at that point.

Only the astronauts inside their spacecraft are closer to the fire-spewing rocket than these men:

Roy Terry, operations commander, who is chief of the KSC Fire Training section; Al Wozniak, KSC team commander; and KSC firemen George Bidault, Rod Hobbs, Randy Marlow, Joe Morgan, Charles Mullis, Charles Short, Melton Thorne, Rex Yates, and Bill Killen.

Three medical technicians are supplied by the Military. For Apollo 10 they are Chief Master Sgt. James Armour, from Wilford Hall Hospital, Lackland AFB, Texas; Master Sgt. James Tanner, from Brooke Army Medical Center, Ft. Sam Houston, Texas; and Senior Master Sgt. William Churchill, from David Grant Hospital, Travis AFB, California.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-165-69
FOR RELEASE: Immediate

May 1, 1969

SEVERAL SPACEPORT CONTROL ROOMS SUPPORT APOLLO 10 COUNTDOWN DEMONSTRATION TEST

KENNEDY SPACE CENTER Fla. -- Approximately 750 persons working in five major control rooms at the Kennedy Space Center are coordinating the Apollo 10 Countdown Demonstration Test.

The areas include the Launch Control Center's Firing Room 3, Acceptance Checkout Equipment (ACE) Rooms 2 and 4 in the Manned Spacecraft Operations Building and the Operational Support Center, also known as the Data Display Room in the Central Instrumentation Facility.

An estimated 425-450 engineers and technicians -- of whom 80 per cent are Apollo launch vehicle stage contractors -- are stationed within Firing Room 3. They follow the mating and preliminary checkouts of the Saturn V in the Vehicle Assembly Building and monitor final prelaunch preparations conducted at Launch Pad B.

Two ACE stations, each with a 50-man complement, check out command service modules and lunar module spacecraft. ACE Station 2 is being used for the Command Service Module and No. 4 for the Lunar Module. About two-thirds of the work force in each room is composed of spacecraft contractors. The Command Service Module test conductor, C. A. Chauvin, and Lunar Module test conductor H. K. Widick supervise activities in their respective ACE rooms.

One hundred and forty persons work in the Operational Support Center in Room 307 of the Central Instrumentation Facility, including about 60 stage contractors and 50 KSC Launch Vehicle Operations personnel. The remainder are representatives from Design Engineering, the Apollo Program Office, Information Systems, Quality Control and the Marshall Space Flight Center Resident Office.

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The CIF Operational Support Center serves as a backup to selected firing room activities and provides additional mission rules monitoring capabilities for the stage contractors. When a mission rule is violated, the stage monitor in the CIF notifies the stage test conductor in the LCC who contacts the launch vehicle test conductor.

The Flight Controller Team Leader in the CIF is John Perkinson, of the Guidance and Control Branch, Launch Vehicle Operations. He coordinates real time emergency problems and interfacing with the Manned Spacecraft Center in Houston.

Conrad Nagel, the test coordinator, handles real time problems and equipment usage and displays in the CIF Operational Support Center.

Another control room is the Complex Control Center located in the Launch Control Center. Within the CCC, 50 persons representing two Spaceport Directorates and three contractors perform various launch pad support functions. The personnel are attached to the Technical Support and Installation Support Directorates, and contractors Bendix, Trans World Airlines and Technicolor, the latter being in charge of operating documentation and engineering cameras at the launch pad.

The CCC monitors high pressure gas systems, the air conditioning and Firex and water deluge systems on the mobile launcher, mobile service structure and propellant storage area. It also monitors all electrical power flowing to the launch pad.

Data processed in the CCC is sent to the Test Support Controller of the Technical Support Directorate, who is located in the firing room.

Dick Brantley is the Support Operations Manager for the CCC.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-165-69

FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Gordon W. Knight, an aerospace technologist in technical management at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Knight is assigned to the test planning office, Launch Operations Directorate. His office is responsible for developing and implementing launch mission rules during prelaunch checkout and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Knight is a 1957 graduate of the Citadel where he received a degree in electrical engineering. He was graduated from St. Andrews Parish High School, Charleston, South Carolina in 1953.

Knight is married to the former Glenda Campbell of Selma, Alabama. They now reside at 2741 Abbey Road, Winter Park, Florida.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-166-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Jerry R. Otwell, an aerospace technologist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Otwell is assigned to the quality assurance office, Launch Vehicle Operations Directorate. His office is responsible for quality engineering surveillance of two of the three Saturn V stages during prelaunch testing and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Otwell is a 1965 graduate of Alabama College, Montevallo, Alabama where he received a bachelor of science degree in mathematics. He was graduated from Hueytown, Alabama, High School in 1959.

Otwell is married to the former Patsy Turner of Hueytown. They now reside at 990 Diplomat Blvd., Cocoa Beach, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-167-69
FOR RELEASE: Immediate

May 14, 1969
May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Arthur F. Leslie, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Leslie is assigned to the space systems quality control office of the Spacecraft Operations Directorate. His office is responsible for quality control supervision of test and checkout of the Apollo Spacecraft during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeroautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Leslie joined NASA at the Kennedy Space Center in 1967. He was graduated from Murphy High School, Mobile, Alabama in 1947. He is married to the former Betty Stanfield of Rome, Georgia. They now reside at 544 S. Ridgewood Avenue, Daytona Beach, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-168-69

FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Kelly A. Fiorentino, assigned to Instrumentation Systems Division here, will have a key role in the launch of Apollo 10 scheduled for May 18.

As a member of the Launch Vehicle Operations Directorate, Fiorentino represents his division for all launch vehicle instrumentation during prelauch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A Cernan into orbit around the moon. Stafford and Cernan will fly to within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Fiorentino has been associated with U. S. missile and space programs since 1957. He graduated from Herkimer High School, Herkimer, New York and attended Utica College of Syracuse University.

He is married to the former Kay Francis Steverson of Bradenton, Fla. They now reside at 2295 Pineapple Place, Merrit Island, Fla.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-169-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Frank R. Penovich, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Penovich is deputy of the guidance and control systems branch of the Launch Vehicle Operations Directorate. His office is responsible for monitoring operations and providing technical advice to the branch chief regarding ground computers during checkout and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Penovich is a 1956 graduate of Vaoparaiso Technical Institute where he received a degree in electronic engineering. He was graduated from Horace Mann High School, Gary, Indiana.

Penevich is married to the former Joan Morris of Philadelphia, Pennsylvania. They now reside at 1435 Sunrise Drive, Merritt Island, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-170-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Darrell Eugene New, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

New is assigned to the Spacecraft Operations Directorate and as Spacecraft Test Conductor he is responsible for supervising all tests of the Lunar Module from its arrival at the center through launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing the Lunar Module, the craft which will later land two astronauts on the moon.

New joined NASA at the Kennedy Space Center in June 1966. He is a graduate of Eastern Kentucky University where he received a degree in physics. New was graduated from Livingston, Kentucky High School in 1962.

He is married to the former Flora Ellen Peek of Mt. Vernon, Kentucky. They now reside at Route #2, Titusville, Florida.

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KENNEDY SPACE CE , FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-171-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- C. A. Chauvin, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Chauvin is assigned to the Spacecraft Operations Directorate and as Spacecraft Test Conductor he is responsible for all operational aspects of testing the Command Module, Lunar Module, and the Service Module from their arrival at the Center through launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Chauvin is a 1956 graduate of Colorado State University where he received a degree in electrical engineering. He was graduated from St. Mary's High School, Albuquerque, New Mexico in 1952.

Chauvin joined NASA at the Kennedy Space Center in April 1966. He is married to the former Ramona Marie Barrow of Council Bluffs, Iowa. They now reside in Titusville, Fla.

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KENNEDY SPACE C[illegible], FLORIDA
NATIONAL AERONAUTICS AN[illegible]E ADMINISTRATION

news release

RELEASE NO: KSC-172-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Arthur L. Sawyer, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Sawyer is assigned to the electrical systems branch of the Launch Vehicle Operations Directorate. His office is responsible for providing technical advice and guidance to Saturn V rocket stage contractors during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Sawyer is a 1960 graduate of the University of Florida where he received a degree in electrical engineering. He was graduated from Gulf High School, New Port Richey, Florida.

Sawyer is married to the former Lise Tetreault of Montreal, Canada. They now reside at 122 Algonquin Terrace, Indian Harbor Beach, Fla.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-173-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Donald R. Jones, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Jones is assigned to the electrical systems branch of the Launch Vehicle Operations Directorate. His office is responsible for coordinating test and checkout operations of the Saturn V rocket's third stage (S-IVB) during prelaunch preparations and launch of Apollo Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Jones joined NASA in February 1963. He is a 1951 graduate of The Citadel where he earned a degree in physics. He was graduated from High School of Charleston, Charleston, South Carolina in 1947.

Jones is married to the former Phyllis McLeod of Charleston. They now reside at 589 Seminole Drive, Eau Gallie, Florida.

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KENNEDY SPACE CEN[TER] [FL]ORIDA 32899
NATIONAL AERONAUTICS AN[D] [SPA]CE ADMINISTRATION

news release

RELEASE NO: KSC-174-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- John C. Wilkinson, Jr., an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Wilkinson is assigned to the Launch Vehicle Operations Directorate. His office is responsible for the digital data acquisition system computer checkout equipment during prelaunch preparations and launch of Apollo/Saturn space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Wilkinson joined NASA at the Kennedy Space Center in June 1968. He is a graduate of Georgia Southern College, Statesboro, Ga., where he received a degree in physics. He was graduated from Hephzibah, Georgia High School in 1965.

Wilkinson is married to the former Donna Gail Turner of Waycross, Georgia. They now reside at Route #1, Titusville, Florida.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-175-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Jimmy V. Hawley, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Hawley is assigned to the Spacecraft Operations Directorate. He is one of three project engineers responsible for the overall performance of the Apollo Spacecraft test team during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Hawley joined NASA in December 1964. He is a 1960 graduate of North Carolina State College, Raleigh, where he received a degree in electrical engineering. He was graduated from Harding High School, Charlotte, N. C.

Hawley is married to the former Eugenia Patricia Scheder of Baltimore, Maryland. They now reside at 100 Melissa Drive, Titusville, Florida.

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KENNEDY SP.. CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-176-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Terry R. Mitchell, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Mitchell is assigned to the checkout automation and programming office of the Launch Vehicle Operations Directorate. His office is responsible for computer programs for the Saturn V rocket ground computer system and onboard guidance computer during prelaunch checkout and testing of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Mitchell joined NASA at the Kennedy Space Center in July 1967. He is a 1967 graduate of the University of Florida where he received degrees in radiation physics and industrial management. He was graduated from Ft. Lauderdale, Florida High School in 1963.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-177-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Eric E. Olseen, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Olseen is assigned to the electrical and control branch of the Spacecraft Operations Directorate. His office is responsible for test and checkout of the electrical power system on the Lunar Module during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Olseen joined NASA in August 1964. He is a graduate of the University of Minnesota where he received a degree in electrical engineering. He was graduated from John A. Johnson High School, St. Paul, Minnesota in 1941.

Olseen and his wife, Mildred, now reside at 540 Albatross Street, Merritt Island, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-178-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Robert J. DiVita a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

DiVita is assigned to the quality surveillance branch of the Launch Vehicle Operations Directorate. His office is responsible for assuring that quality requirements are met in test and checkout of the Saturn V rocket third stage (S-IVB) during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

DiVita was graduated from Tuley High School, Chicago, Illinois in 1942. He is married to the former Frances Teeter of Chicago. They now reside at 505 Cocoanut Drive, Titusville, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

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RELEASE NO: KSC-179-69

FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Steven H. Dodge, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Dodge is assigned to the telemetry branch of the Launch Vehicle Operations Directorate. His office is responsible for insuring proper performance of Saturn V launch vehicle telemetry systems during test, checkout and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Dodge is a 1965 graduate of the University of Florida where he received a degree in electrical engineering. He was graduated from Seabreeze High School, Daytona Beach, Florida. He now resides at 211 Caroline Street, Cape Canaveral, Florida.

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news release

#66

RELEASE NO: KSC-180-69

FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Richard H. Thornburg, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Thornburg is assigned to the test and integration branch of the Launch Operations Directorate. His office is responsible for planning, developing and producing Saturn V rocket integrated test and checkout procedures during pre-launch preparations and launch of Apollo/Saturn space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Thornburg joined NASA at the Kennedy Space Center in January 1967. He is a 1963 graduate of Ohio University where he earned a degree in electrical engineering. He was graduated from Lincoln High School, Canton, Ohio in 1958. Thornburg now resides at 211 Caroline Street, Cape Canaveral, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.3 #66

news release

RELEASE NO: KSC-181-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Paul M. Kolasky, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Kolasky is a senior project engineer assigned to the Spacecraft Operations Directorate. He is responsible for supervising engineering specialist engaged in preflight checkout of the Lunar Module during prelaunch preparations and launch of Apollo/Saturn V vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Kolasky joined NASA in September 1963. He is a graduate of Kent State University where he earned a degree in industrial technology. He was graduated from Newton Fall, Ohio High School in 1953.

Kolasky is married to the former Eve Fedeles of Newton Falls. They now reside at 300 Roosevelt Street, Satellite Beach, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-182-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- William O. Jewell, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Jewell is assigned to the electrical systems branch of the Launch Vehicle Operations Directorate. His office is responsible for prelaunch checkout of launch vehicle and ground support electrical systems during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing the Lunar Module, the craft which will later land two astronauts on the moon.

Jewell joined NASA in June 1960. He is a 1960 graduate of the University of Chattanooga where he received a degree in physics. He was graduated from McCallie School, Chattanooga.

Jewell is married to the former Carolyn Ann Barnes of Chattanooga. They now reside at 2455 Newfound Harbor Drive, Merritt Island, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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#166

news release

RELEASE NO: KSC-183-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Russell P. Clay, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Clay is assigned to the electrical systems branch of the Launch Vehicle Operations Directorate. His office is responsible for test and checkout of electrical systems for the S-IC (first) stage of the Saturn V rocket during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Clay is a 1950 graduate of Tennessee Technological University where he received a degree in electrical engineering. He was graduated from Smith County High School, Carthage, Tennessee.

Clay has been associated with the U. S. missile and space program since 1956.

He is married to the former Alice Jean Stone of Poole, Kentucky. They now reside at 1101 Greenwood Way, Cocoa, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-184-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Harold E. Perry, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Perry is assigned to the quality engineering staff of the Launch Vehicle Operations Directorate. His office is responsible for writing and reviewing plans and procedures for the Saturn V rocket systems during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two men on the moon.

Perry joined NASA in 1961. He attended McArthur, Ohio High School.

Perry is married to the former Doris Brown of Davin, West Virginia. They now reside at Route #2, Merritt Island, Florida.

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KENNEDY SPACE CENTER, FLORIDA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-185-69

FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Bascom W. Murrah III, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Murrah is assigned to the Spacecraft Operations Directorate. His office is responsible for the Apollo spacecraft crew equipment during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing the Lunar Module, the craft which will later land two astronauts on the moon.

Murrah joined NASA at the Kennedy Space Center in February 1968. He is a 1964 graduate of Georgia Institute of Technology where he received a degree in aerospace engineering. He was graduated from Glynn Academy, Brunswick, Georgia in 1955.

Murrah is married to the former Barbara Hasell of Miami, Florida. They now reside at 2682 Knox McRae Drive, Titusville, Florida.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-186-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Robert B. Sieck, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 sheduled for May 18.

Sieck, assigned to the Spacecraft Operations Directorate, is lead engineer for the Apollo Spacecraft engineering team during checkout, testing and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Sieck joined NASA in August 1964. He is a 1960 graduate of the University of Virginia where he received a degree in electrical engineering. He was graduated from Falls Church, Virginia High School in 1956.

Sieck is married to the former Nancy Cushing of Sanford, Florida. They now reside at 842 Hunter Road, Titusville, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A-3 #167

news release

RELEASE NO: KSC-187-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- James D. Ream, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Ream is assigned to the telecommunications branch of the Spacecraft Operations Directorate. His office is responsible for checkout and verification of Apollo spacecraft measurement and telemetry systems during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Ream joined NASA at the Kennedy Space Center in February 1966. He is a 1963 graduate of Virginia Polytechnic Institute where he received a degree in electrical engineering. He was graduated from Oscar Smith High School, Chesapeake, Virginia in 1959. Ream now resides at 1635 Saturn Street, Merritt Island, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2H.3
#67

news release

RELEASE NO: KSC-188-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- William R. Helms, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Helms is assigned to the Launch Vehicle Operations Directorate. His office is responsible for verifying the proper operation of the Saturn V rocket's measuring systems during prelaunch checkout and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Helms is a 1966 graduate of Florida State University where he received a degree in physics. He was graduated from Crestview High School, Crestview, Florida, in 1962.

Helms is married to the former Theresa Taylor of Jasper, Florida. They now reside at the Country Club Apartments, Merritt Island, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-189-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Dale E. Jansen, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Jansen is assigned to the Spacecraft Operations Directorate. His office is responsible for supervising quality control of space systems during prelaunch checkout and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Jansen joined NASA in 1962. He attended Leesburg High School, Leesburg, Florida. He is married to the former Jackie Rankin of Las Vegas, Nevada. They now reside at 4269 Plompton Drive, Eau Gallie, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-190-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- James E. Keck, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Keck is chief of the test requirements branch of the Launch Operations Directorate. His office is responsible for launch vehicle test requirements management during prelaunch checkout and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Keck is a 1949 graduate of the University of Florida where he received a degree in aerospace engineering. He was graduated from Landon High School, Jacksonville, Florida. Keck joined NASA at the Kennedy Space Center in March 1965. He and his wife Ethel now reside at 216 Bignonia Street, Melbourne, Florida.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-191-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Lynn A. Barnett, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Barnett is spacecraft test conductor assigned to the Spacecraft Operations Directorate. He is responsible for conducting testing and checkout of the Lunar Module during prelaunch preparations and launch of Apollo/ Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Barnett is a 1961 graduate of Southern Illinois University where he received a degree in mathematics. He was graduated from Equality High School, Equality, Illinois in 1954.

Barnett now resides at 265 Jacala Drive, Merritt Island, Florida.

- end -

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-192-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- James H. Slogar, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Slogar is assistant schedules and procedures manager assigned to the Launch Vehicle Operations Directorate. His office is responsible for developing major integrated test procedures for the Saturn V launch vehicle during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Slogar is a 1954 graduate of the United States Military Academy where he received a degree in military engineering. Slogar joined NASA at the Kennedy Space Center in February 1968.

He is married to the former Nancy Tierney of Haverstraw, New York. They now reside at 2840 Malibu Court, Titusville, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-193-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Henry F. Stewart, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Stewart is assigned to the Launch Vehicle Operations Directorate. His office is responsible for verifying the instrumentation systems for the Saturn V rocket's Instrument Unit during prelaunch checkout and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Stewart is a 1964 graduate of Florida State University where he received a bachelor of science degree in mathematics. He was graduated from Cocoa High School in 1958.

Stewart is married to the former Judith Ann Scherer of Cocoa. They now reside at 1301 Stetson Drive South, Cocoa, Florida.

- end -

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#67

KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-194-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Leroy Sherrer, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Sherrer is contractor technical manager assigned to the Launch Vehicle Operations Directorate. His office is responsible for providing technical advice and special planning for the Saturn V rocket first stage (S-IC) contractor during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission , designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Sherrer is a 1954 graduate of Florida State University where he received a degree in mathematics. He also graduated from the Universtiy of Houston where he earned a degree in mechanical engineering in 1958. He was graduated from Bay City, Texas High School in 1946.

Sherrer joined NASA in June 1963.

He is married to the former Quinton Moore of Tallahassee, Florida. They now reside at 3585 Alan Drive, Titusville, Fla.

- end -

KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-195-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla, -- John E. Malone, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Malone is assigned to the telecommunications branch of the Spacecraft Operations Directorate. His office is responsible for test and checkout of the Lunar Module instrumentations systems during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The Mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene a Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing the Lunar Module, the craft which will later land two astronauts on the moon.

Malone is a 1964 graduate of Tuskegee Institute, Tuskegee, Alabama, where he received a degree in electrical engineering. He was graduated from Cherokee, Alabama High School in 1959.

Malone joined NASA at the Kennedy Space Center in February 1965.

He is married to the former Constance McCrory of Chattanooga, Tennessee. They now reside at 722 Aurora Avenue, Cocoa, Florida.

- end -

PUBLIC INFORMATION OFFICE, COCOA BEACH - 783-7781, KSC - 867-2467

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-196-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- William J. Thompson, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Thompson is manager of the contract technical management office of the Launch Vehicle Operations Directorate. The office he manages is responsible for technical management of activities concerning the Saturn V rocket's Instrument Unit during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Admisnistration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Thompson is a 1959 graduate of Missouri School of Mine and Metallurgy where he received a degree in electrical engineering. He was graduated from Charleston, Missouri High School in 1950. He joined NASA in 1964.

Thompson is married to the former Paula Beasley of Charleston. They now reside at 465 Greenway Avenue, Satellite Beach, Florida.

- end -

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-197-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- James J. Hart, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Hart is chief of the test plans and launch rules integration staff of the Launch Vehicle Operations Directorate. As chief Hart is responsible for supervising the preparation of Saturn V rocket test and checkout plans and launch mission rules during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Hart is a 1958 graduate of Clemson University where he received a degree in electrical engineering. He was graduated from Rock Hill, South Carolina High School in 1951.

Hart has been associated with U. S. missile and space programs since 1959. He is married to the former Jane Spindle of Sherman, Texas. They now reside at 1407 Gleneagles Way, Rockledge, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-198
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla, -- Lowell C. Frazier, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Frazier is assigned to the test requirements branch of the Launch Operations Directorate. He serves as senior project engineer responsible for receiving, reviewing, coordinating and monitoring the test support requirements necessary to support Apollo/Saturn operations.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Frazier is a 1960 graduate of the University of Kentucky where he received a degree in electrical engineering. He received his masters degree from Florida State University in 1968. He was graduated from Corbin, Kentucky High School in 1950.

Frazier joined NASA at the Kennedy Space Center in April 1966. He is married to the former Marie Broyles of Somerset, Kentucky. They now reside at 2337 Lakeview Drive, Eau Gallie, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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#67

news release

RELEASE NO: KSC-199-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Stanley J. Jevitt, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Jevitt is assigned to the test planning branch of the Launch Operations Directorate. His office is responsible for test planning and scheduling during prelaunch checkout operations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Jevitt is a 1942 graduate of the University of Alabama where he received a degree in aeronautical engineering. He was graduated from Perth, New York Central High School in 1938. He joined NASA at the Kennedy Space Center in August 1966.

Jevitt is married to the former Dorothy Ann Kubler of Indianapolis, Indiana. They now reside at 465 North Shore Drive, Cocoa Beach, Fla.

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2A.3
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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-200-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Gray W. Chunn, a quality control specialist at the Nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Chunn is assigned to the Spacecraft Operations Directorate. His office is responsible for providing guidance in the quality control for the Apollo Spacecraft during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Chunn was graduated from Spencer, North Carolina High School in 1951. He has been associated with U. S. missile and space programs since 1957.

Chunn is married to the former Mary Ann Broadway of Salisbury, North Carolina. They now reside at 1884 McKinley Avenue, Eau Gallie, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-201-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Philip E. Hooper, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Hooper is assigned to the spacecraft surveillance division of the Spacecraft Operations Directorate. His office is responsible for providing guidance in the quality control for the Lunar Module during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Hooper was graduated from White Plains, New York High School in 1954. Hooper joined NASA in 1964.

He is married to the former Ruby Haynes of St. Petersburg, Florida. They now reside at 948 Baywood Lane, Rockledge, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-202-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla, -- Herman K. Widick, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Widick is chief spacecraft test conductor assigned to the Spacecraft Operations Directorate. He is responsible for all major tests of the Lunar Module during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A, Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Widick is a 1954 graduate of the University of Kansas where he received a degree in engineering physics. He was graduated from Atchinson Kansas High School in 1949. Widick joined NASA in June 1964.

He is married to the former Kathleen Annette McKee of Pittsburg, Kansas. They now reside at 490 Naish Avenue, Cocoa Beach, Fla.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-203-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Alvie E. Yarbrough, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Yarbrough is a section chief in the quality surveillance division of the Launch Vehicle Operations Directorate. His office is responsible for providing guidance in the quality control for the first stage (S-IC) of the Saturn V rocket during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing the Lunar Module, the craft which will later land two astronauts on the moon.

Yarbrough has been associated with U. S. Missile and space programs since 1957.

He was graduated from East Limestone High School, Athens, Alabama in 1947.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-204-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- William L. Beeker, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Beeker is assigned to the mechanical and site utilization branch of the Spacecraft Operations Directorate. He is lead engineer responsible for mechanical and structural systems for the Command and Service Modules during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Beeker is a 1960 graduate of the University of Alabama where he received a degree in aeronautical engineering. He was graduated from West End High School, Birmingham, Ala. Beeker joined NASA in 1963.

He is married to the former Helen Crump of Birmingham. They now reside at 2711 Sherwood Dr., Titusville, Fla.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-205-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- James K. Davidson, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Davidson is deputy chief of the electrical systems branch of the Launch Vehicle Operations Directorate. His office is responsible for test and checkout of Saturn V launch vehicle and ground support electrical systems during prelaunch preparations and launch of Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Davidson is a 1949 graduate of Mississippi State College where he received a degree in electrical engineering. He was graduated from St. Aloysius High School, Vickburg, Mississippi in 1945.

Davidson is married to the former Esther Lankford of Vicksburg. They now reside at 116 Dozier Avenue, Titusville, Florida.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-206-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Douglas N. McLain, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

McLain is assigned to the Spacecraft Operations Directorate. His office is responsible for providing guidance in the quality control for the Apollo Spacecraft during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Appllo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

McLain attended Murphy High School, Mobile, Alabama.

He is married to the former Wynnemarie Collins of Ardmore, Oklahoma. They now reside at 245 Antigua Drive, Merritt Island, Florida.

- end -

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-207-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Lee Roy Bridgeman, a quality control specialist at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Bridgeman is assigned to the Spacecraft Operations Directorate. His office is responsible for providing guidance in the quality control for the Apollo Spacecraft during prelaunch preparations and launch of Apollo/Saturn V space vehicles.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Bridgeman has been associated with the U. S. space program since 1962.

He was graduated from Lanier Senior High School Macon, Georgia in 1952. He is married to the former Gwen Hall of Macon. They now reside at 1170 South Tropical Trail, Merritt Island, Florida.

- end -

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-208-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Warren Kent Lackie, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Lackie is a propulsion systems engineer assigned to the Spacecraft Operations Directorate. He is responsible for authorizing and evaluating the Apollo Command and Service Module propulsion system checkout and fuel loading procedures during prelaunch preparations and launch of the Apollo/Saturn V space vehicle.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronatus Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Lackie is a 1966 graduate of Florida Institute of Technology where he became the first student in the U. S. to be granted a bachelor of science degree in space technology. He was graduated from Richfield High School, Richfield, Minnesota in 1961.

Lackey is married to the former Pamela Ann Buhta of Richfield. They now reside at 2270 Floridiane Drive, Eau Gallie, Florida.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-209-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Allan R. Goldenberg, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Goldenberg is assigned to the Spacecraft Operations Directorate. He is responsible for coordinating the activities of spacecraft systems engineers during prelaunch checkout and launch of the Apollo/Saturn V space vehicle.

The mission designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Goldenberg is a 1963 graduate of the University of Miami where he received a degree in electrical engineering. He was graduated from Classical High School, Worcester, Massachusetts. He joined NASA in November 1964.

Goldenberg is married to the former Mardi Jacobson of Miami. They now reside at 765 Montego Bay Dr., Merritt Island, Fla.

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2A-3
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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-229-69
FOR RELEASE: Immediate

May 14, 1969

KENNEDY SPACE CENTER, Fla. -- Ann Dudley Montgomery, an engineer at the nation's Spaceport, will have a key role in the launch of Apollo 10 scheduled for May 18.

Mrs. Montgomery is assigned to the Spacecraft Operations Directorate. She is responsible for astronaut crew personal and operational equipment for the Lunar Module and Command Module, including food, camera equipment, books, medical supplies and post-landing survival equipment.

The mission, designated Apollo 10 by the National Aeronautics and Space Administration, is planned to take astronauts Thomas P. Stafford, John W. Young and Eugene A. Cernan into orbit around the moon. Stafford and Cernan will fly within ten miles of the moon's surface in testing of the Lunar Module, the craft which will later land two astronauts on the moon.

Mrs. Montgomery is a Phi Beta Kappa honor graduate of the University of Florida where she received a degree in mathematics in 1968. She was graduated from Eau Gallie, Florida High School in 1964. She joined NASA at the Kennedy Space Center in June 1968.

Mrs. Montgomery is married to Brian Odell Montgomery of Cocoa, Florida. They now reside at 3645 Barna Avenue, Titusville, Florida.

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#68

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-270-69
FOR RELEASE: Immediate

May 8, 1969

APOLLO/SATURN V TELEMETERS 3,858 MEASUREMENTS TO GROUND

KENNEDY SPACE CENTER, Fla. - - The driver of a car, a locomotive engineer, a ship captain, an airline pilot, and the Apollo 10 astronauts all require information about how their vehicles are performing.

Fuel and temperature guages, battery charge indicator and a speedometer give motorists the basic facts they need.

The cockpit of a commercial airliner is filled with instruments measuring the plane's performance.

Only a limited number of critical measurements will be displayed on control panels in the Apollo 10 spacecraft, but 3,858 measurements of rocket and spacecraft performance will be sent by telemetry to monitoring engineers and technicians on the ground.

Like the measuring devices on a car, train, boat or plane, those of Apollo 10 produce electrical currents that may mean a fuel tank is half-empty or the coolant in a radiator is nearing its boiling point.

Sensors installed at strategic locations also measure pressures, acceleration, vibration, current flow and voltage, valve and switch positions onboard the three rocket stages, instrument unit, and spacecraft.

- more -

Thermocouples measure temperatures. Diaphrams linked to potentiometers measure pressures. Devices known as accelerometers signal the rate of change in velocity. Paddlewheel and propeller-like devices measure the flow of propellants. Guages inside the propellant tanks record the amount of liquid remaining. Tiny diodes and thermistors signal how much of the tank contains liquid and how much is vapor.

During the countdown and launch the telemetry is transmitted to the Central Instrumentation Facility at Kennedy Space Center. There it is processed through a computer system that sorts out the readings from all the measuring devices, identifies them, and sends them over special communication circuits to data displays and recorders in other rooms in the building, to the Launch Control Center at Complex 39, to the ACE stations at the Manned Spacecraft Operations Building, and to the NASA centers at Huntsville, Ala., and Houston, Texas.

The total of 3,858 measurements taken in flight includes 672 from the first stage rocket, 986 from the second, 386 from the third. The Saturn V Instrument Unit provides 298 measurements. On the Apollo spacecraft 322 measurements are made in the command/service modules and 1,194 from the lunar module.

In addition to providing immediate facts on the space vehicle performance, the telemetry data are recorded for thorough post-mission analysis.

The Telemetric Systems Division is headed by T. P. Hershey. The division is a part of the Information Systems Directorate under Karl Sendler.

- end -

KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-272-69
FOR RELEASE: Immediate

May 5, 1969

KENYAN VICE PRESIDENT TOURS SPACEPORT

KENNEDY SPACE CENTER, Fla. -- Daniel T. arap Moi, vice president of Kenya, his wife and a party of eight toured the nation's Spaceport here Monday.

Moi and his party toured KSC's Unmanned Launch Operations facilities on Cape Kennedy where they viewed a replica of the Intelsat communications satellite which will soon bring the first satellite communications service to the nations around the Indian Ocean basin.

The group from the East African nation then toured the Merritt Island Spaceport where they were given a briefing and orientation on Project Apollo and its goal of a manned lunar landing and inspected the massive facilities of Apollo Launch Complex 39.

In the Vehicle Assembly Building, they inspected the Apollo 11 space vehicle which is to send American astronauts toward a manned lunar landing during July.

Visible on Pad B was the Apollo 10, scheduled for launch on May 18 in a dress rehearsal of the July lunar landing.

In the Kenyan party in addition to the Vice President and Mrs. Moi were Leonard Oliver Kibing, Kenyan Ambassador to the United States; Dawson Mlamba, permanent secretary, Ministry of Agriculture; Charles Dobuchi, Undersecretary, Ministry for Planning and Development; Joseph Gachui, Senior Assistant Secretary, Ministry of Foreign Affairs.

Stephen Muriithi, Deputy Director for Foreign Intelligence; George Kimuto, Special Branch, Ministry for Home Affairs; I. K. A. Salaet, private secretary to the Vice President; Miss G. J. Chemnjor, social secretary to Mrs. Moi, and Martin Kinanjui, Ministry for Home Affairs.

- more -

John Neilon, KSC Deputy Director for Unmanned Launch Operations, represented KSC Director Dr. Kurt H. Debus and participated in the briefing for the delegation from the young African nation.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-274-69
FOR RELEASE: 9:00 a.m.

May 7, 1969

MANNED SPACE STATION AND SPACE SHUTTLE TASK GROUPS ESTABLISHED

WASHINGTON, D. C. -- The National Aeronautics and Space Administration has established task groups to handle its efforts on the Manned Space Station and the Space Shuttle.

The Space Station is a flexible centralized base of support permanently operating in earth orbit. The Space Shuttle is a system of low cost transportation from the earth's surface to orbit and return. It will service the Space Station and carry out other important space missions at greatly reduced operating costs.

The Space Shuttle effort effort is headed by Dr. George E. Mueller, in addition to his responsibilities as NASA Associate Administrator for Manned Space Flight. Charles W. Mathews, Deputy Associate Administrator for Manned Space Flight, heads the Space Station effort, in addition to his present duties.

Reporting to Mueller is a Space Shuttle Task Group under LeRoy E. Day, former Director of Apollo Test. The group will develop NASA material for a report on Space Shuttles to the President's Space Task Group by June 15. NASA will work directly with the Department of Defense to provide an integrated report serving as the basis for the President's Task Group recommendations on Space Shuttles.

Reporting to Mathews will be Frank Borman, former Deputy Director of Flight Crew Systems at the Manned Spacecraft Center. As Field Director for the Space Station effort, Borman will be responsible for integration of study efforts between centers and other elements of NASA. Borman will be located at the Manned Spacecraft Center, Houston. Information already developed in connection with a request for proposals from industry on the Space Station program will be utilized in providing material on a Space Station to the President's Task Group.

- more -

NASA has requested these proposals from industry for design and planning studies of a Space Station program for the mid-1970's. This contracted effort will encompass the Space Station, its uses, and its operations, as well as the conceptual design of a larger space base and an advanced shuttle spacecraft for logistics support of the Space Station. Two contractors will be selected to perform the 11-month studies. One of the contracts will be managed by the Manned Spacecraft Center, Houston, and the other by the Marshall Space Flight Center, Alabama.

Day has served as Director, Apollo Test, OMSF, since July 1966. He joined the NASA Gemini Program prior to his Apollo Program office assignment.

Day was born in Doswell, Va., and graduated with a BS degree in Aeronautical Engineering from the Georgia Institute of Technology. He received his MS degree in Engineering from the University of California at Los Angeles. In 1959, Day was awarded a Sloan Fellowship for a year's graduate study at Massachusetts Institute of Technology (MIT), resulting in an MS degree in Industrial Management.

Before joining NASA, Day was the Deputy Head, Missile Program Department at the U. S. Naval Missile Center, Pt. Mugu, Calif.

He is married to the former Mary E. Hornbuckle, The Days and their children live in Rockville, Md.

Borman has been Deputy Director, Flight Crew Operations, MSC since January.

Prior to the historical Apollo 8 flight around the Moon in December, Borman, a USAF Colonel, performed a variety of special duties, including backup command pilot for the Gemini 4 flight and member of the Apollo 204 Review Board.

As command pilot of the history-making Gemini 7 mission, launched Dec. 4, 1965, he participated in establishing a number of space "firsts" -- among which are the longest manned space flight (330 hours and 35 minutes) and the first rendezvous of two manned maneuverable spacecraft as Gemini 7 was joined in orbit by Gemini 6. He was selected as an astronaut by NASA in September 1962.

Borman entered the Air Force after graduation from the U. S. Military Academy at West Point and received his pilot training at Williams Air Force Base, Arizona.

From 1951 to 1956, he was assigned to various fighter squadrons in the United States and the Philippines. He became an instructor of thermodynamics and fluid mechanics at the USMA in 1957, and subsequently attended the USAF Aerospace Research Pilots School from which he graduated in 1960. He remained there as an instructor until 1962.

Borman was born March 14, 1928, in Gary, Indiana. He grew up in Tucson, Arizona. He received a BS degree from the USMA in 1950 and an MS degree in Aeronautical Engineering from the California Institute of Technology, Pasadena, in 1957.

He is married to the former Susan Bugbee of Tucson. They have two children, Fredrick and Edwin.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-277-69
FOR RELEASE: Immediate

May 8, 1969

SPACEPORT ENGINEER TRACES ROCKET CAREER FROM 1950

KENNEDY SPACE CENTER, Fla. -- For a man who had no thoughts about going into the rocketry business, Grady Williams' career has moved hand-in-hand with 20 years of aerospace progress.

Williams, now Deputy Director of Design Engineering at the Kennedy Space Center, began his rocketry career where much of the U. S. effort began -- White Sands, New Mexico.

"I spent about a year teaching design engineering at Auburn University after graduation," Williams explained, "trying to decide what type of work to pursue. Then General Electric offered me a job at White Sands, and I accepted."

He admits that the offer was the first time he had even given a thought to being a rocket engineer.

General Electric was the prime contractor at the test facility, supporting the Hermes II project, an early military rocket program. There, in 1950 as a fledging electrical design engineer, Williams participated in his first rocket firing. He remembers it as being "intriguing, exciting, fascinating."

Among the space pioneers Williams met and worked with at White Sands were the "Operation Paperclip" scientists, who came to America at the close of World War II to work for the U. S. Army's rocket program.

Dr. Kurt H. Debus, KSC Director; Dr. Wernher von Braun, Director of the Marshall Space Flight Center, and Karl Sendler, KSC Director of Information Systems were a few of the space scientists there. Williams was assigned to work with Sendler, and credits him with having had the greatest influence on his professional career.

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"Of course, many people have helped and guided me," Williams said, "but working every day with Karl was the greatest thing that could have happened to me."

"Karl really knew his business and was more than eager to share his knowledge with me," Williams added. "Those early years were the beginning of a long and lasting friendship."

Williams continued working with Sendler's sections, leaving General Electric and moving with the firing team to the Army's Guided Missile Development Group in 1951. The Army Group was located at the Redstone Arsenal in Alabama.

In 1952 Williams was promoted to chief of the Measuring Section, Missile Firing Laboratory, headed by Dr. Debus, and continued working closely with the pioneer launch team.

"It was a very close-knit group," Williams remembers. "We all knew what the others were thinking and doing. That team spirit is probably one of the main reasons for the success of our early space efforts."

When the Missile Firing Laboratory transferred to Cape Kennedy in 1953, Williams also came, holding the position of Measuring Section chief until 1958. Then he was promoted to deputy chief of the Electronic, Measuring and Tracking Office at the newly-formed NASA Launch Operations Center.

Since then, Williams' duties and responsibilities have steadily grown in direct proportion to the increase of NASA's space program. Today, he acts for the Director of KSC Design Engineering with responsibilities for the design and modification of ground support equipment, structures and facilities for all NASA launch operations and support elements at KSC.

With three exceptions, Williams has been in the blockhouse for all launches directed by Dr. Debus since the last V-2. What does this space pioneer see as the future of space technology?

"I am firmly convinced that greater advances in aerospace technology are inevitable," he stated. "We are facing new and greater fronts in space. New technology such as laser development must be advanced. Zero-G activities must be explored.

"There is still so much ahead, so much to be done. I believe America's efforts in space keep us busy, teach us -- as Americans -- how to live better with each other. And we Americans -- as citizens of the world -- are learning how to live better with other world citizens.

"If I had it to do all over again, I'd change only one thing. I'd eliminate that one year of indecision trying to decide what to do with my life. This is the most satisfying work possible."

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

#68

news release

RELEASE NO: KSC-278-69
FOR RELEASE: Immediate

May 8, 1969

SUMMER EMPLOYMENT PROGRAM LARGEST IN SPACEPORT'S HISTORY

KENNEDY SPACE CENTER, Fla. -- The Spaceport's 1969 Summer employment program will be the largest in its five-year history, reports Nat Pilate, KSC Summer Employment Coordinator.

Pilate said that 73 aides, plus 40 to 50 regular summer employees, are expected to join KSC.

The 73 summer aides are hired as part of the 1969 Federal Summer Employment Program for Youth. The others come in through a competitive Civil Service examination.

The 1969 Program for Youth replaced the Youth Opportunity Campaign, but is identical in requirements and operations. High school and some college students from Brevard County are selected, based on such criteria as financial and educational needs. They are generally assigned to positions as clerks, messengers and engineering aides.

The regular summer employees come from college faculties or graduate and undergraduate student ranks. They are assigned as advanced trainees, researchers, and assistants. Men and women from all over the country are eligible to compete for these positions.

"This is a great program for the Center, as well as for the participants," Pilate stated. "It's an excellent recruiting instrument, and provides KSC with good services from these people." Many summer employees -- both aides and regulars -- have gone on to full time jobs with NASA and contractors here.

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The aides will also continue some classroom training during the summer. They attend classes in the training auditorium two hours a week, learning office procedures and practices, the Government filing system and personal money management. Classes are conducted by either KSC instructors or outside lecturers in specialized fields.

Supervisors of assigned summer aides participate in workshops prior to the program. This helps supervisors to understand how the program works and the type of jobs it involves.

Since the beginning of the summer job program five years ago, the Spaceport has been an active participant. At the close of the 1967 program KSC received a letter of commendation from Vice President Hubert H. Humphrey, praising the Center's outstanding leadership in the program.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: 292-69

FOR RELEASE: May 26, 1969

MIDSHIPMEN TOUR SPACEPORT

KENNEDY SPACE CENTER, Fla. -- Midshipmen from the Massachusetts Maritime Academy came ashore at Port Canaveral today and set a course for a visit to the nation's major launch facilities.

About 200 middies from the training ship "Bay State" toured the Kennedy Space Center where manned lunar landing vehicles are being assembled, checked out and launched, and Cape Kennedy, where unmanned exploration missions are launched.

The "Bay State", training vessel for the academy located at Buzzards Bay, Mass., arrived at Port Canaveral Saturday. It will remain until Tuesday.

The midshipmen viewed the Apollo 11 space vehicle on its launch pad at Launch Complex 39. Set for a July launch, Apollo 11 will be the first attempt to land two astronauts on the moon. The visitors also saw Apollo 12, another moon landing space vehicle, taking shape in the Spaceport's Vehicle Assembly Building.

On Cape Kennedy the midshipmen visited landmark sites like Launch Complex 19 where the two-man Gemini missions were launched; Pad 14, site of the one-man Mercury spacecraft launchings, and Pad 17, where weather, communications and other scientific satellites are launched by NASA.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-293-69
FOR RELEASE: Immediate

May 26, 1969

KSC LAUNCH DIRECTOR ROCCO PETRONE RECEIVES HONORARY DOCTOR'S DEGREE

KENNEDY SPACE CENTER, Fla. -- Rocco A. Petrone, Director of Launch Operations at the Kennedy Space Center, has been awarded an Honorary Doctor of Science Degree from Rollins College, Winter Park, Fla.

In commencement services Sunday, Rollins President Hugh F. McKean said in conferring the degree that Petrone had made "significant contributions to the development of America's exploration and utilization of space."

Petrone is responsible for the management and technical direction of preflight operation and integration, test, checkout and launch of all space vehicles, both unmanned and manned, for KSC.

Prior to assuming his present position he was Apollo Program Manager for the Space Center.

He graduated from the U. S. Military Academy in 1946, received a Master's Degree in Mechanical Engineering from the Massachusetts Institute of Technology in 1951 and earned a Professional Engineering Degree in 1952. He is a member of the Scientific Honor Fraternity, Sigma Xi.

His career in rocket development began in 1952 at the Army's Redstone Arsenal, Huntsville, Alabama, where he participated in the Redstone Program which developed this Nation's first ballistic missile.

Petrone was in the blockhouse at Cape Canaveral when the first Redstone launching took place in August, 1953.

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In the commencement address, Petrone told the graduates: "We are ready for the next undertaking -- the landing of men of the lunar surface.

"It is at once incredible and reassuring to realize that what man has dreamed of for countless centuries is within the grasp of a nation of free people who have made all of this possible in the interest of knowledge and peace."

With the advent of the space age, he said, mankind has been propelled overnight into a new era that will have far-reaching and profound impact upon generations still unborn.

Petrone said the implications of the application of communications satellites alone are enormous, "for if men can communicate, if they can look into one another's backyards, so to speak, if they can share their cultures, it will become increasingly difficult for demagogues to persuade them that their brothers are their enemies."

By exploring space, he added, "men have gained new perspective of life on Earth and we have won new confidence in the talents with which man has been endowed."

Petrone said that by looking outward and acquiring a new sense of boundless frontiers, man may break the Earth free from the cycle of war and peace.

"One by one, these physical barriers have fallen as man has opened his mind and dared to dream. Other barriers -- both physical and mental -- will also fall as some men continue to dream 'the impossible dream'."

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KSC news release

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-294-69
FOR RELEASE: Immediate

May 26, 1969

RECORD REQUESTS FOR NASA TEACHERS' KITS

KENNEDY SPACE CENTER, Fla. - - During April, teachers from 45 States, Canada, Puerto Rico and Europe requested a record-breaking number of teachers' kits from NASA Educational Programs at the Spaceport.

William D. Nixon, acting chief of the office, reported that 626 requests were filled in April. This followed a steady increase since the historic lunar flight of Apollo 8 in December, 1968.

"Before Apollo 8, we were filling about 80 requests a month," Nixon said.

Teachers' kits contain materials selected for use in either elementary or secondary school classes. There are approximately 30 items in each kit, including fact sheets, space science materials, an aerospace bibliography and information concerning Spaceport student tours.

Approximately 65 percent of the kits requested last month were from elementary school teachers. The highest number of requests--288--came from Florida schools. New York teachers requested 100, the second highest number. Ten requests came from Canada, five from Puerto Rico and 18 from Europe.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-295-69
FOR RELEASE: Immediate

May 26, 1969

APOLLO/SATURN V MOCK-UP PAVED WAY FOR APOLLO 10 LAUNCH

KENNEDY SPACE CENTER, Fla. -- Three years ago what may rank as history's largest "mock-up" paved the way for Apollo 10's successful journey to the vicinity of the Moon.

On May 25, 1966, a test vehicle known as AS-500F was rolled out of the Vehicle Assembly Building at KSC's Launch Complex 39. It was exactly the same shape and weight as the flight versions of the Apollo/Saturn V that followed. Except for engines, 500F contained all the tankage, lines, electrical systems and other components needed to verify the then untested launch facilities and equipment at Launch Complex 39.

Erection of the 500F began on January 28, 1966, in the High Bay 1 of the VAB. All three stages of the Saturn V rocket were completely erected by March 29. On May 2 a dummy Apollo spacecraft was placed atop the rocket.

On May 25, after three weeks of combined electrical tests in the VAB, the fully assembled 500F was ready for movement to Pad A, some three and one-half miles distant.

At a signal from Dr. Robert Seamans, then the Deputy NASA Administrator, the giant Transporter positioned under the Mobile Launcher on which the 500F had been erected slowly emerged from the VAB. To add to the drama, it was exactly five years to the day after the late President John F. Kennedy's announcement of the goal to land men on the Moon within the decade.

After the historic roll-out of the 363-foot tall dummy space vehicle, extensive testing at the launch pad paved the way for the first Apollo/Saturn V launch on November 9, 1967. Since then, four additional Apollo/Saturn V launches from LC-39 have been successfully accomplished exactly on time, including Apollo 8 and Apollo 10 which have sent men into orbit about the Moon.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-296-69
FOR RELEASE: Immediate

May 27, 1969

SPACEPORT MARKS EIGHTH ANNIVERSARY OF LUNAR LANDING ANNOUNCEMENT

KENNEDY SPACE CENTER, Fla. -- Eight years ago, on May 25, 1961, President John F. Kennedy presented his second State of the Union message to Congress.

In his address, President Kennedy requested a national goal of landing men on the moon before the end of this decade. Speaking of America's potential role in space, the President said,

"Now is the time to take longer strides--time for a great American enterprise--time for this Nation to take a clearly leading role in space achievement which in many ways may hold the key to our future on Earth...

"I believe that this Nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth..."

With that statement, manned space programs became a national goal, one that has been sustained over the years by the Congress, the American people and Presidents Lyndon B. Johnson and Richard M. Nixon.

The new impetus and new timetable for the space venture expanded the scope and increased the pace of NASA's program. A new rocket system powerful enough to land men on the moon and return them to earth had to be developed. Spacecraft that would carry the men to and from earth needed to be designed. A launching site for the new program had to be surveyed, designed, planned and developed. To fulfill the national dream of a manned lunar landing, these major pacing items were completed, tested and proved operational within a short decade's time.

Concurrent with developing the new Apollo program, NASA undertook the first manned orbital flights of Project Mercury. During 1962 and 1963, astronauts John Glenn, Scott Carpenter, Walter Schirra and Gordon Cooper successfully orbited the earth.

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Ten two-man Gemini flights, the first flown by astronauts Virgil Grissom and John W. Young on March 23, 1965, followed and proved that man could function effectively during extended space missions, testing techniques essential to the Apollo program.

Following Mercury and Gemini, three highly successful manned Apollo/Saturn V moon vehicles have been launched by the Kennedy Space Center in less than a year.

The scheduled July lunar touchdown of Apollo 11 will be the culmination of the "longer strides" envisioned in 1961.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-297-69
FOR RELEASE: Immediate

May 29, 1969

SPACEPORT UNIFORM CONTRACT GOES TO ST. PETERSBURG FIRM

KENNEDY SPACE CENTER, Fla.-- Floridian Uniform Rental, 2130 13th Avenue, St. Petersburg, Fla., has been awarded a $118,040 contract for rental and laundry of contractor frocks and caps used in clean-room environments at the Spaceport.

KSC is the National Aeronautics and Space Administration's major launch facility in NASA's program of space exploration.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-298-69
FOR RELEASE: Immediate

May 29, 1969

CALIFORNIA CONCERN GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.-- The John F. Kennedy Space Center has awarded a $131,200 contract to Data Memory Incorporated, Mountain View, California, for a television disc recorder for display of computer data in support of Saturn vehicle launches.

The space center is the major launch facility in the National Aeronautics and Space Administration's space exploration program.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-299-69
FOR RELEASE: Immediate

May 29, 1969

SPACEPORT AWARDS CONTRACT TO AMPEX

KENNEDY SPACE CENTER, Fla.-- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $222,169 contract to Ampex Corporation, 401 Broadway, Redwood City, California.

The contract provides for maintenance and repair services for government-owned Ampex equipment. It runs from May 8, 1969, through May 7, 1970.

The space center is the chief launch facility in NASA's program of manned and unmanned space exploration.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-300-69

FOR RELEASE: Immediate

May 29, 1969

ORLANDO CONCERN GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.-- The John F. Kennedy Space Center has awarded a $26,272 contract to E D P Corporation, 1[illegible]00 N. Mills Avenue, Orlando, Florida, for an events display board to be used in launch operations.

The board is required for mission evaluation by the KSC Technical Support Operations Branch in all unmanned launches.

The space center is chief launch facility in the National Aeronautics and Space Administration's program of space exploration.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news . elease

RELEASE NO: KSC-301-69
FOR RELEASE: Immediate

May 27, 1969

FLIGHT DATA INDICATES SATISFACTORY PERFORMANCE ON APOLLO 10 LAUNCH VEHICLE

NASA's Marshall Space Flight Center reports that early engineering evaluation of flight data indicates that Saturn V vehicle AS-505 performed satisfactorily. All major flight and test objectives were met.

AS-505 lifted off on time May 18 to start Apollo 10 on its historic trip to the moon. All stages and instrument unit functioned as expected. The third stage placed itself and the spacecraft into earth parking orbit just three tenths of a second later than planned.

The Saturn V, with spacecraft in place, stands 363 feet tall and weighs more than six million pounds at liftoff, developing 7.6 million pounds thrust.

Engineers are still searching the data for a clue to the vibrations reported by astronauts during third stage burns. Data from the flight which has been studied has not shown levels of vibrations that should cause the astronauts to express concern. The vibrations had no effect on vehicle performance or on the overall mission.

The astronauts reported low frequency longitudinal and lateral vibrations, primarily during the second burn that propelled the spacecraft from earth parking orbit onto the trajectory to the moon.

About 4 minutes 31 seconds into the translunar injection burn, the crew reported a higher frequency vibration superimposing on the low frequency vibration and continuing through the remainder of the burn.

Data examination continues but to date there has been no evidence found to substantiate the observations of the crew regarding the severity of the vibrations.

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First burn data showed 17 to 19 Hertz oscillations in the engine gimbal block with a maximum amplitude of plus and minus one-quarter "g" at 624 seconds after launch.

All accelerometer outputs in the third stage and instrument unit indicate amplitudes less than one-tenth "g" throughout the second burn. The NASA-Manned Spacecraft Center reported similar results from the spacecraft but noted that the 15 to 16 Hertz vibrations would be amplified by a factor of two by the astronauts' couches.

The third stage reignited 2.2 seconds later than planned for the translunar injection burn. Insertion into trajectory to the moon came 0.9 seconds later than planned.

Longitudinal oscillations (pogo effect) noted on the second stages of two previous Saturn V vehicles were eliminated on this flight by cutting off the center engine early, shortly before the oscillations were expected to begin.

Stage performance figures, with nominal figures in parentheses, were:

First stage: Cutoff 161.62 seconds (160.21); altitude 35.2 nautical miles (35.5); range 50.5 n.m. (49.3); and velocity 5345 knots (5322.7).

Second stage: cutoff 552.63 seconds (554.14); altitude 101.1 n.m. (101.7); range 883.9 n.m. (889); velocity 13,395 knots (13,421).

Third stage (first burn); cutoff 713.76 seconds (713.48); altitude 100.7 by 100 n.m. (100.4 by 100.1); orbit period 88.209 minutes (88.204); and velocity 15,133.5 knots (15,133.4).

The third stage second burn placed the spacecraft onto a trajectory so accurate that early midcourse correction was unnecessary. The stage then placed itself into solar orbit through a "slingshot" trajectory maneuver.

In this maneuver, the stage misses the moon but comes near enough to make use of the moon's gravity to increase the speed of the stage and fling it into solar orbit.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-302-69

FOR RELEASE: Immediate

May 29, 1969

DENVER COMPANY AWARDED KSC CONTRACT

KENNEDY SPACE CENTER, Fla.-- The John F. Kennedy Space Center has awarded a $47,789 contract to Hathaway Instruments, Inc., 5250 East Evans Avenue, Denver, Colorado, for a trasient recorder required to monitor power lines in the Spaceport's Central Instrumentation building.

The Spaceport is the National Aeronautics and Space Administration's major launch facility in the U. S. program to land men on the moon and in the program of unmanned exploration of space.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-303-69
FOR RELEASE: Immediate

May 29, 1969

TWO CALIFORNIA FIRMS GET KSC CONTRACTS

KENNEDY SPACE CENTER, Fla.-- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded materials contracts to two North Hollywood, California, firms.

Under the contracts, Allan Aircraft Supply Company, 11643 Vanowen Street, will supply $329,978 worth of fittings and parts for pressure and fluid connections required for ground support equipment used in space launches at the Spaceport.

Globe Aerospace, 11307 Vanowen Street, will provide $37,747 worth of similar fittings and parts.

The Kennedy Space Center launches manned and unmanned spacecraft in the United States program of space exploration.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-304-69

FOR RELEASE: Immediate

May 29, 1969

LOS ANGELES CONCERN AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.-- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a $41,575 materials contract to Faber Enterprises, Inc., 2316 Lincoln Boulevard, Los Angeles, California.

Under the Contract, the firm will provide fittings and parts for pressure and fluid connections required in ground support equipment used for space launches.

The Kennedy Space Center launches manned spacecraft in the U. S. lunar landing program and unmanned satellites in the scientific exploration of space.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-305-69
FOR RELEASE: Immediate'

May 29, 1969

TWO LONG BEACH, CALIFORNIA, FIRMS GET U. S. SPACEPORT CONTRACTS

KENNEDY SPACE CENTER, Fla.-- Two Long Beach, California, area firms have been awarded materials contracts by the National Aeronautics and Space Administration's John F. Kennedy Space Center.

Under the contracts, Airdrome Parts Company, 3251 Airport Way, Long Beach, will provide $72,432 worth of fittings and parts for pressure and fluid connections required in ground support equipment used for space launches.

Linair Engineering, 651 Knox Street, Gardena, will supply $96,471 worth of similar fittings and parts. Gardena is a suburb of Long Beach.

The Kennedy Space Center conducts manned and unmanned launches in the United States program of space exploration.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

1469

RELEASE NO: KSC-309-69
FOR RELEASE: Immediate

June 11, 1969

DR. DEBUS TO RECEIVE DAR AWARD

KENNEDY SPACE CENTER, Fla -- Dr. Kurt H. Debus, Director of the Kennedy Space Center, will be awarded the Americanism Medal by Brevard County Chapters of the Daughters of the American Revolution in a Flag Day ceremony at the Eau Gallie High School Stadium Saturday night.

The program will include a flag raising ceremony by two youth organizations. Over 100 patriotic, civic and service groups in the area have been invited to participate in a Parade of Flags to open the ceremony. The Melbourne Municipal Band will provide music for the occasion.

The award to Dr. Debus will mark the first time that the Americanism Medal has been presented in Brevard County. Since the award was first authorized by the DAR in 1958, less than 600 medals have been presented nationwide. Qualifications for the award include exemplary ideals, service to adopted country, leadership, initiative in promoting the American way of life, patriotism and trustworthiness. Recipients must be naturalized citizens of the United States for a minimum of five years.

Dr. Debus was nominated for the award by the Abigail Wright Chamberlin Chapter of the DAR, Melbourne. The Philip Perry Chapter, Cocoa, and the Indian River Chapter, Titusville, are also participating in the ceremony.

Presentation of the medal will be made by Mrs. G. A. Kirchman of Melbourne, Regent, Abigail Wright Chamberlin Chapter.

"Our chapter of the DAR is proud to have had the nomination of Dr. Debus approved by the DAR state and national Americanism committees," Mrs. Kirchman stated. "Dr. Debus certainly has met all the qualifications set by the DAR."

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Included in the program is the raising of the flag by the Children of the American Revolution, Melbourne, assisted by members of the Junior Naval ROTC Unit of Titusville High School. The Pledge of Allegiance will be led by the Regent of the Titusville DAR Chapter. The Parade of Flags will be led by the Junior Naval ROTC of Titusville High School and Boy Scout Troop 327 of Patrick Air Force Base. The audience will participate in the singing of patriotic songs and the recitation of the American's Creed.

Col. Asa B. Gibbs, USAF (Ret.), the guest speaker, will talk on Americanism prior to the presentation of the medal to Dr. Debus.

The ceremony, scheduled to begin at 7:30 p.m., is open to the public.

The award to Dr. Debus will be the second for him in two days. On Friday, he is to receive the Career Service Award of the National Civil Service League at a ceremony to be held in Washington, D. C.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-310-69
FOR RELEASE: Immediate

June 13, 1969

PITTSBURGH CONCERN GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The John F. Kennedy Space Center has awarded a $134,090 contract to Melley Motors Supply, Inc., 7912 Batavia Street, Pittsburgh, Penna., for generator sets to be used for emergency power in support of space launches.

The concern will furnish eleven 30-kilowatt trailer-mounted generator sets to cover any power outages occurring before, during, or after launch.

The Kennedy Space Center launches manned and unmanned spacecraft in the United States program of space exploration.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-311-69
FOR RELEASE: Immediate

June 13, 1969

CALIFORNIA FIRM GETS SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- The John F. Kennedy Space Center has awarded a $185,400 contract to Endevco Corporation, 3015 S. Kilson Drive, Santa Ana, California.

Under the contract, the firm will provide 300 low frequency accelerometers used in taking static and dynamic measurements in support of Apollo/Saturn V launches.

Kennedy Space Center launches Apollo/Saturn V space vehicles in NASA's program aimed at landing U. S. astronauts on the Moon and returning them safety to Earth.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-312-69
FOR RELEASE: Immediate

June 13, 1969

SPACEPORT CONTRACT AWARDED TO WINTER PARK FIRM

KENNEDY SPACE CENTER, Fla. -- Wood-Ivey Systems Corporation of Winter Park, Fla., has been awarded a $39,750 contract by NASA's John F. Kennedy Space Center.

The firm will provide a monitoring system for telephone-type cables used for data communications at the Spaceport.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-313-69

FOR RELEASE: Immediate

June 13, 1969

GENERAL ELECTRIC TO MAKE A STUDY FOR SPACE CENTER

KENNEDY SPACE CENTER, Fla. -- The General Electric Company Apollo Systems Department, Cape Canaveral, Fla., has received a $62,633 contract from the John F. Kennedy Space Center for a propellant system study.

The contract is designed to obtain improved high speed fueling techniques and automated checkout and evaluation of system components and performance.

General Electric is a major support contractor at the Spaceport.

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-314-69
FOR RELEASE: Immediate

June 13, 1969

AMPEX GIVEN SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla. -- Ampex Corporation, 401 Broadway, Redwood City, Calif., has been awarded a $99,648 contract for an analog tape recorder to be used in support of space vehicle launches at the Spaceport.

KSC is the National Aeronautics and Space Administration's major launch facility in the United States program of space exploration.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-315-69
FOR RELEASE: Immediate

June 17, 1969

BELL & HOWELL AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.-- The Bell and Howell Company, 360 Sierra Madre Villa, Pasadena, Calif., has received a $71,760 contract for the John F. Kennedy Space Center for maintenance and repair services for its equipment used at the Spaceport.

The Center launches manned and unmanned spacecraft in the United States program of space exploration.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-320-69
FOR RELEASE: Immediate

INSPECTION SPECIALISTS HAVE VITAL ROLE IN PREPARING SATURN V

KENNEDY SPACE CENTER, Fla. -- Soon, the sleeping giant will roar to life and rocket men to the Moon.

Even now there is a stirring inside the gleaming skin. Specialists thread through a catacomb of parts and components, preparing it for launch.

Work goes on inside the Saturn V rocket almost from the time the various stages and spacecraft arrive until it departs for the Moon.

"The stages must be inspected and tested," said Donald R. Oswald, Chief of the Quality Surveillance Division, Launch Vehicle Operations, at the Spaceport. "There are always modifications to make. It is exacting, demanding work."

Work on the Saturn V is accomplished by stage contractors. Inspections are performed by members of Oswald's staff.

Stages of the moon rocket were mated and checked out in the VAB. To check out the rocket, technicians install test equipment linking the Saturn V to the Launch Control Center and from this control point members of the launch team can test the pulse of the rocket during checkout and conduct the launch.

Access to the Saturn V -- to install test equipment, to make modifications, and to conduct inspections -- is carefully controlled.

"A man must have the right badges and the right reasons to get in any of the stages," stated Robert G. Abbott, who heads the Saturn V Quality Surveillance Branch.

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Inside the rocket technicians work in a maze of pumps, valves, fuel lines, wiring and electronic devices. They move carefully on specially designed walkways and access platforms. Conspicuous red tags identify non-flight equipment which must be removed before liftoff.

"Additionally, strict records are maintained of all tools used by anyone working inside the rocket, he said. "In some cases we require that tools be tethered. Anything that goes inside, and does not fly, must come out again!"

Asked what special kind of person is required to work inside a rocket, Abbott said: "You have to go with experience. If a person torques a bolt or installs a test lead -- if he works on Saturn at all -- he knows his business.

"And the inspector who monitors this work has to know the anatomy of the rocket. In my own office we have a veteran crew, averaging more than 10 years of rocketry experience per man."

The Quality Surveillance Division also supervises changes and modifications on all ground support equipment at Launch Complex 39.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-321-69
FOR RELEASE: Immediate

ASTRONAUTS TO LEAVE SCIENTIFIC 'CALLING CARD' ON MOON SURFACE

KENNEDY SPACE CENTER, Fla. -- The stay of the Apollo 11 astronauts on the Moon will be brief -- less than a day -- but they will leave behind a "calling card" which will provide scientific information long after they have returned to Earth.

The "calling card" is the Early Apollo Scientific Experiments Package (EASEP) packed into the Lunar Module's scientific equipment bay by KSC specialists on May 18.

EASEP consists of two independent and self-contained experiment packages -- the Passive Seismic Experiment Package (PSEP) and the Laser Ranging Retro-Reflector experiment (LRRR). The two EASEP packages weigh approximately 164 pounds and occupy about 12 cubic feet as stowed away in the LM descent stage scientific equipment bay.

According to Don J. Carlson, KSC Project Engineer for EASEP, the packages being carried on Apollo 11 are modifications of the more elaborate Apollo Lunar Surface Experiments Package (ALSEP) to be carried on later Apollo lunar landing missions.

EASEP is designed to measure lunar seismic activity and transmit the data to receiving stations back on Earth. It will also establish a reference point provided by optical retro-reflectors to facilitate ranging for precise measurements of Earth-Moon distances.

This data will be used to derive information on the composition of the lunar sphere, its origin and geophysical dynamics.

Apollo 11 Commander Neil A. Armstrong and Lunar Module Pilot Edwin E. Aldrin, Jr., will extract the EASEP packages from the LM and deploy them on the Sea of Tranquility landing site.

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They will then verify with the Manned Space Flight Network that receiving, processing and power supply subsystems are operable.

The PSEP weighs approximately 112 pounds and occupies approximately 7.7 cubic feet as stowed in the lunar module. The passive seismic experiment uses four seismometers.

These will be on the alert for meteoroid impacts and moonquakes and may help scientists to determine such properties of the lunar interior as the existence of a core or mantle.

On the PSEP are mounted the two solar panels which will provide operating power and a dust detector which will provide data on the buildup of lunar dust, the radiation environment and rate of degradation of thermal coatings.

Two radioisotope heaters generate 30 watts of thermal energy to help the PSEP electronics survive the harsh lunar night and its temperature dips to 300 degrees below zero.

The LRRR weighs approximately 52 pounds and occupies 4.5 cubic feet as stowed aboard the LM. It consists essentially of a retro-reflector array mounted on a pallet.

The reflector array consists of 100 high precision, fused silica optical corners mounted in precisely aligned cavities in a machined solid aluminum block.

Laser beams transmitted from one or more Earth-based stations will be bounced back to Earth to give experimenters precise Earth-Moon distance data.

The laser beam ranging technique will provide information on -- among other things -- fluctations in the Earth's rotation rate, Earth axis wobble and the inter-continental drift rate.

The reflector array is designed to survive for up to 10 years.

Both EASEP packages are quite fragile -- designed for the lunar stress loads of one-sixth earth gravity.

Armstrong and Aldrin practiced deploying the EASEP packages at KSC before they were stowed away aboard the Lunar Module in preparation for the Apollo 11 lunar landing mission scheduled for launch from Complex 39's Pad A at 9:32 a.m. on July 16.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-322-69
FOR RELEASE: Immediate

VETERANS FORM NUCLEUS OF KSC LAUNCH ORGANIZATION

KENNEDY SPACE CENTER, Fla. -- When Dr. Kurt H. Debus and his small rocket launch team first came to Cape Kennedy in 1952, available facilities were primitive by today's standards.

"We started out in an old, abandoned restaurant with its windows nailed up," recalls Dr. Debus, now Director of the 88,000-acre Kennedy Space Center. Launch facilities available in the early 1960's, adequate for rockets then existing, would also be considered primitive compared to today's sophisticated complexes.

In the pioneer days of America's military rocket program, Dr. Debus and his team of less than 100 engineers and technicians would accompany a truck-transported rocket from the Redstone Arsenal in Alabama to the Cape, erect it and check it out on the launch pad, launch it, and then return to Alabama to await completion of the next rocket. A number of Dr. Debus' early team members are still associated with him today at the Kennedy Space Center.

The evolution of KSC from its modest beginnings to the management organization of today can be attributed in large part to the vision and dedication of members of that team, supplemented as time went on by rocket and spacecraft veterans from other programs.

Two of the four operational directorates of the Center are headed by launch veterans of the early 1950's. Rocco A. Petrone, Director of Launch Operations, was in the blockhouse with Dr. Debus in 1953 for the first Redstone missile launch. Today his directorate is the largest element at the Center and the focus of its mission. Raymond L. Clark has been the Center's Director of Technical Support since 1964. As the senior project engineer at the Cape for the Army's Redstone and Jupiter missile systems in the 1950's, his duties kept him in daily contact with Dr. Debus.

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Three other veterans who have been associated with Dr. Debus for extended periods of time hold key positions at KSC. Dr. Hans F. Gruene, Director, Launch Vehicle Operations, repeatedly made the round trip between Redstone Arsenal and the Cape with Dr. Debus. Robert E. Gorman, Director, Launch Support Operations, has been a team member over 15 years. Karl A. Sendler, colleague of Dr. Debus for 20 years, is Director of Information Systems.

Prior to the formation of the National Aeronautics and Space Administration in 1958, Dr. Debus' team was part of the Army Ballistic Missile Agency at the Redstone Arsenal. After the establishment of NASA, a Presidential decision was made to consolidate space activities, other than military programs, under one agency. This resulted in the transfer to NASA of several Department of Defense projects then under way. It also resulted in the transfer of some 5,000 Federal employees, plus extensive facilities, from the Army to NASA in 1960.

In 1961, the launch team, made up of about 300 government personnel supported by contractors, became the Launch Operations Directorate of NASA's Marshall Space Flight Center at Huntsville, Alabama. In 1962, the directorate was moved to Cape Kennedy (then Cape Canaveral), where it was expanded and established as the NASA Launch Operations Center. The Center was redesignated the Kennedy Space Center, NASA,in 1963.

During its Army and early NASA affiliation, Dr. Debus' launch team was responsible for over 100 launches involving the Redstone, Jupiter and Pershing missiles and the Jupiter C and Juno rockets. Among early firsts for the team was the launch of Explorer I, the nation's first satellite, on January 31, 1958. During the 1960-62 period, the team launched five successful Rangers, a Centaur launch vehicle, two Mariners and six Mercury-Redstones, including Freedom 7 which carried Alan B. Shepard, Jr.,on America's first manned suborbital flight.

Early in 1961, as larger launch vehicles were planned, Dr. Debus and members of his team conceived a new launch concept. This concept called for assembly of the complete space vehicle in a protected environment and its move, with connections to its launch tower intact, to the launch pad.

On May 25, 1961, President John F. Kennedy announced the national goal of a manned landing on the Moon within the decade.

Stemming from Dr. Debus' mobile launch concept and President Kennedy's announcement, the machinery was set in motion to create the Free World's first operational Spaceport. Merritt Island, adjacent to Cape Kennedy, was selected as the new launch site.

In the meantime, NASA had assumed management of certain facilities at Cape Kennedy, including Launch Complex 34, for the launch of Saturn vehicles. NASA also built Launch Complex 37, another Saturn launch site, adjacent to LC-34. Fifteen Saturn I and Saturn IB vehicles were launched from these complexes, beginning in 1961.

The Kennedy Space Center's mission and capabilities were expanded in 1965 following a decision that there should be an integrated NASA organization for the launch of medium and heavy class vehicles, both manned and unmanned. A unit of NASA's Manned Spacecraft Center in Houston, known as the Florida Operations Group, that had directed the Mercury manned orbital missions and in 1965 and 1966 directed the 10 successful launches of manned Gemini flights, was transferred to KSC. G. Merritt Preston, now Director of Design Engineering, John J. Williams, KSC's Director of Spacecraft Operations, and Paul Donnelly, KSC's Launch Operations Manager, were among the key personnel involved in this transfer.

Another highly qualified NASA launch team, originally assigned to the Naval Research Laboratory and later to the NASA Goddard Space Flight Center, was transferred to KSC in 1965. The team had been concerned initially with launch of Vanguard satellites and later with NASA's unmanned launch program. Robert H. Gray, manager of this team, became Director, Unmanned Launch Operations, following the transfer.

As KSC evolved in less than a decade from a small nucleus to a multi-mission Government-industry team, significant physical changes occurred. The flat, marshy scrublands of north Merritt Island were transformed into an industrial area and launch center.

Today, with an attempt to land men on the Moon scheduled next month, an invaluable experience factor at the Spaceport is provided by the presence of a team of launch veterans. Many others in the Civil Service and contractor work forces have extensive experience in launch technology. Over 1000 Government employees have in excess of 10 years service, and more than 350 have been Government employees for more than 20 years.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-307-69
FOR RELEASE: Immediate

June 12, 1969

APOLLO 11 LAUNCH SLATED FOR JULY 16

WASHINGTON, D.C.,--The National Aeronautics and Space Administration is continuing preparations leading to the planned launch of Apollo 11 on July 16 for the first manned lunar landing attempt.

The decision to proceed on the schedule leading to the July mission is based on a review of the current status and remaining training schedule for the Apollo 11 astronauts and the ground flight control team, the current status and readiness for upcoming preparations and tests of the space vehicle and associated ground support equipment at Kennedy Space Center and the final analysis and resolution of the Apollo 10 mission anomalies.

Crew for the Moon landing mission is Neil Armstrong, spacecraft commander; Michael Collins, command module pilot; and Edwin E. Aldrin, lunar module pilot.

The mission plan calls for astronauts Armstrong and Aldrin to land on the Moon July 20 and for Armstrong to be the first man to set foot on the Moon as he leaves the lunar module in the early morning hours (eastern daylight time) of July 21. Aldrin will follow Armstrong out on the surface about 30 minutes later.

In announcing the decision to proceed with plans to launch Apollo 11 July 16, Lt. Gen. Sam C. Phillips, Apollo Program Director, pointed out that there are several major milestones to pass before launch.

These include space vehicle hypergolic loading beginning June 16th or 17th; first stage fuel loading June 23; command module ordnance installation June 24; countdown demonstration test (wet) June 25-July 2; terminal countdown demonstration (dry with crew aboard) July 3; and the space vehicle countdown July 10-16.

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In the crew training area, the Apollo 11 astronauts still have to review flight program notes and anomalies, back contamination procedures, photo and camera operations, have a final spacecraft systems briefing and review mission rules. They also will participate in the countdown demonstration test, run spacecraft and mission control simulations, and undergo several special purpose training exercises.

These special purpose training activities include a back contamination walk-through, suiting and unsuiting in command module, lunar surface operation preparations and walk-throughs, bench checks and Lunar Landing Training Vehicle flights.

The reveiw of the Apollo 10 mission included study of several anomalies which occurred during the flight.

--In Apollo 10 the lunar orbital plane did not regress as expected and resulted in the lunar module making its low passes over landing site number 2 further south than was expected. Apollo 11 will be flown at the same orbital inclination as was Apollo 10. This will enable flight control to bias the orbit to allow for the variation in orbital motion that was encountered on Apollo 10. This is expected to bring the lunar module well within the propellant capacity to carry out its powered descent.

--The docking tunnel problem was found to be the result of a wrong fitting on the tunnel pressurization dump line. The Apollo 11 tunnel has been inspected and tested to insure that the correct fitting is installed.

--The fiberglas insulating material on the docking tunnel hatch of the command module has been removed to eliminate the possibility of the material escaping into the lunar module and command module as it did on Apollo 10.

--The problem which resulted in an unexpected change in attitude of the lunar module at the time of staging in Apollo 10 has been associated with switch circuitry in the abort guidance system which provides a backup for the lunar module primary guidance. The use of the backup guidance system during the Apollo 10 mission was a deliberate test to provide flight experience and data is this mode of operation. Although this anomaly did not jeopardize crew safety and the normal mode of operation is to use the primary guidance and navigation system, analysis to determine exact cause of this anomaly is continuing and we are confident that it will be resolved prior to the Apollo 11 mission.

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--Vibrations encountered in the Apollo 10 S-IVB powered flight and translunar injection operation are well within the limits of safety. Instrumentation and continuous telemetry provisions are being installed on Apollo 11 S-IVB to get information if these vibrations occur on the mission.

"At any time between now and launch on July 16, we will not hesitate to postpone if we feel we are not ready in every way," General Phillips said. "Nor, once the voyage has begun, would we hesitate to bring the crew home immediately if we encounter problems."

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-323-69
FOR RELEASE: Immediate

July 2, 1969

KSC LAUNCH TEAM DIRECTS PREPARATION FOR APOLLO 11 MISSION

KENNEDY SPACE CENTER, Fla. -- When Apollo 11 roars to life from Launch Pad A July 16, thousands of KSC employees will have worked hard to make this flight possible.

Since January, Spaceport engineers and technicians have been preparing the space vehicle for its historic mission. Under the technical direction of a NASA test supervisor, the Government-industry launch team assembled and tested the Apollo spacecraft in the Manned Spacecraft Operations Building and the Saturn V rocket in the Vehicle Assembly Building.

Following mating of the spacecraft and rocket in the VAB, the fully assembled 363-foot Apollo 11 began the first leg of its journey May 20 atop the giant transporter.

As Apollo 11 rolled out to Pad A, the KSC launch team geared up for final testing. This includes the Flight Readiness Test and Review and the Countdown Demonstration Test (CDDT).

The CDDT is a critical, round-the-clock dress rehearsal for launch. Hundreds of carefully selected operational and support activities are carried out by the entire team, simulating actual launch-day conditions.

Directing the operations for NASA are William H. Schick, test supervisor; Norm Carlson, launch vehicle test conductor; C. A. Chauvin, command-service module test conductor, and Fritz Widick, lunar module test conductor.

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Schick represents the Director of Launch Operations, Rocco Petrone. As test supervisor, he coordinates all launch-related activities, including spacecraft operations, launch vehicle operations and support operations.

Schick holds frequent meetings with his test conductors to discuss scheduling, problem areas, and specialized test requirements. As launch approaches, these meetings are held daily.

Norm Carlson, test conductor for the Saturn V launch vehicle, represents the Director of Launch Vehicle Operations. He has four contractor test conductors who report on the progress of their stages. They are Bob Verdier, Boeing's test conductor for the first stage; North American's Tom Martin, second stage; Ron Shane of McDonnell Douglas for the third stage, and Tom Kitchens of IBM for the instrument unit.

Apollo 11 will be the sixth Saturn launch for Carlson. It doesn't rank as being any more difficult than previous ones, he believes, because "people are really on their toes."

C. A. Chauvin of the Spacecraft Operations Directorate has overall responsibility for the preparation of the spacecraft command and service modules. He supervises the tests run on the modules by North American test conductors in the Manned Spacecraft Operations Building. Stan Jensen is the North American spacecraft manager.

"The altitude chamber tests in the MSO are the first critical tests," Chauvin explained. "Then we transfer the spacecraft to the VAB and run a series with the launch vehicle to insure compatibility."

Responsibility for overseeing the lunar module that is expected to touch down on the Moon rests with Fritz Widick, also of KSC's Spacecraft Operations Directorate. To him, this will be the prime test of the lunar module.

"Morale's good," he reports, "and people are looking forward to this flight." Heading the Grumman checkout team is Mark Goodkind, spacecraft test engineer.

Apollo 11 will be the third manned flight of a lunar module.

Other Key NASA personnel include John Hurd, command-service module manager; John Beeson, lunar module manager, and Gary Richards, NASA test support controller.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC 324-69
FOR RELEASE: Immediate

July 2, 1969

KSC SAFETY OFFICE HAS MULTIPLE ROLES IN APOLLO 11 ACTIVITIES

KENNEDY SPACE CENTER, Fla. -- The KSC Safety Office participates in almost all phases of Center activity leading up to the launch of Apollo 11.

"Of course a major function is monitoring the hazardous operations related to the vehicle," said John R. Atkins, Director of the Safety Office. He specified events like fueling operations, and transfer of the mobile service structure to its parking site several hours prior to liftoff.

The constant review of procedures pertaining to checkout and launch and the monitoring of hazardous tests is accomplished by the Operations Safety Branch. John T. McGough is Chief of the Branch.

The Industrial Safety Branch is concerned with the wide range of industrial activities which take place here such as machine shop operations, work area safety, and personal protective equipment. It is also involved with the safety problems associated with the fact that there will be several thousand visitors at the Center for Apollo 11. This branch is headed by George Kontra.

The Safety Technology Branch, under George T. Carter, contributes to the design of structures and facilities at the Space Center. Safety features in the Vehicle Assembly Building, on the mobile launchers, at the launch pad and in other areas reflect the engineering guidance of Safety Technology.

"These individual activites by the Branches merge to form a total mode of operation for the Safety Office," said Charles A. Overbey, Deputy Director of the Safety Office.

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"We have been reviewing and improving these programs since launch operations began here. Thus, the Safety Office is in the proper posture to support Apollo 11."

The Safety Office is supported by Bendix Systems Safety Support Department. The contractor provides safety engineering services, reviews test and checkout procedures and monitors operations for the Safety Office.

Deputy Director Overbey noted that from a safety viewpoint, every manned launch is of equal importance. "There are always hazards such as those associated with propellant loading and pressurizing the space vehicle -- and if we cannot eliminate these hazards we seek to reduce them as much as possible."

KSC's overall safety record was termed excellent by the Deputy Director. He attributed this "in great measure to the emphasis placed on safety" at the Spaceport by KSC Director, Dr. Kurt H. Debus; Deputy Director, Center Management, Albert F. Siepert; and Deputy Director, Center Operations, Miles Ross. "They stress safety, and their sincerity and wholehearted interest is contagious," Overbey emphasized. He alsocited the excellent safety programs within Spaceport contractor organizations as a major factor in the KSC safety record.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-325-69
FOR RELEASE: Immediate

DESIGN ENGINEERING LED WAY IN PREPARING APOLLO FACILITIES

KENNEDY SPACE CENTER, Fla. -- "We have been preparing for this mission for several years," said Grady Williams, Deputy Director of Design Engineering, "and now we are ready to go."

To prepare for Apollo 11, specifically, a thorough engineering analysis of facilities and ground support equipment at the Spaceport is conducted by the Design Engineering Directorate.

"For every mission," Williams pointed out, "we go into a complete review of each and every one of our systems, with prime emphasis on the critical ones. We will continue this analysis right down through the launch countdown."

He added that no unacceptable design constraints have been uncovered.

Williams serves as Deputy to G. Merritt Preston, Director of Design Engineering. Both are aerospace veterans, as are the men who head the Directorate's principal offices and divisions.

The Deputy Director traced the role of Design Engineering back to the beginning of the Apollo program and listed three objectives which had to be achieved prior to the Apollo 11 launch.

The first objective was to develop the lunar launch facilities at KSC. The Spaceport became operational with the unmanned launch of the first Apollo-Saturn V on November 9, 1967.

Objective number two was to man-rate the lunar launch complex. This was accomplished December 21, 1968, when Apollo 8 lifted off to begin an historic journey which would send men around the moon for the first time.

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The third objective listed by Williams is a continuing one -- to design required modifications for facilities and equipment at the Space Center. Modifications are made to improve operational efficiency, to reduce assembly and checkout time, to reduce costs and to promote safety.

Recent modifications include the addition of slide wires at both Saturn V launch pads, the activation of high bay 2 in the Vehicle Assembly Building, and the addition of protective overlays to the roofs of the VAB and the Launch Control Center.

"This is a constant effort," Williams said, "in which all of our people in Design Engineering participate. For example, Walt Parsons' shop will examine designs from an electrical and electronic point of view. Albert Zeiler brings his years of experience into an examination of mechanical designs. And it's this way throughout the organization."

Catalytic-Dow provides contractor support for design engineering.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-326-69
FOR RELEASE: Immediate

TECHNICAL SUPPORT HAS EXTENSIVE SLATE OF JOBS FOR APOLLO 11

KENNEDY SPACE CENTER, Fla. -- Technical Support is a multi-purpose Directorate with an extensive slate of assignments for the Apollo 11 mission.

The Directorate manages data systems employed to checkout and launch Apollo 11, and operates launch complex support facilities.

After liftoff, as Apollo 11 climbs toward orbit, the Directorate's information systems complex receives and routes flight telemetry data to Mission Control in Houston.

Raymond L. Clark, Director of Technical Support, expressed confidence that "we will be functioning at maximum effectiveness for the upcoming mission."

Two Directorates report to Clark, Information Systems and Support Operations.

The Chief of Information Systems is Karl Sendler. His Directorate produces and displays almost every kind of technical information needed for the conduct of Saturn launch operations.

Sendler's office in the Central Instrumentation Facility (CIF) is located amidst four floors of computers, communications gear, tracking equipment and laboratories.

The CIF is linked to the Launch Control Center at the Spaceport and to Mission Control. There are communications ties to the world-wide Manned Space Flight Network, which routes information to and from Apollo 11 during the entire lunar landing mission.

- more -

Sendler's organization processes the volumes of test data generated as Apollo 11 is readied for launch. Laboratories in the CIF are equipped to calibrate sensitive measuring devices used in checkout. The CIF antenna site receives measurements from Saturn V during powered flight, in addition to tracking signals.

"Karl's people are involved in this flight in many, many ways -- all of them vital," said Clark. "But, Information Systems in only one aspect of our total involvement in Apollo 11. "In the mechanical areas," he continued, "we operate such things as the transporter, mobile service structure, high pressure gas system, and many other vital systems.

Responsibilities of the mechanical type are carried out by Support Operations, under the direction of Robert E. Gorman. Other duties of Support Operations include propellant logistics, life support, operation of the spacecraft egress system and the malfunction investigation lab. Technical shops are also under the supervision of Support Operations.

"We have a smoothly operating team in Technical Support," Clark observed, "composed of civil servants and contractor personnel. The two support contractors providing services for the Directorate are Bendix Launch Support Division and Federal Electric Corporation.

Clark remarked that the men and women of the Technical Support team "are almost too busy to pause and reflect on the historical significance of Apollo 11.

"But the sense of belonging to such a program is a matter of extreme pride," he said. "We are looking forward to a successful lunar landing as well as the follow-on programs that obviously must be continued."

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-327-69
FOR RELEASE: Immediate

APOLLO 11 "NO. 1 PRIORITY" FOR INSTALLATION SUPPORT

KENNEDY SPACE CENTER, Fla. -- "Apollo 11 is the current number one priority -- the prime responsibility," stated Frederic H. Miller, Director of Installation Support, "like every other launch has been in its time."

Miller reported that his organization is primed for Apollo 11, saying: "All of the personnel within the Installation Support framework, both civil service and contractor, are trying in every way possible to assure success of the launch by providing one hundred percent support.

"We are all tremendously keyed up for the launch in the sense that Apollo 11 is the great payoff we've been working toward for many years."

KSC support contractors serving the Directorate are Trans World Airlines, Inc., headed by Mr. Harry Olander, and Service Technology Corporation, managed by Mr. James Hayes.

The Directorate is responsible for the general operation and maintenance of the installation and furnishes services keyed specifically to launch operations and other general services at KSC.

These include security, fire protection and rescue service, medical support, electrical power and other utilities, food, disaster control planning, photography, reproduction and publications services, logistics, data management, and maintenance of buildings and structures except for test and launch complex facilities.

- more -

"Our primary effort now," said Miller, "is to be certain that the support is there when needed and in the form spelled out by the people who place the requirements on us."

Charles L. Buckley's Security Office provides physical security of launch facilities, maintains impact lines, clears the pad before liftoff and supplies other launch security.

Another responsibility is making life easier for guest by keeping traffic lanes open, offering assistance at viewing sites, and responding to any emergencies.

"Our plans are well established," said Buckley, "and are being implemented on schedule. We are, of course, working closely with local law enforcement and civil defense agencies."

In the Logistics area, Division Chief George E. Harrington said, "Central Supply is ready to support any requirements and is open around the clock with a beefed-up staff." All launch critical items are on hand, positioned for immediate issue when required.

The Transportation Branch is preparing to serve the largest number of visitors -- thousands -- ever to witness a launch here. Transportation requirements to support launch operations are at top operational readiness.

Administrative Services, headed by P.A. Fagnant, reports mail volume up to 10-12,000 letters a day in the weeks preceeding liftoff, not including 80,000 pieces of launch documentation handled per month. Medical and food services, functions of this office, are geared to accommodate the crush of people on launch day.

The Documentation Division, led by James F. Russo, generates procedures, handbooks, specifications and other technical data required to test and launch Apollo 11. Services include photography, film products, microfilming and reproduction of documentation.

The Spaceport's sparkling appearance for launch day is a direct result of efforts by the Plant Engineering and Maintenance Division, under the direction of Raymond C. Daley. Vital services such as water, power, air conditioning and fire protection are supplied by this Division.

The failure of ground support equipment at a critical time could throw Apollo 11 off schedule. To prevent this, KSC procurements are reviewed by the Quality Surveillance Division.

"We follow up with inspections," said Russell A. Gramer, Division Chief, to certify adherence to specifications and operational readiness.

Other divisions and offices in Installation Support evaluate contractor operations, define services provided in support of launch operations, control resources planning and budget allocations.

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KENNEDY ... NTER, FLORIDA 32899
NATIONAL AERO... ... AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-328-69
FOR RELEASE: Immediate

APOLLO PROGRAM OFFICE COORDINATES LAUNCH EFFORTS

KENNEDY SPACE CENTER, Fla. -- As the scheduled July 16 launch date of Apollo 11 nears, the main function of the Apollo Program Office at KSC is to insure the conduct of complete, thorough, and very disciplined reviews of possible launch constraints.

The Flight Readiness Review June 17, acted on all reports of unsatisfactory conditions in any of the ground support equipment to be used for the launch of the historic first moon-landing attempt.

All systems and components were reviewed and any potential single failure points that might endanger the mission were identified.

Admiral Roderick O. Middleton, Manager of the KSC Apollo Program Office, says his office will follow up each identified restraint and make sure that it's been properly closed out.

"Our main concern now, "Adm. Middleton says, "is to insure that the Director of Launch Operations will have an operable complex and full and complete support for the countdown and liftoff.

"As of now, our overall posture appears to be a very good one. I currently see no major problems."

A large part of the work of the Apollo Program Office on this mission was done months ago. The program office at the Spaceport has the basic responsibility in planning for the support needed to accomplish each Apollo mission.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-329-69
FOR RELEASE: Immediate

LAUNCH OPERATIONS HIGHLY MOTIVATED FOR APOLLO 11

KENNEDY SPACE CENTER, Fla. -- "Everything we have done for the past several years is actually culminating in this next mission, Apollo 11," said Walter J. Kapryan, Deputy Director of the Launch Operations Directorate.

"We are moving ahead toward launch with confidence, based on experience--but not with overconfidence," he emphasized. The Deputy Director reported that the launch team was highly motivated for a successful mission.

He characterized the checkout of Apollo 11 as a series of tests which indicate when the vehicle is ready to perform its mission. "When we are satisfied with the results we move into countdown and launch."

Launch Operations, headed by Rocco A. Petrone, is the key Directorate at the Spaceport. The overall responsibility of committing Apollo 11 to launch rests with the Directorate.

This responsibility includes checkout, countdown and launch. It encompasses the Saturn V, the Apollo spacecraft, and ground support equipment involved in Apollo-Saturn operations.

Reporting to Petrone are Kapryan, his Deputy, Paul C. Donnelly, Launch Operations Manager for Apollo 11, and Robert E. Moser, in charge of Launch Operations Planning. "We look at the whole picture," said Kapryan, "with a view toward integrating all of the elements which play a part in the launch."

Two Directorates within Launch Operations manage the Apollo-Saturn V from arrival until liftoff.

Launch Vehicle Operations, headed by Dr. Hans F. Gruene, is in charge of the Saturn V. Spacecraft Operations, under John Williams, prepares the Apollo spacecraft for its mission.

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"Each Directorate and each contractor has a series of tasks to perform. These eventually come together into an integrated operation.

"In general terms our biggest effort in Launch Operations is that of bringing all of these diverse tasks together, integrating them into a smooth flow which leads up to the actual liftoff," the Deputy Director observed.

He was asked if preparations for Apollo 11 differ from those of previous launches. Kapryan noted that the processing of the spacecraft and the launch vehicle is fairly well standardized now.

"There are some experiments aboard this spacecraft which have not flown before, those which will be operated on the lunar surface. This is new. But as far as the preparation of the space vehicle itself -- it's the same as for the past several missions."

Readying a rocket for launch does not lend itself to an ordinary eight-hour day.

"Long hours have been our way of life for quite a few years now," Kapryan remarked. "Everyone on the launch team recognizes that this is often necessary.

"However," he concluded, "we have sufficient manpower to spread out the workload. You will see a fresh, eager launch team for the Apollo 11. We will be ready."

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-330-69
FOR RELEASE: Immediate

July 3, 1969

APOLLO 11 FIRING ROOM MANNED BY 450 PERSONNEL

KENNEDY SPACE CENTER, Fla. -- The KSC Launch Team for Apollo 11 will include a nucleus of 450 technicians, engineers, test conductors and launch directors who will conduct the countdown and launch from Firing Room 1 of Complex 39's Launch Control Center.

From their firing room consoles the NASA-industry team members will bring together all phases of launch activity, culminating in the liftoff of Apollo 11 from Pad A.

Personnel assigned to Firing Room 1 include KSC-NASA organizations and representatives from Goddard Space Flight Center, Marshall Space Flight Center, Manned Spacecraft Center and NASA Headquarters.

Contractors with access or seating assignments include: Boeing, North American Rockwell, McDonnell Douglas, International Business Machine, Grumman, General Electric, Federal Electric, Radio Corporation of America, Chrysler Corporation, Bendix and Sanders Associates.

Firing Room 1 contains fourteen rows of display and control consoles where NASA officials and stage and support contractors monitor the pulse of the Apollo 11 moonship and receive information about conditions aboard the vehicle.

The firing room is also equipped with vertical recording and monitoring racks. A computer room contains additional personnel.

The firing room is organized to reflect the countdown and launch chain of command. It is a hierachy structure.

The first four rows of upper consoles are elevated to accommodate 68 NASA and contractor personnel with comprehensive responsibility including the launch director, test supervisors and test conductors. These key personnel work from their consoles while observing the busy activities on the main floor.

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Seated at the first row of upper consoles from left to right are the following: Isom A. Rigell, Chief Engineer, KSC Launch Vehicle Operations; Lee B. James, MSFC Saturn V Program Manager; Andrew J. Pickett, Test Operations Manager, KSC Launch Vehicle Operations; Dr. Hans F. Gruene, Director, KSC Launch Vehicle Operations; Rocco A. Petrone, Director of KSC Launch Operations; Dr. Kurt H. Debus, Director, Kennedy Space Center; Walter J. Kapryan, Deputy Director of KSC Launch Operations; John J. Williams, Director, KSC Spacecraft Operations; George M. Low, MSC Apollo Program Manager and John W. King, KSC Public Affairs.

Firing room personnel seated in the second row of consoles are the following: R. E. Youmans, Chief Test Conductor, KSC Launch Vehicle Operations; N. M. Carlson, Test Conductor, KSC Launch Vehicle Operations; E. R. Bentti, Test Conductor, KSC Launch Vehicle Operations; W. H. Schick, Space Vehicle Test Supervisor, KSC Launch Operations; B. L. Grenville, Space Vehicle Test Supervisor, KSC Launch Operations; P. C. Donnelly, Launch Operations Manager, KSC Launch Operations; R. E. Moser, Test Planning, KSC Launch Operations; W. A. Fuller, TIE Space Vehicle Engineer, Boeing; J. F. Heard, Spacecraft Operations Test Conductor, KSC Spacecraft Operations; M. L. Martin, Spacecraft Test Manager, North American Rockwell; O. S. Gonzales, Assistant Spacecraft Test Manager, Grumman; J. D. Beeson, Spacecraft Operations Test Conductor, KSC Spacecraft Operations.

Apollo 11 launch team personnel assigned to the third row are J. H. Lundy, Senior Test Conductor, Boeing; J. Rogers, Test Conductor Engineer, Boeing; R. P. Verdier, Test Conductor, Boeing; W. R. Brown, Test Conductor Engineer, Boeing; T. E. Martin, S-II Test Conductor, North American Rockwell; E. L. Carpenter, Assistant Test Conductor, North American Rockwell; R. C. Shane, S-IVB Test Conductor, McDonnell Douglas; G. V. Barnum, Assistant S-IVB Test Conductor, McDonnell Douglas; R. C. Bulkley, Operations Engineer, IBM; T. R. Kitchens, Instrument Unit Test Conductor, IBM; E. C. Witt, Complex Manager, IBM; R. D. Brooks, Electrical Engineer, North American Rockwell; J. A. Gulsby, Sr., GSE Engineer, KSC Spacecraft Operations; D. C. Dunn, ACE Engineer, North American Rockwell; D. R. Moore, GSE ACE Engineer, KSC Spacecraft Operations; W. R. Pogue, MSC Astronaut Communicator; D. K. Slayton, MSC Astronaut Communicator; J. F. Battaglia, Launch Complex 39 Operations, KSC Spacecraft Operations; T. H. Lindsay, Jr., Command/Service Module-Launch Vehicle, KSC Integration Engineer; Dr. A. C. Harter, MSC Biomedical and Dr. H. S. Brownstein, NASA Headquarters Biomedical.

Twenty-six people stationed in the fourth row are N. E. Roseland, Electrical Networks, KSC Launch Vehicle Operations; F. G. Bryan, Engineering, KSC Launch Vehicle Operations; R. E. Lealman, Electrical G&C Systems, KSC Launch Vehicle Operations; L. E. Fannin, Mechanical & Propulsion Systems, KSC Launch Vehicle Operations; M. D. Edwards, Instrumentation, KSC Launch Vehicle Operations; D. R. Oswald, Quality Assurance, KSC Launch Vehicle Operations; W. C. Holmes, Launch Operations Site Manager, Boeing; J. J. Cully, Saturn V Program Manager, Boeing; A. C. Martin, S-II Operations Manager, North American Rockwell; H. Eaton, Jr., Saturn/Apollo Programs Director, McDonnell Douglas; G. M. Smith, Test Operations Manager, IBM; R. G. Young, Display Coordinator, KSC Technical Support; A. M. Koller, Jr., Technical Assistant, KSC Launch Vehicle Operations; the EIDOPHOR Controller, KSC Technical Support; Jo Ann Morgan, Chief Instrumentation Controller, KSC Technical Support; J. R. Smith, Alternate Instrumentation Controller, KSC Technical Support; J. R. Davenport, Communications Controller, KSC Technical Support; J. N. Barfus, Test Support Controller, KSC Technical Support; G. E. Artley, Chief Test Support Manager, KSC Technical Support; Raymond L. Clark, Director of KSC Technical Support; S. J. Evans, KSC Security; A. A. Carroll, KSC Security; R. E. Woods, KSC Safety; R. L. DeBendictis, System Safety, Bendix; F. M. Falkenberry, System Safety, Bendix and L. S. Eads, Air Force Eastern Test Range Superintendent of Range Operations, Pan American.

Seated in rows of consoles on the main floor of the firing room are contractor personnel organized by stage and major systems. Each row has 15 positions. Boeing mans one row of consoles for their S-IC stage, two rows of consoles for mechanical ground support equipment, and one row for propellants. Boeing has more than 140 assignments in the firing room.

North American Rockwell personnel are assigned to one row of S-II stage consoles and have some 60 firing room seats.

McDonnell Douglas monitors the S-IVB stage from their row, and has about 45 firing room assignments.

IBM has three rows of consoles on the main floor for the Instrument Unit, stabilization and guidance, and flight control. IBM will have about 90 personnel stationed in the firing room.

The visitors gallery and operations management room are glass partitioned areas overlooking the busy hub of activity. The vistors area is near the firing room entrance while the management room is on the other side.

A number of top NASA officials will participate in the Apollo 11 launch from the management operations room. Among those expected at NASA Headquarters are Dr. George E. Mueller, Associate Administrator for Manned Spaceflight; Lt. Gen. Sam L. Phillips, Apollo Program Director, Office of Manned Spaceflight; and Chester M. Lee, Apollo Program Deputy Director.

Others in the management room will include Dr. Wernher von Braun, Director of the Marshall Space Flight Center; Dr. Robert R. Gilruth, Director of the Manned Spacecraft Center is also invited. KSC officials in the management operations room will include Miles Ross, Deputy Director, Center Operations and Rear Adm. Roderick O. Middleton, Manager KSC Apollo Program Office.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-331-69
FOR RELEASE: Immediate

July 3, 1969

ACCEPTANCE CHECKOUT EQUIPMENT TAKES 3,500 MEASUREMENTS ON APOLLO SPACECRAFT

KENNEDY SPACE CENTER, Fla. -- A computer system that processes 24,000 samples of test data per second is the heart of the checkout equipment for the Apollo 11 spacecraft at KSC.

Known as the Acceptance Checkout Equipment (ACE) system, it can handle approximately 3,500 different spacecraft measurements, most of which are taken automatically. By contrast, manual test techniques for Mercury spacecraft involved only 88 measurements.

Two of the six ACE stations in the MSO Building were electrically and electronically connected to the command-service module and the lunar module of Apollo 11 shortly after the modules arrived at the Spaceport in January.

These two ACE stations will continue to monitor and control Apollo 11 around the clock until it clears the mobile launcher at liftoff, scheduled for 9:32 a.m., July 16.

Two ACE stations are required for each Apollo spacecraft being readied for launch.

Despite the largely automatic functions of ACE, highly qualified people are required to perform vital functions at each ACE station. Approximately 60 engineers and technicians man each station, which consists of a control room and a computer room. The ratio of Government to contractor personnel on duty at each station is roughly one to one.

Each ACE station has a designated NASA Station Manager. The Manager for Station 1, which is connected to Apollo 11's command-service module, is Raymond Klinect. Manager for Station 3, connected to Apollo 11's Lunar Module, is Nevin Ball.

Each Station Manager is responsible to a NASA spacecraft Test Conductor, who in turn reports to George Page, Chief of the Operations Division, Spacecraft Operations.

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Skip Chauvin is the Command-Service Module Test Conductor and H. K. Widick is the Lunar Module Test Conductor.

At each station is a General Electric Test Director who supervises the personnel assigned to operate and maintain equipment at that station. Test Director for Station 1 is Earl Turner and for Station 3 is Eric Simon.

Operation and maintenance of the six ACE stations at KSC is the responsibility of the Checkout Equipment Branch of the Engineering Division, Spacecraft Operations. Chief of the division is Michael A. Wedding, a 10-year veteran of the Mercury, Gemini and Apollo programs.

For Apollo 11, the contractor supervisor for the command-service module team is Test Project Engineer Thomas Baggett, North American Rockwell, while the contractor supervisor for the lunar module is Spacecraft Test Engineer Frank McKinney, Grumman.

In Firing Room 1, Launch Control Center, ACE consoles display data which is monitored by key launch managers.

"Our two ACE stations for Apollo 11 are functioning smoothly to date," said Wedding. "Our responsibilities for Apollo 11 are very similar to those we had for Apollo 10 and because of this and the high qualifications of our people, we don't anticipate any significant difficulties with Apollo 11's ACE stations between now and liftoff."

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KSC
ENNEDY SPACE CENTER, FLORIDA
TIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-332-69
FOR RELEASE: Immediate

July 2, 1969

SPACEPORT CLOSED TO TOURS ON APOLLO 11 LAUNCH DAY

KENNEDY SPACE CENTER, Fla. -- Kennedy Space Center will be closed to public tours during the launch of Apollo 11.

The lunar landing mission is scheduled to begin July 16. On that day the Visitor Information Center will be closed to the public and no bus tours will be scheduled until two hours after launch or, until Center officials deem practicable.

Operational commitments during and shortly after launch make closing the Center to the public necessary.

Visitors will be allowed into the center following the launch and may take advantage of guided bus tours, free movies, exhibits and lectures at the Visitor Information Center.

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PUBLIC INFORMATION OFFICE, COCOA BEACH - 783-7781, KSC - 867-2467

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-335-69
FOR RELEASE: Immediate

July 3, 1969

APOLLO 11 NEWS CENTER OPENS JULY 7

KENNEDY SPACE CENTER, Fla. -- The Apollo 11 News Center, located on Highway A1A in Cape Canaveral across from the Cape Kennedy Hilton, will officially open Monday, July 7.

The Cape Canaveral news center will be the main facility to accommodate visiting press here for the Apollo 11 launch, scheduled July 16.

A second news center, located in the Parachute Building in the Kennedy Space Center Industrial Area, will also open July 7 to serve as a local, or launch center support facility.

The main news center in Cape Canaveral will operate daily from 7 a.m. to 7 p.m. until the day before launch, when it will remain open 24 hours. The facility at the Kennedy Space Center will be open each day from 8 a.m. to 4:30 p.m.

An estimated 2,500-3,000 United States and foreign newspaper, television and radio representatives are expected for the Apollo 11 launch.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-338-69
FOR RELEASE: Immediate

July 8, 1969

SPACEPORT KEEPS WEATHER WATCH FOR APOLLO 11

KENNEDY SPACE CENTER, Fla.-- At the Kennedy Space Center, weather conditions are monitored as intensely as the final preparations to launch the Apollo 11 astronauts on a lunar landing mission.

From the moment the transporter carries the Apollo 11 flight vehicle to the launch pad, one of the most concentrated weather watches known to man begins.

Bill Schick, Apollo 11 test supervisor, explained that prior to moving a 36-story Apollo-Saturn V vehicle to the launch pad, vinyl rain covers are installed over the spacecraft areas.

The Saturn V rocket is basically waterproof. However, weather curtains enclose some critical areas.

After a mobile service structure is moved into place next to the space vehicle, three enclosed work platforms on the service structure surround the spacecraft areas and provide protection from the elements.

If adverse conditions threaten, the Spaceport's staff meteorologist notifies the launch team officials.

Schick noted that in the event propellants haven't been loaded, crews usually can work in minor thundershowers. When propellants begin to flow to the space vehicle, constraints are rigid, and fueling must be discontinued if lightning strikes within five miles of the launch pad. When this happens, personnel are cleared from the pad area, except those who monitor rain seepage and conduct buttoning up operations.

According to Schick, only 10 hours have been lost to date during Apollo 11 prelaunch checkout due to adverse weather. Most of this time resulted when propellant loading was discontinued because lightning struck within the five mile limit.

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Weather has not caused injuries to personnel or damage to space vehicle and ground support equipment since Apollo 11 rolled out to the pad May 20.

With the mobile service structure in place, it's estimated that an Apollo-Saturn V can withstand steady winds up to 73 miles per hour. A hurricane alert status is initiated prior to a forecast of steady state winds of 50 knots, or 57 miles per hour.

If a hurricane should move in, the Director of Launch Operations monitors weather conditions on an hourly basis. If it appears hurricane winds are going to exceed the 73 mile-per-hour limitation during the coming four days, he decides when to return the space vehicle to the Vehicle Assembly Building. If the Apollo-Saturn V is fueled, the propellants are unloaded before the move.

The decision usually is made 48 hours prior to the estimated time of the storm's arrival, because the move back to the assembly building should take place before winds exceed 40 miles per hour.

In addition to the monitoring equipment used at weather stations, weather instruments are located on the mobile launcher, mobile service structure and at selected areas throughout Launch Complex 39. There, instruments transmit data 24 hours a day to the Launch Control Center.

Stroke meters record the number of lightning hits. The data is used to help evaluate the effectiveness of lightning protection equipment.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-341-69
FOR RELEASE: Immediate

July 9, 1969

DEBUS DIRECTS LAUNCH TEAM AT SPACEPORT

KENNEDY SPACE CENTER, Fla. -- Today he directs activities at the Nation's Spaceport, where an integrated government-industry launch team of 23,000 is preparing Apollo 11 for man's first journey to the lunar surface.

In the early 1950's, he led a group of about 50 rocket scientists who came to Florida's east coast to test Redstone missiles at a place called Cape Canaveral, today Cape Kennedy.

Since that time Dr. Kurt H. Debus has come to be recognized as one of the foremost authorities on launch technology. He headed the team which designed and developed the lunar launch complex at Kennedy Space Center, and placed it in operation.

In 1961, the late President Kennedy announced the national goal of achieving a manned lunar landing within the decade. In support of this goal, Dr. Debus received approval to proceed with the design of the Spaceport. Construction began in 1962 at a site north and west of Cape Kennedy.

Four years of labor transformed north Merritt Island marshland into an operational base for Apollo-Saturn V space vehicles. This is Kennedy Space Center's Complex 39, which incorporates a mobile concept envisioned by Dr. Debus.

Under this concept, Apollo 11 was assembled and checked out in the protective environment of a building, then transferred to pad 39A for final servicing prior to flight. At the same time work continues on Apollo 12, being checked out in the Vehicle Assembly Building, and Apollo 13, being erected.

Thus the mobile concept allows an uninterrupted flow in the erection and checkout process. This increases the frequency of launches at two Apollo-Saturn V pads, and reduces costs.

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Development of the Spaceport was cited as the highlight of Dr. Debus' 23-year career in federal service by the National Civil Service League. He received the league's Career Service Award on June 13.

Since the construction of the Spaceport began, Dr. Debus has directed the launch of 20 Saturn I, IB and Saturn V rockets. These launches include all of the manned Apollo flights.

To accomplish the launches he supervised the building of an intergrated government-industry launch team. From a complement of 4,000 in 1962, this team has grown into an integrated force of 23,000 which today operates Kennedy Space Center.

Prior to transfer to NASA in 1960, Dr. Debus headed the Army's Missile Firing Laboratory at the Cape.

He directed the launch of the first U.S. ballistic missile, the Redstone, in 1953. In the 1950's, he also supervised development and construction of launch facilities at Cape Kennedy for Jupiter, Jupiter C, Juno and Pershing vehicles.

The Debus launch organization has conducted more than 150 launches of missiles and space vehicles. These include: the first U.S. earth satellite, Explorer I, Jan. 31, 1958 -- the first U.S. space probe to orbit the sun, Pioneer IV, March 3, 1959 -- the first manned Mercury flight, May 5, 1961.

Dr. Debus holds the Army's highest civilian decoration, the Exceptional Civilian Service Award. He has received the Space Agency's Outstanding Leadership Award. In 1965 he received the first Pioneer of Wind Rose Award by the International Committee of Aerospace Activities for contributions to launch technology and science.

In 1967, Dr. Debus was awarded an honorary Doctor of Laws Degree by Rollins College. He was also named co-winner of the American Astronautical Society's Space Flight Award for 1967.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

file copy

news release

RELEASE NO. KSC-342-69
FOR RELEASE Immediate

July 9, 1969

SPACEPORT WILDLIFE UNRUFFLED BY APOLLO 11 ACTIVITIES

KENNEDY SPACE CENTER, Fla.--Despite the heavy launch activity surrounding the Apollo 11 moon landing mission, the Spaceport's bird population remains relatively unruffled.

Neither the increase in traffic and people, the clatter of helicopters, or the noisy excursions of photographers appear to bother the birds. Even the roar of Apollo 11's mighty engines at liftoff is not expected to ruffle many feathers.

"The noise is infrequent and lasts only a few minutes at a time," says Hal O'Connor, manager of the Merritt Island National Wildlife Refuge. "Most people, except for a few nature photographers, keep to the roads and away from the birds."

The Refuge comprises over 45,000 acres of land and water selected for its value to America's wildlife population. Much of the acreage falls within the Spaceport's boundaries.

The Refuge is managed jointly by NASA and the U. S. Bureau of Sports Fisheries and Wildlife. Hunting and fishing is allowed, but strictly controlled.

Wildlife found on the Refuge consists of insects of just about every size and variety, amphibians including the alligator, and poisonous and non-poisonous reptiles. Deer, bear and panther are seen occasionally.

With the exception of the prolific insect, the bird colony is by far the largest of the Refuge's settlers, averaging over 200 different species, including the bald eagle. Of these, ducks make up the greatestcontingent with 22 separate species.

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Duck banding is of major concern to O'Connor and his colleagues. Along with hunters' surveys and aircraft surveillance, banding makes it possible to determine such things as migratory habits, population swings and north-south duck routes.

Young ducklings are banded periodically, usually during May and June, and again in late fall and winter. In fact, trapping and banding operations are scheduled within hours of the Apollo 11 launch.

"We'll be looking for ducks we missed during the last trapping," states O'Connor.

Although various trapping methods are employed by wildlife officials on the Refuge, the most effective are cannon netting and night lighting. The first method utilizes a cannon to project a 60 by 40-foot net, ensnaring hundreds of ducks at a time.

Night lighting is an ancient method originally developed by the Persians to net swimming ducks. It combines bright lights and loud noises which tend to immobilize the birds, allowing them to be netted easily. Refuge officers use carbon-arc lightning and the roar of airboat engines to upstage the Persians. The operation, conducted only on moonless nights, has proved highly successful.

Hand-held nets are used for night trapping, according to O'Connor. The nets, about three feet in diameter, are fastened to the ends of long poles. "They are very similar to the dip nets popular with Florida shrimpers," he explains.

After banding, the ducks are released. Anyone recovering a banded duck is asked to forward the time, place, and season of recovery, along with the name of the species, to the U. S. Fish and Wildlife Service, Washington, D. C.

Information forwarded is recorded and evaluated by authorities for conservation programs and as a basis for establishing hunting regulations.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-343-69
FOR RELEASE: Immediate

July 9, 1969

APOLLO 11 INTEREST HIGH AS LETTERS POUR INTO SPACEPORT

KENNEDY SPACE CENTER, Fla. -- A soaring interest in the July 16 launch of Apollo 11, which will carry American astronauts on a journey to the moon's surface, is reflected in a daily flood of mail arriving at the Kennedy Space Center.

Thousands of letters have been received during the past two months requesting information about the approaching flight, or wishing success for the mission.

Hundreds of letters are received from foreign countries, indicating worldwide interest in manned spaceflight.

Most of the correspondence comes from youngsters who express an avid interest in the United States space program.

An 11-year-old from Australia says that he is "very interested in the Apollo missions and cannot wait until July 16 when the Apollo 11 takes off for the landing on the moon."

This kind of sincerity is often evident in the letters sent by young people. Sometimes, in their enthusiasm to learn about space, comments will produce a note of humor.

"Send me one astronaut!" demanded an Oklahoma City lad, who further urged the Kennedy Space Center "not to delay".

A seven-year-old who lives in Cardiff, South Wales was a little less demanding when he wrote, "Can I rent a rocket and a launching pad...how much will it cost please?"

Since the Apollo 8 mission in December, when three American astronauts became the first men to orbit the moon, nearly 30,000 letters have been processed at the Spaceport.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-344-69
FOR RELEASE: Immediate

July 10, 1969

NEW FILM
AT NASA VISITOR CENTER

KENNEDY SPACE CENTER, Fla. -- A new NASA film, entitled "Green Light for Lunar Landing", is now being shown in the Visitor Information Center theatre at the Kennedy Space Center.

The 28 minute film features highlights of the Apollo 10 lunar orbit mission last May. It follows Apollo 10 through pre-launch preparation, launch, the lunar journey, and the recovery of astronauts Thomas Stafford, John Young and Eugene Cernan.

The color film highlights the television transmissions from space, including several minutes of film taken while the lunar module was nine miles above the moon's surface.

The presentation also shows Apollo 11 astronauts Neil Armstrong, Edwin Aldrin and Michael Collins during training exercises using scientific experimental equipment of the type to be deployed on the lunar surface.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-345-69
FOR RELEASE: Immediate

July 10, 1969

VIC ATTENDANCE TO SURGE FOR APOLLO 11

KENNEDY SPACE CENTER, Fla. -- Nearly 40,000 people are expected to attend lecture-demonstrations at the Kennedy Space Center's Visitor Information Center during the week of the Apollo 11 launch.

"We expect to have about twice the attendance we had at the time of the Apollo 8 launch, when we had our previous high," said William Nixon, acting chief of the Center's Educational Programs Branch.

Lecture-demonstrations have been drawing about 1300 people each day since the second week in June, the beginning of the summer vacation period.

They cover rocketry, propulsion, unmanned spacecraft and manned space flights, using models, photographs and actual equipment.

Programs are given daily for the general public. They are held every hour, beginning at 10 a.m., in the auditorium of the Visitor Information Center. At 8 a.m. and 9 a.m., special programs are presented for student groups and teachers attending educational workshops.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-346-69
FOR RELEASE: Immediate

July 10, 1969

KSC TEAM HEADED BY LAUNCH VETERANS

KENNEDY SPACE CENTER, Fla. -- A half-dozen first line KSC directors have participated in the evolution of the space program, from launching 30-pound satellites to 3,000-ton moon rockets.

The roots of U. S. space technology trace back to developmental firings of Redstone missiles in the early 50's, and to launching America's first earth satellite, Explorer 1, in 1958.

Led by Dr. Kurt H. Debus, Center Director, a group of rocket engineers first came to this area in 1952. Many stayed to become the nucleus of today's Spaceport team.

Among those who belong to the Redstone era are Rocco A. Petrone, Launch Operations Director; Raymond L. Clark, Director of Technical Support; Dr. Hans F. Gruene, Launch Vehicle Operations Director; Robert E. Gorman, Launch Support Operations Director, and Karl Sendler, Director of Information Systems.

Petrone's career in rocket development goes back to 1952 when he was assigned to the Redstone Arsenal. As a member of that developmental team, he was in the blockhouse when the first Redstone was launched in August 1953.

Petrone's first duty at KSC was in 1960 as Saturn Project Officer, on assignment from the Army. He was responsible for the planning, development and activation of Saturn launch facilities.

Following this, he became Apollo Program Manager, overseeing the development of Apollo Program launch facilities.

Petrone retired from the Army as Lt. Colonel in 1966, the same year he became Launch Operations Director.

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Raymond Clark, as Technical Support Director, is responsible for operation and maintenance of launch complex facilities, and for providing technical services related to launch activities.

Clark's first Army assignment in Florida was at Patrick Air Force Base in 1954. There he served as Senior Project Officer for the Redstone and Jupiter missile projects until 1957.

In July 1960, while on active duty as a Major, Clark was assigned to the Air Force Eastern Test Range as Chief of the Program Coordination Office of NASA's Test Support Office. In November 1961, he was named Special Assistant to the Director of KSC.

Clark was appointed to his present position in December 1964. He retired from the Army in 1965 with the rank of Lt. Colonel.

Dr. Gruene's responsibilities as Launch Vehicle Operations Director, include preflight testing, preparation and launch of Saturn rockets and the operation and maintenance of associated ground support equipment.

His first assignment in America came in 1945 as a guided missile design engineer at the U. S. Army's Ordnance Research and Development Facility at Ft. Bliss, Texas. He then became Chief of the Guidance, Control and Networks Section of the Missile Firing Laboratory in 1951, transferring to the Army Ballistic Missile Agency in 1956.

Dr. Gruene joined NASA's Marshall Space Flight Center in 1960, and served as Deputy Director of the Launch Operations Directorate, dividing his time between Huntsville and the Cape.

He was assigned to his present position in 1964, and moved to the Florida launch site permanently in 1965.

Support Operations Director, Robert Gorman, began his rocket career with the National Advisory Committee for Aeronautics at Langley Field, engaged in the design of wind tunnels, test fixtures and models.

Gorman joined NASA in 1952 as Deputy Chief of the Structural and Mechanical Engineering Branch of Launch Operations for the Marshall Space Flight Center. He served in that capacity until 1963, responsible for engineering and technical activities relating to launch operations.

Gorman has held his present position since 1963, providing direct support required for launch and testing operations for NASA elements at Cape Kennedy and the Spaceport.

Information Systems Director, Karl Sendler, directs the development and operation of data systems for preflight preparation, checkout and launch of space vehicles.

He has been associated with NASA's launch operations since 1960. Prior to his present assignment, Sendler was Associate Director for Instrumentation for the Launch Operations Directorate, and its Assistant Director for Instrumentation.

Sendler came to the United States at the close of the war to work as an electronic engineer for the Army at Ft. Bliss, Texas. In 1950 he was reassigned to the U. S. Army Ordnance Corps at Redstone Arsenal, then to the Missile Firing Laboratory in 1953.

Prior to joining NASA, Sendler participated in the launching of the first U. S. satellite and other space "firsts."

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

File copy LTS

news release

RELEASE NO: KSC-348-69
FOR RELEASE: Immediate

July 10, 1969

SPACE CENTER TO HOST ETHIOPIA'S HAILE SELASSIE

His Imperial Majesty Haile Selassie I, Emperor of Ethiopia, will tour the Kennedy Space Center and Cape Kennedy this week.

The Emperor's official party will be accompanied by William O. Hall, U.S. Ambassador to Ethiopia, and U.S. protocol chief Emil Mosbacher, Jr. Arrival time is 4:30 p.m., Thursday. They will be met by Dr. Kurt H. Debus, Kennedy Space Center Director, and Maj. Gen. David M. Jones, Commander of the Air Force Eastern Test Range.

No official functions are scheduled for the day of arrival.

Emperor Selassie will begin his official tour Friday morning. He will visit the Air Force Space Museum and NASA launch complexes on Cape Kennedy.

At the Kennedy Space Center, the Emperor will receive a special briefing on NASA facilities and missions by Rocco Petrone, KSC's Director of Launch Operations. His itinerary will include stops at the control center and assembly building at Launch Complex 39. At Pad A, he will view the Apollo 11 space vehicle being readied for launch July 16.

The Imperial party will depart the area for Washington Friday afternoon.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-386-69
FOR RELEASE: Immediate

July 18, 1969

WILDLIFE REFUGE AREA EXTENDED

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has extended its management agreement with the U.S. Bureau of Sport Fisheries and Wildlife to enlarge the Merritt Island National Wildlife Refuge.

The entire Refuge is located on the Kennedy Space Center.

Presently comprising 57,966 acres of land and water areas, the Refuge boundaries will be extended northward and southward to enclose a total of 83,796 acres.

In effect, the entire Space Center from the southern limits along the Barge Canal connecting the Indian and Banana Rivers will be included in the Refuge as far north as the Haulover Canal which links the Indian River and Mosquito Lagoon.

All of the built-up areas of the Center, including Launch Complex 39 utilized for the Apollo Saturn V space vehicles, will be incorporated within the Wildlife Refuge. The land and water areas are inhabited by many species of animals and birds. Up to 190 different varieties of birds have been identified including the rare bald eagle and peregrine falcon.

Dr. Kurt H. Debus, Center Director, said the expansion is in line with NASA policy to maintain insofar as possible the natural habitat of the national Spaceport.

Harold O'Connor, Refuge manager, pointed out that the public may continue to utilize the Refuge under guidelines published by the Bureau of Sport Fisheries and Wildlife for nature walks, fishing, and controlled waterfowl hunting during the open season for ducks.

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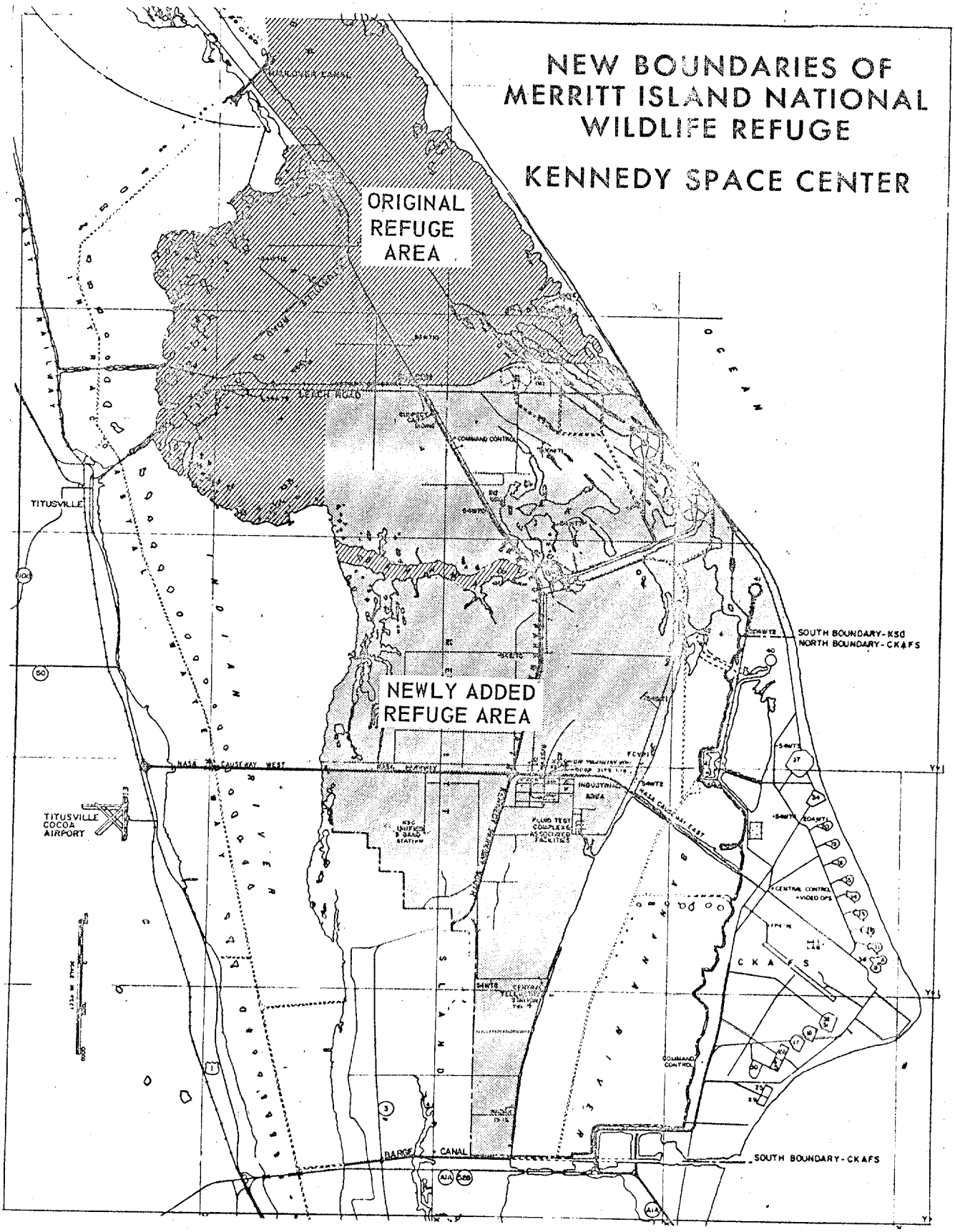
NEW BOUNDARIES OF
MERRITT ISLAND NATIONAL
WILDLIFE REFUGE
KENNEDY SPACE CENTER
ORIGINAL
REFUGE
AREA
NEWLY ADDED
REFUGE AREA
TITUSVILLE
TITUSVILLE
COCOA
AIRPORT
SOUTH BOUNDARY-KSC
NORTH BOUNDARY-CKAFS
SOUTH BOUNDARY-CKAFS
BARGE CANAL
NASA CAUSEWAY WEST
NASA CAUSEWAY EAST
INDUSTRIAL AREA
FLUID TEST COMPLEX & ASSOCIATED FACILITIES
CENTRAL CONTROL + VIDEO OPS
C K A F S
INDIAN RIVER
BANANA RIVER
INDIAN RIVER

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-388-69
FOR RELEASE: Immediate

July 19, 1969

TWO MILLIONTH VISITOR TAKES SPACEPORT BUS TOUR

KENNEDY SPACE CENTER, Fla. -- As the Apollo 11 astronauts made final preparations for their historic touchdown on the moon, the two millionth visitor to take the Kennedy Space Center public bus tour today was honored by Spaceport officials.

He was Everett Sandusky of Mascoutah, Illinois.

Accompanied by his wife, Majorie, and daughters Sherri, Debra and Janice, Sandusky was presented a large color photograph of an Apollo/Saturn V launch autographed by Kennedy Space Center Director Dr. Kurt H. Debus.

The presentation was made by Albert F. Siepert, Deputy Director for Center Management, in a ceremony at the Spaceport's Visitor Information Center.

Mrs. Sandusky, happy but visibly overwhelmed by all the attention, said she was "surprised and very excited" when told her husband was the two millionth patron on the Spaceport bus tours, now only three years old.

The combined Brevard County Chambers of Commerce and the Brevard Economic Development Commission were hosts for a program of dining, dancing and sightseeing to honor the Illinois family.

Trans World Airlines, which operates the Space Center tours for the National Aeronautics and Space Administration, presented a model of the Saturn V rocket and other gifts to the family.

Sandusky, who is a high school instructor in agriculture, and his family, are vacationing in Florida and plan to return to Mascoutah following their stay here.

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Highlight of the day for the Sanduskys was a visit to the launch pad where astronauts Neil Armstrong, Michael Collins and Edwin Aldrin began their lunar journey atop the 36-story Apollo/Saturn V moon rocket Wednesday, July 16.

The daily guided tours were inaugurated July 22, 1966. Visitors from all 50 states and more than 60 countries are included in the two million who have taken the tours since they began.

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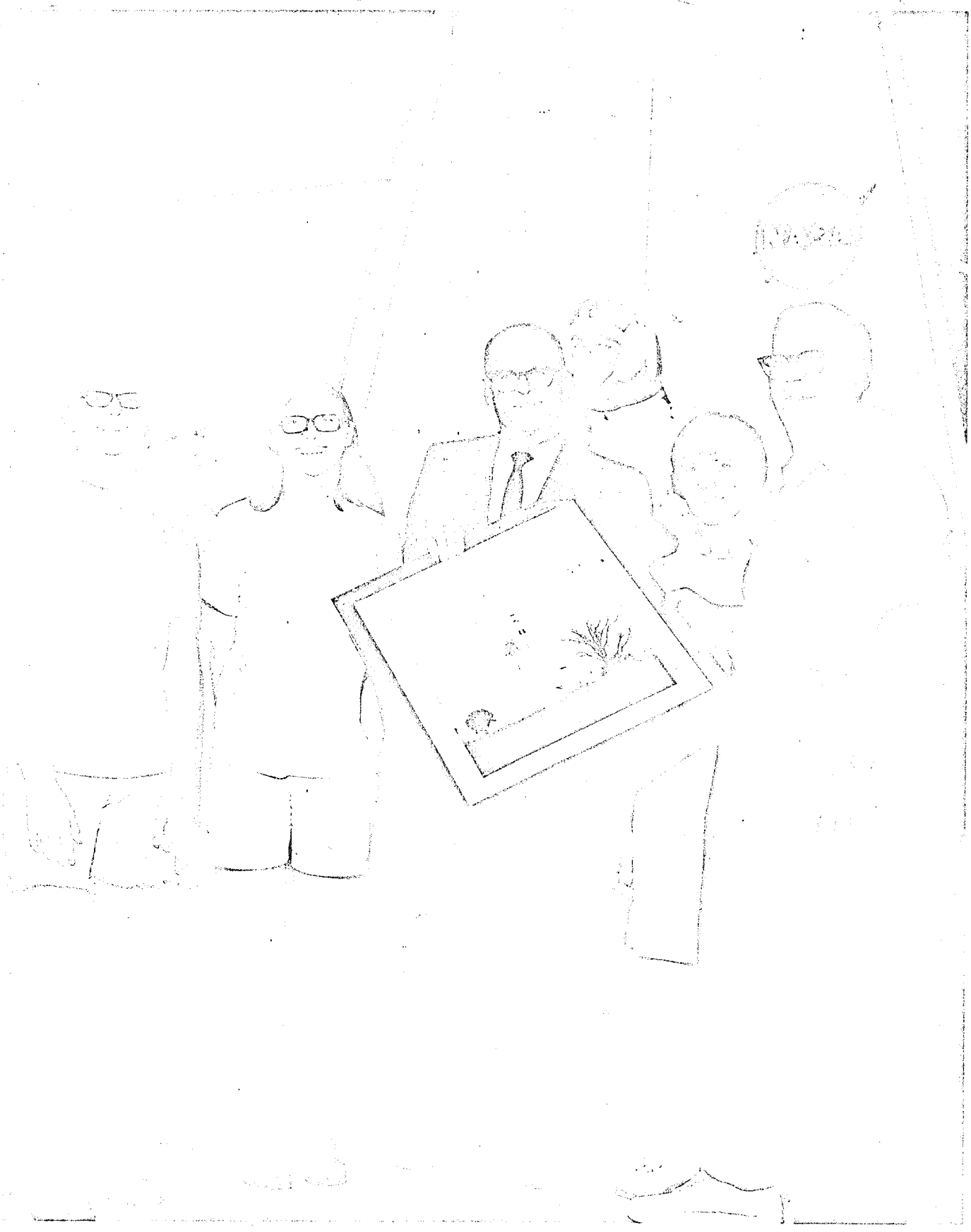

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-390-69
FOR RELEASE: Immediate

July 24, 1969

KENNEDY SPACE CENTER, Fla. -- Harold A. Johnson, an aerospace technologist at the John F. Kennedy Space Center, has been named to Who's Who in the South and Southwest for 1969-1970.

Johnson, a 1955 graduate of Glynn Academy, Brunswick, Georgia, is assigned to telemetry systems, planning and programs section, at the Spaceport.

Responsible for development and maintenance of telemetry software systems, Johnson joined the National Aeronautics and Space Administration at the Kennedy Space Center in 1966.

He is a 1960 graduate of the University of Georgia where he received a degree in physics.

Prior to joining NASA, Johnson taught physics at East Atlanta High School, and later was employed as a physist with the General Electric Company. From 1965 to 1966 he was a member of the science and technical center of the U.S. Materiel Command, Washington, D.C.

Johnson is a member of the American Physics Society.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-391-69
FOR RELEASE: Immediate

July 27, 1969

S-BAND SITE TALKS WITH LUNAR ROBOT

KENNEDY SPACE CENTER, Fla.,--The Apollo 11 splashdown at 12:50 p.m. Thursday brought KSC Mission Clocks to a halt at 8 days, 3 hours, 20 minutes and 42 seconds but the KSC Unified S-Band Site kept its gaze fixed firmly on the Moon.

Most Spaceport workers could relax as mission tension eased but the personnel at the S-Band Site continued their conversation with a robot astronaut resting near the Apollo 11 Tranquility Base.

The robot astronaut is the Passive Seismic Experiments Package activated by the Eagle crew on the moon early last Monday morning.

PSEP is a part of the Early Apollo Scientific Experiments Package (EASEP) and it was left on the moon to keep delicate instruments tuned in on the tremors of moonquakes or meteorite impacts.

The KSC Unified S-Band Site is a part of the world-wide network used by the Manned Spacecraft Center in Houston, Texas, to send commands to PSEP and receive data from the lunar seismic station.

"The whole station has been supporting it," said Jack Dowling, Goddard Space Flight Center, station manager. Downlink telemetry from the moon is received here and controllers also relay commands from MSC up to Tranquility Base. The moon can be in "sight" of the Site for up to 10 hours a day.

Lunar thumps and belly growls are picked up by PSEP's sensitive instruments and relayed back to Earth where they are recorded in the form of squiggles on waxed paper tapes.

Dowling said the quality of the PSEP signals received here was good but added that evaluation of their meaning is up to experimentors at MSC.

It was shortly after the Eagle crew deployed the PSEP that Mission Control advised: "Tranquility Base, this is Houston. The passive seismic experiment has been uncaged and we're observing short period oscillations."

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There are indications those "short period oscillations" were the footsteps of Astronauts Neil Armstrong and Edwin A. Aldrin Jr. as they neared the completion of their Extravehicular Activity.

Aldrin used a hammer to drive core tubes into the moon for core samples. Dr. Wilmot N. Hess, Director of Science and Applications, MSC, reported at a press conference that an earth observer "clearly saw on his seismometer the hammer hitting the core tubes and astronaut activity on the surface and we think probably also back inside the Lunar Module."

Dr. Gary Latham, Columbia University, the chief PSEP experimentor, noted in a Wednesday press conference:

"We do have events which are of great interest to us, at least one which we feel is of true seismic origin which is either a moon quake or an impact."

The PSEP clearly recorded the impact of the astronaut's Portable Life Support Systems (PLSS) as they were jettisoned onto the moon on Monday morning.

Later seismic data has been interpreted as attributable to venting of various systems aboard the descent stage of the Lunar Module left at Tranquility Base.

A thermal problem developed aboard PSEP after the Lunar Module's ascent stage lifted off with Armstrong and Aldrin Monday afternoon.

As Latham observed Wednesday: "We have already developed a thermal problem. The instrument is heating up beyond the predicted temperature increase...At this point we are simply hoping for the best and we feel that there is a reasonable chance at least that we may be able to continue recording through lunar noon."

One scientist has already drawn the conclusion that the moon is stratified or layered like the earth.

As the rest of the Spaceport relaxes from Apollo 11 mission tension, the KSC Unified S-Band Site continues to "talk" with the 112 pound PSEP left behind on Tranquility Base.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-392-69
FOR RELEASE: Immediate

July 26, 1969

Three ground control monkeys associated with the recent biosatellite primate flight which was terminated July 7, are dead.

They were humanely put to sleep July 8, 10 and 20 after developing conditions detrimental to their health.

The three monkeys were part of a four-monkey ground control group at Cape Kennedy, Florida where they were instrumented and experienced the same conditions, except for weightlessness, as the monkey in space.

The fourth monkey is alive and biosatellite officials report he is in good health.

A decline in the space monkey's condition prompted NASA officials to bring the animal back to earth about $8\frac{1}{2}$ days after launch June 28 from Cape Kennedy. However, the animal died about 12 hours after his space capsule re-entered the earth's atmosphere and about 9 hours after the capsule was opened and attempt made to save him.

The purpose in selecting five animals for flight preparation was to insure that NASA had the best possible flight candidates and backup animals.

In the final selection of the flight animal by a scientific and medical flight board, two were found to be completely acceptable while three showed conditions which made them marginalbly acceptable for flight.

Since four prepared animals remained after launch they provided control subjects for two of the investigators. The objectives of these control tests were met.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-393-69
FOR RELEASE: Immediate

August 1, 1969

KSC AAP MANAGER MORGAN PROMOTED TO BRIGADIER GENERAL

KENNEDY SPACE CENTER, Fla. -- Thomas W. Morgan, Manager of the Apollo Applications Program Office at the Kennedy Space Center, traded in his U.S. Air Force Colonel Eagle insignia Friday for the Star of a Brigadier General.

In ceremonies in the Headquarters Building attended by top KSC officials, Mrs. Morgan, assisted by KSC Director Kurt H. Debus, placed the stars on General Morgan's shoulders.

Dr. Debus said that it takes a man of great intelligence to attain the rank of General, a man with a driving force and great energy to build constructively on his way up.

"This is the type of man General Morgan is," he said. "The latter part of his career has been devoted to guided missiles and space flight. We are happy to have him with us and hope he will be around for quite some time."

General Morgan said: "This is a momentous occasion for my wife and myself. Thank you very much."

As Manager of AAP, General Morgan is responsible for plans to meet KSC's AAP responsibilities. These include checkout and launching of Saturn launch vehicles, an orbiting workshop and an Apollo telescope mount.

He is the primary point of interface for AAP functions with other NASA Manned Space Flight Centers and the Office of Manned Space Flight.

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General Morgan came to KSC from the Air Force's Manned Orbiting Laboratory Program at Los Angeles Air Force Station, where he served as Director of Operations from 1964 to 1967.

Prior to that assignment, he served as Chief of the Thor Launch Division, 6555th Aerospace Test Wing, Patrick Air Force Base, for four years and later as Deputy Commander for Space, 6555th Test Wing for an additional two years.

His last assignment at Patrick Air Force Base was as Vice Commander of the 6555th Aerospace Test Wing in 1963.

General and Mrs. Morgan and their seven children reside at Patrick Air Force Base.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-395-69
FOR RELEASE: Immediate

August 12, 1969

74 SUMMER AIDS PARTICIPATE IN KSC YOUTH EMPLOYMENT PLAN

KENNEDY SPACE CENTER, Fla.,--A recognition ceremony in the Kennedy Space Center's Training Auditorium at 2:00 p.m. Friday will culminate the activity for summer students employed by NASA/KSC under the President's Federal Summer Employment Program for Youth.

This program is designed to give young people an opportunity to build good work habits, continue with their education and discover the central role a job can play in their lives.

KSC Director Dr. Kurt H. Debus said: "Perhaps the most important meaning of summer employment can be found in what a young person can discover about himself in the world of business and industry."

There are 74 summer aids participating in the NASA/KSC program which includes such subjects as correspondence and filing, typing, techniques, telephone and mail services, vocabulary and word building, planning and keeping a budget, human relations and special emphasis on vocational education, job investigation and continuing education.

Brooks Johnson, Regional Coordinator in the President's Council on Youth Opportunity for the Great Lakes West Area and Washington, D.C., Area, will deliver the principal address during the recognition ceremony.

William S. Simmons, KSC Equal Employment Opportunity Coordinator, will preside at the ceremony. Other participants will include The Rev. James Buckingham, Tabernacle Baptist Church, Eau Gallie; Mayor Clyde Pirtle, Titusville, Mayor Arthur Tate, Cocoa, and James Cottingham, Florida State Employment Service.

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Invitations to the ceremony were sent to the Summer Aids' parents and to leaders and members of agencies and organizations of Brevard County who are interested in the training and progress of youth.

The summer aids at KSC included: Izora Addison, Bernestine Anderson, Thelma Andrews, Juanita Barton, Michael Beichner, Audrey Brightman, Cora Lee Brim, James Brooks, Deborah Brown, Glorida Bush, Lenora Cannon, Beverly Charles.

Delores Danzy, Linda Davis, Gerald Dixon, Laverne Dixon, John Drayton, Edwin W. Dublin, Frederick Dublin, Snowie Flowers, Clara Feliu, Floris Gantt, Voncille Graham, Oretha Green, Lucille Hagans, Mabel Hall, Frazier Hardy, Wanda Harms.

Eddie Harrison, Louis Highsmith, Rudolph Hollingsworth, Charles James, Bettye Jenkins, Jennette Johnson, Audrey Jones, Johnny Keitt, Peggie Kent, Joyce Lawton, Daniel Jones, Mamie Lewis, Betty Lyons, Linda Lyons, Sharon McNeal, Leonard Mitchell, Janice Moore.

Reginald Peters, Patricia Plummer, Betty Rainey, Patricia Roache, Andrew Roderick, Sharon Sandidge, Jon Shivers, McArthur Shivers, Howard Smith, Vernon Smith, Maggie Stokes, Maxine Taylor.

Veronica Taylor, Harriet Thompkins, Doretha Thomas, Annette Trueluck, Audrick Washington, Ervine Watts, Elizabeth Welch, Martha Welch, James Wilcox, Joseph Williams, Thomas Williams, Thelma Willis and Betty Ann Wilson.

Working at KSC's Western Test Range were Emma Castro, Antonia Terrones and Celia Walker, while Beverly Rivers was employed at Daytona Beach operations.

General Services Administration Motor Pool summer aids who participated in NASA/KSC training courses included Ronald Barton, Adam Copeland, Solomon Elmore and Calvin Ross.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-396-69
FOR RELEASE: Immediate

August 8, 1969

ELEVEN KSC EXECUTIVES, WIVES TO ATTEND PRESIDENT'S ASTRONAUT FETE

KENNEDY SPACE CENTER, Fla. -- Eleven executives and their wives will represent the Kennedy Space Center at the President's Dinner in Los Angeles Wednesday in honor of Apollo 11 Astronauts Neil Armstrong, Michael Collins and Edwin Aldrin.

The group will first fly to Houston where they will change planes for the trip to California.

The dinner will climax a full day of activities for the Apollo 11 astronauts and their wives, including celebrations in New York and Chicago.

Those attending from KSC will be Dr. and Mrs. Kurt H. Debus, KSC Director; Mr. and Mrs. Albert F. Siepert, Deputy Director, Center Management; Mr. and Mrs. Miles Ross, Deputy Director, Center Operations; Mr. and Mrs. Rocco A. Petrone, Director, Launch Operations.

Mr. and Mrs. Raymond L. Clark, Director, Technical Support; Mr. and Mrs. G. Merritt Preston, Director, Design Engineering; Rear Admiral and Mrs. Roderick O. Middleton, Apollo Program Manager; Mr. and Mrs. Walter J. Kapryan, Deputy Director, Launch Operations.

Dr. and Mrs. Hans F. Gruene, Director, Launch Vehicle Operations; Mr. and Mrs. John J. Williams, Director, Spacecraft Operations; and Mr. and Mrs. Paul C. Donnelly, Launch Operations Manager.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-397-69
FOR RELEASE: Immediate

August 8, 1969

DR. AND MRS. DEBUS HEAD KSC GROUP ATTENDING HOUSTON LUNCHEON

KENNEDY SPACE CENTER, Fla. -- Dr. and Mrs. Kurt H. Debus will head a group of 50 employees from the Kennedy Space Center who will attend the NASA-sponsored luncheon at the Rice Hotel in Houston Tuesday.

Attending the luncheon will be 325 NASA and Government personnel and 275 Apollo industry employees. There will be 54 astronauts, 100 from the Manned Spacecraft Center, 50 from KSC, 50 from the Marshall Space Flight Center, 30 from NASA Headquarters, 15 from Goddard Space Flight Center and 20 from the Department of Defense.

In addition to the Director and his wife, those attending from KSC include:

Albert F. Siepert, Deputy Director, Center Management; Miles Ross, Deputy Director, Center Operations; Rocco A. Petrone, Launch Operations (LO); Raymond L. Clark, Technical Support (TS); Rear Admiral Admiral Roderick O. Middleton, Apollo Program (AP).

G. Merritt Preston, Design Engineering (DE); Gen. Frederic H. Miller, Installation Support (IS); George A. Van Staden, Administration (AD); Gordon L. Harris, Public Affairs (PA); John P. Lacy, Chief Counsel; Walter J. Kapryan, LO; Grady Williams, DE; Edward R. Mathews, AP.

Walter P. Murphy, Executive Staff; Paul C. Donnelly, LO; Hans F. Gruene, Launch Vehicle Operations; John J. Williams, Spacecraft Operations; John W. King, PA; Robert E. Johnson, PA; Robert A. McDaris, Quality Assurance; John R. Atkins, Safety.

- more -

Karl Sendler, Information Systems (IN); Robert E. Gorman, Support Operations (SO); Philip Whitaker, AD; Ken C. Steel, AD; Cecil T. Deans, AD; C. A. Guthrie, AP; James W. Dalton, Apollo Applications Program; Raymond C. Daley, IS; Donald D. Buchanan, Design Engineering.

Robert M. Ferguson, DE; Norman M. Carlson, LO; Frank G. Bryan, LO; John D. Beeson, LO; John A. Hallmark, LO; William H. Schick, LO; Gordon E. Artley, TS; Peter A. Minderman, TS; Roger W. Noel, AD.

Glenn B. Jeffcoat, DE; James G. Lovan, Jr., IS; Alvie E. Yarbrough, LO; Gordon P. Conklin, LO; Remer C. Prince, LO; Joseph W. Hammond, Jr., TS; Mary Bray, AD; Violet Richman, LO; Ellen Horn, AP and Anne Stiltner, IS.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-398-69
FOR RELEASE: Immediate

August 12, 1969

SPACEPORT CONTRACTS AWARDED IN 15 STATES

KENNEDY SPACE CENTER, Fla., -- Business concerns in 15 states besides Florida shared in more than $2.5 million in contracts recently awarded by the John F. Kennedy Space Center.

The contracts, which totaled $2,775,890, called for products ranging from steel tubing and computer cards to air conditioning and computer systems or components.

Four contracts, for a total of $318,422, went to Florida companies.

The Florida contracts, the products they call for and their dollar amounts are:

International Business Machines Corp., Cape Canaveral: software for IBM 360 Mod 4 computer $95,500; Hewlett-Packard Company, Orlando: radio frequency generator for use in determining launch vehicle electromagnetic compatability $92,312; Chrysler Corporation: $80,620 for a comparative economic analysis of launch of intermediate vehicles; General Maintenance & Engineering Co., Inc., Cape Canaveral: $49,990 for an addition to a warehouse automatic sprinkler system.

Other contracts:

CALIFORNIA -- North American Rockwell Corporation, Downey: $230,588, to provide planning effort for launch operations in support of Apollo Applications Program, follow-on program to the lunar landing project; Statham Instruments, Inc., Oxnard: $45,300 for differential pressure transducers to measure pressures during rocket and ground support tests; Bell and Howell Company, Monrovia: $157,725 for differential pressure transducers; Ampex Corporation, Redwood City: $98,525 for replacement assemblies for repair of magnetic tape recording systems.

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DELAWARE -- E.I. du Pont de Nemours & Co., Inc., Wilmington: $135,457 for a solvent to flush Apollo spacecraft systems.

GEORGIA -- Tube Sales, Forest Park: $163,555, stainless steel tubing.

ILLINOIS -- Cook Electric Company, Chicago: $51,630, modules with arrester units to improve electrical protection at launch pads; Mystik Tape, Borden Chemical Divison, Northfield: $31,500, pressure sensitive tape.

LOUISIANA -- Chrysler Corporation, New Orleans: $64,080 for development of improved pressure switches.

MARYLAND -- Airflow Company, Gaithersburg, $30,965, air conditioning unit for launch test facilities.

MINNESOTA -- Fabri-Tek Incorporated, Minneapolis: $85,750 for integrated circuit core memories for computer display system.

NEW JERSEY -- Vitro Laboratories, West Orange: $160,272, electrical and electronic units for KSC timing and countdown system.

NEW YORK -- Hazeltine Corporation, Little Neck: $262,480, magnetic storage drum for use in telemetric systems; Fairchild Electro-Metrics, Amsterdam: $116,869 for an interference analyzer for making electromagnetic compatibility measurements.

OHIO -- Service Steel Division, Van Pelt Corp., Cincinnati: $45,300, stainless steel tubing for hydraulic system lines.

PENNSYLVANIA -- B & F Instruments, Inc., Cornwells Heights: $270,927 for an extension to direct current signal conditioning system at Launch Complex 39; Monitor Systems, Inc., Fort Washington: $85,733, digital logic cards for modification of data processing systems.

TENNESSEE -- Pulvair Corporation, Memphis: $48,801, coolant for electronic gear of the Apollo command and service module.

TEXAS -- Service Technology Corporation, Houston: $64,314 for a study to establish criteria for improved control valve in fluid systems supporting space launches; Westronics, Inc., Fort Worth: $160,597, analog strip chart recorders for use in launch complex firing rooms.

-more-

WASHINGTON -- West Coast Paper Co., Seattle: $64,500, nylon film for protective wrap around landing gear and spacecraft covers required during assembly and prelaunch operations.

WEST VIRGINIA -- Stainless Piping Supply Co., Charleston: $81,600, stainless steel tubing for hydraulic system lines.

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KSC

KENNEDY SPACE CENTER, FLORIDA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-399-69

FOR RELEASE: Immediate

July 8, 1969

RESTRICTIONS ON USE OF NASA INSIGNIA

KENNEDY SPACE CENTER, Fla. - - Use of astronaut badges, the NASA seal, NASA flags and NASA insignia is restricted to official purposes only, according to a policy directive released by NASA Administrator, Dr. Thomas O. Paine.

The astronaut badges, designed to commemorate each manned flight, may be used "only for such other official purposes as the Administrator or his designee may deem appropriate," according to Dr. Paine.

Since 1959, the official NASA seal has appeared chiefly on Government plaques, documents and publications to symbolize achievements and goals of NASA and the United States in aeronautical and space activities.

The NASA flag, authorized for NASA ceremonies and facilities, was established in 1960, and is always displayed with the United States flag occupying the position of honor.

Similar to the official Seal, but established for less formal use, is the NASA insignia which marks the agency's role in aeronautics and space. It is used on such NASA owned or associated property as vehicles and wearing apparel.

Any person who without proper authorization possesses or manufactures official NASA insignia, including imitations of such, is in violation of Federal statutes.

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KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-400-69
FOR RELEASE: Immediate

August 14, 1969

NASA APPOINTS FAILURE REVIEW COMMITTEE

KENNEDY SPACE CENTER, Fla.,--The National Aeronautics and Space Administration has appointed a failure review committee to determine why the Intelsat III F-5 communications satellite did not achieve its programmed orbit after launch from Cape Kennedy, Fla. on board a Delta rocket July 25.

Indications are that a malfunction occurred during third stage burn of the launch vehicle.

Chairman of the eight-man committee is M. L. Moseson of NASA's Goddard Space Flight Center, Greenbelt, Md. Other members are Alton E. Jones, Richard A. King and Edward A. Rothenberg, all from Goddard; Joseph G. Thibodaux, Jr., NASA/Manned Spacecraft Center, Houston; Leonard R. Piasecki, Jet Propulsion Laboratory, Pasadena, Calif., Robert L. Swain, NASA/Langley Research Center, Hampton, Va.; and Martin Votaw, Communications Satellite Corporation, Washington, D.C.

In addition to the regular committee, there will be observers from the U.S. Air Force; McDonnell/Douglas Astronautics, Santa Monica Calif.; Thiokol Chemical Corporation, Elkton, Md.; and NASA Headquarters, Washington, D.C.

Intelsat III F-5 was launched by NASA for the Communications Satellite Corp. in behalf of the International Telecommunications Satellite Consortium (INTELSAT).

Everything appeared normal in the flight through second engine burnout. No signals were returned from the third stage as it does not transmit telemetry.

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Several hours after third stage ignition when the spacecraft was to have been placed into the correct transfer orbit, tracking stations in Australia, Italy and the United States failed to acquire the spacecraft at the proper time. Radar data later showed the satellite and third stage to be in a low orbit ranging from about 175 to 3400 miles instead of the intended orbit of 175 by 23,000 miles.

Because of the low orbit, it was not possible to inject the spacecraft into the intended synchronous orbit.

It will be the job of the committee to determine the cause of the failure and recommend any corrective actions that may be necessary.

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#72

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-401-69
FOR RELEASE: Immediate

Administration is assigning seven of the [illegible] astronauts to its astronaut program and an eighth to non-astronaut duty in its Flight Crew Operations Directorate. Effective date of the new assignment has not been set.

The seven assigned to the NASA Astronaut Program are:

Major Karol J. Bobko, USAF, 32, an Air Force Academy graduate from Seaford, New York.

Lt. Commander Robert L. Crippen, US Navy, 32, Porter, Texas.

Major Charles G. Fullerton, USAF, 31, Portland, Oregon.

Major Henry W. Hartsfield, Jr., USAF, 35, Birmingham, Ala.

Major Robert F. Overmyer, US Marine Corps, 33, Westlake, Ohio

Major Donald H. Peterson, USAF, 35 US Military Academy graduate from Winona, Mississippi.

Lt. Commander Richard H. Truly, US Navy, 32, Meridian, Mississippi

Three of the group will complete studies for graduate degrees before assuming their new astronaut duty: Major Bobko, master's degree in astrophysics, University of California; Major Hartsfield, master of science, University of Tennessee; and Major Peterson, doctorate in physics, University of Tennessee.

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Lt. Col. Albert H. Crews, USAF, from Alexandria, Louisiana, has been assigned to the NASA-MSC Flight Crew Operations Directorate. In addition to his MOL training, Col. Crews had also trained for space flight in the Air Force Dyna Soar Program.

Three groups of pilots had been selected for the MOL program in 1965, 1966 and 1967. The crew members, in addition to their flight training, also performed research and development engineering duty. The program was terminated on June 10.

The seven additions will bring the total number of active NASA astronauts to 54.

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#22

KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-402-69
FOR RELEASE: Immediate

August 19, 1969

LEE NAMED APOLLO MISSION DIRECTOR

WASHINGTON, D.C.,--Chester M. Lee has been named by the National Aeronautics and Space Administration as Apollo Mission Director for manned Moon-landing flights, including the Apollo 12 mission scheduled for launch on November 14.

He succeeds George H. Hage, who has been elected vice president for product development of the Boeing Company, Seattle, Wash. Hage, who has also been Deputy Director of the Apollo Program, was employed by Boeing as engineering manager of the Lunar Orbiter program before coming to NASA in 1967.

Lee, a retired U.S. Navy captain, has been Assistant Apollo Mission Director since August 1966.

He was born in Derry, Pa., in 1919 and graduated from the U.S. Naval Academy in 1941 with a bachelor of science degree in electrical engineering. In addition to sea assignments he served with the Directorate of Research and Engineering, Office of Secretary of Defense, and the Navy Polaris missile program. He joined NASA in 1965 as Chief of Plans, Mission Operations Directorate, Office of Manned Space Flight.

Mr. and Mrs. Lee live in McLean, Va. They have four children, including a son at the Naval Academy.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.3
#72

news release

RELEASE NO: KSC-403-69
FOR RELEASE: Immediate

August 22, 1969

PETRONE APPOINTED APOLLO PROGRAM DIRECTOR

KENNEDY SPACE CENTER, Fla. -- Rocco A. Petrone, Director of Launch Operations at the John F. Kennedy Space Center, today was appointed Director of the Apollo program. He succeeds Lt. Gen. Samuel C. Phillips who assumes command of the Air Force Space and Missile System organization on Sept. 1.

Walter J. Kapyran, Deputy Director of Launch Operations, succeeds Petrone. Both NASA appointments also are effective Sept. 1.

As director of the Apollo Program Office in Washington, Petrone assumes overall responsibility for direction and management of the Apollo manned space flight program.

Petrone, 43, came to the Kennedy Space Center in 1960 on loan from the U.S. Army, assigned as the Saturn Project Officer.

He later became the Apollo Program Manager, responsible for the planning, development and activation of all launch facilities for the Apollo program. Following this, he was assigned as Launch Operations Director in 1966.

Petrone, who was born in Amsterdam, N.Y., graduated from the U.S. Military Academy in 1946 and served in Germany from 1947-1950. He then resumed his studies at the Massachusetts Institute of Technology where he received a masters degree in mechanical engineering in 1951. In 1952 he was awarded a Professional Degree in Mechanical Engineering. In 1969 he was awarded an honorary Doctor of Science degree by Rollins College.

Petrone's extensive career in rocket development began shortly after graduation from MIT when he was assigned to the Army's Redstone Arsenal,

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Huntsville, Ala. He participated in the development of the Redstone, the nation's first ballistic missile, and was in the blockhouse at Cape Canaveral as a member of the Missile Firing Laboratory when the first Redstone launching took place in August, 1953.

He was then detailed to the Army General Staff, Pentagon, Washington, D.C. from 1956 to 1960, where he was assigned duties in the field of guided missiles.

He retired from the U.S. Army in June, 1966.

Petrone has received many awards, including the NASA Exceptional Service Award in November, 1968, for the direction of the successful checkout and launch of Apollo 7, the first three man mission into space; and the NASA Distinguished Service Medal, the Agency's highest award, in January, 1969, for the direction of the checkout and launch of Apollo 8, the first manned mission to the moon.

Petrone is a student of the Civil War and has an extensive library on the subject. He is also interested in athletics and played for the West Point football teams during the era of All Americans Felix "Doc" Blanchard and Glenn Davis.

He and his wife Ruth reside in Cocoa Beach, Fla. They have one son, Michael, age 5, and three daughters, Theresa, 12, Nancy 10 and Katheryn, 7.

Prior to assuming his duties as deputy to Launch Operations Director Petrone, Kapryan, 49, was Assistant Apollo Spacecraft Program Manager at KSC. During the early phases of the Gemini program, Kapryan was responsible within the requirements for spacecraft checkout equipment to be located at Kennedy Space Center. He participated in the preparation and countdown of all 10 manned Gemini flights as well as the Apollo/Saturn IB and Saturn V missions.

Kapryan's first assignments with NASA were with the Langley Research Center, joining that organization in September, 1947, while Langley was a part of the National Advisory Committee for Aeronautics. He joined the NASA Space Task Group at Langley in March, 1959. Shortly thereafter he was appointed project engineer for the Mercury Redstone I spacecraft and came to the Cape in 1960 with that spacecraft.

Kapryan was born in Flint, Mich. He was raised in Detroit where he graduated from Denby High School in 1938.

Kapryan attended Wayne University in Detroit prior to entering the Air Force in 1943 where he became a first lieutenant as a B-29 flight engineer. He has received several NASA awards and honors, among them a Superior Achievement Award in 1965 for his contribtions to the success of the Gemini Program, and in January, 1966 he received the Group Achievement Award for his part in the success of the Gemini 7/6 mission.

He resides in Indialantic with his wife Eloise and their youngest daughter, Vicki. The Kapryans have a married daughter, Mrs. Charles Michulka, who lives in Houston.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

#72

news release

RELEASE NO: KSC-404-69
FOR RELEASE: Immediate

August 22, 1969

STATEMENT BY DIRECTOR DR. KURT H. DEBUS TO KENNEDY SPACE CENTER AND CONTRACTOR EMPLOYEES

"It is with great pleasure that I announce the selection of Dr. Rocco A. Petrone to succeed General Samuel Phillips as the Apollo Program Director in Washington. The appointment by the NASA Administrator, Dr. Thomas Paine, upon recommendation of his Associate Administrator for Manned Space Flight, Dr. George Mueller, becomes effective September 1st. General Phillips will return to the Air Force that day.

"I know that the entire Center organization shares my pride in the selection of our Launch Director to this key position in the national manned space flight program. Many of you have worked closely with Dr. Petrone since he joined the team in 1960 and have come to respect his outstanding abilities. He played a vital role in the design, construction and outfitting of our Saturn launch facilities. Subsequently he became the first KSC Apollo Program Manager and served in that position during the years when we were building up the organization. His service to the program as Launch Director has been so superb that he was, in the opinion of Dr. Mueller and Dr. Paine, the logical candidate to take over management of Apollo for the continuing lunar exploration missions.

"He leaves the Center at a time when Apollo has reached full maturity and the joint efforts of thousands of people attained the anticipated climax with the success of Apollo 11.

"While his departure will separate him from friends and colleagues here, the nature of his new assignment is such that he will always be close to KSC and its people. I know that you join me in wishing him Godspeed and every success.

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"Fortunately, we have another outstanding manager whom I have selected to succeed Dr. Petrone as Director of Launch Operations. Walter J. Kapryan, who has served as his Deputy with great distinction, has accepted the position of Launch Director. Mr. Kapryan has been with NASA for 10 years and occupied key positions during both the Mercury and Gemini programs before taking up his important duty in Apollo. He compiled a brilliant record throughout the manned space flight programs and is uniquely qualified to lead the Government-industry launch organization.

"I ask that you give hime the same total cooperation which has always been the fundamental policy of this Center."

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KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

#72

news release

RELEASE NO: KSC-407-69
FOR RELEASE: Immediate

August 28, 1969

MATHEWS TO REPLACE MIDDLETON AS KSC APOLLO PROGRAM MANAGER

KENNEDY SPACE CENTER, Fla.,--Rear Admiral Roderick O. Middleton, USN, will leave his position as Apollo Program Manager for this Center, to resume sea duty with the Navy in mid-September.

His deputy, Edward H. Mathews, will succeed him.

Admiral Middleton joined the KSC staff in August 1967 from NASA's Office of Manned Space Flight in Washington, D.C. where he served as Deputy Director, Mission Operations and as a mission director in the Apollo program. He was assigned to NASA in October 1965.

Prior to his NASA assignment, Admiral Middleton was commanding officer of the USS Little Rock and the USS Observation Island, chief of staff of Carrier Division 14 and commander, Destroyer Divison 142. The Observation Island supports Polaris submarine activities on the Eastern Test Range.

At the start of NASA's Mercury Program he commanded the destroyer division whose flagship, the USS Noah, recovered Astronaut John Glenn and his Friendship 7 spacecraft February 20, 1962, after Glenn became the first American to orbit the Earth.

Admiral Middleton is a native of Pomona, Fla. He attended Florida Southern College and the U.S. Naval Academy. Mrs. Middleton is the former Miss Ethel Bellows of Norfolk, Va.

Mathews has been deputy Apollo Program manager since August 1967. Prior to that assignment he was Chief of the Saturn Systems Office at Kennedy Space Center. He came to the Cape in June 1958 with the Missile Firing Laboratory, Army Ballistic Missile Agency. He received the Army Achievement Award for his work as Project Engineer on the Pershing Missile. In 1960 he

was appointed to the Project Coordination Staff of the Launch Operations Directorate, NASA and has held various management assignments at Kennedy Space Center since that time.

Mathews obtained a Bachelor of Civil Engineering degree at George Washington University, Washington, D.C. in 1952. He received advanced training in electronics and Fighter Fire Control Systems while in the Air Force.

Mathews was born in Humphrey, Arkansas, August 26, 1929. He is a member of the American Ordance Association. He lives in Merritt Island with his wife, Sally, and three sons, Bruce, Brian, and Mark. His interests include boating, gardening, and the Boy Scouts.

Admiral Middleton will become commander, Cruiser Destroyer Flotilla 12 in early October. CDF-12 has its home port at U.S. Naval Station, Mayport, Fla.

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KSC

KENNEDY SPACE CENTER, FLORIDA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

LA. 5
#72

news release

RELEASE NO: KSC-408-69

FOR RELEASE: Immediate

August 29, 1969

KSC DIRECTOR THANKS DONORS TO HURRICANE RELIEF CAUSE

KENNEDY SPACE CENTER, Fla.,--Dr. Kurt H. Debus, Director of the Kennedy Space Center, Friday thanked Spaceport employees for their response in helping victims of Hurricane Camille in the Mississippi Test Facility area.

Dr. Debus reported:

"We shipped 16 tons of foodstuffs, clothing, bedding and other supplies in Government trucks. A check in the amount of $1,083.96 was air mailed to the area relief chairman.

"I want you to know, too, that with assistance of the U.S. Air Force and other agencies, KSC airlifted more than 5,000 typhoid vaccine doses August 22 in response to an urgent plea from the medical relief element."

Dr. Debus said special thanks were in order for those who promptly and effectively collected, packaged and shipped the contributions.

"I know that our colleagues in MTF and their neighbors of the Gulf Coast will be grateful for your assistance."

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SEP 9 1969 #72

news release

RELEASE NO: KSC-410-69
FOR RELEASE: Immediate

September 5, 1969

SPACEPORT AWARDS CONTRACT TO PENNSYLVANIA FIRM

KENNEDY SPACE CENTER, Fla.,--The John F. Kennedy Space Center has awarded a $30,034 contract to a Pennsylvania firm, Amp, Inc., of Harrisburg.

The contract provides for coaxial patch panel items used in the telemetry system required in unmanned satellite launches.

KSC is the major launch center for manned and unmanned missions in the nation's program of space exploration.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-415-69
FOR RELEASE: Immediate

September 17, 1969

"FOOTPRINTS ON MOON" WORLD PREMIERE SHOWING SET FRIDAY IN COCOA BEACH

KENNEDY SPACE CENTER, Fla.,--Twentieth Century Fox will hold the world premiere of "Footprints on Moon -- Apollo 11" Friday evening at the Cocoa Beach Theater.

A reception will be held in the lobby at 8:00 p.m., followed at 8:30 p.m. by the showing of the 97-minute color documentary.

Dr. Kurt H. Debus, Director of the Kennedy Space Center, will speak briefly prior to the premiere showing. The film is narrated by Dr. Wernher von Braun, Director of the NASA Marshall Space Flight Center, Huntsville, Alabama.

From Saturday through Tuesday night, the general public will be able to see the film at regular movie prices.

For the premiere, each of those attending will pay $2.50 and the proceeds will go to the Apollo 10 Astronaut Scholarship Trust Fund.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

#72

news release

RELEASE NO: KSC-416-69
FOR RELEASE: Immediate

September 17, 1969

KSC GATOR IN RESIDENCE GETS NAME

KENNEDY SPACE CENTER, Fla.,--Namelessness, anonymity or lack of identity can be shattering to the ego and a three-foot gator in the pond of the KSC Headquarters Building has been spared this shock as the result of a Name the Gator contest among Spaceport personnel.

"Kasey" was the name selected for the bashful saurian, one of two placed in the pond by the U.S. Fish and Wildlife Service about six weeks ago as part of a program to restore the pond's natural ecology.

The winning name was suggested by four KSC employees: Danny Hilburn, McGregor-Werner; Mildred Ross, NASA Administration; W.N. Sandusky, General Electric, and B. L. Coleman, Boeing.

The four winners were awarded a set of 10 color lithographs on the Apollo manned lunar landing program and a copy of the colorful brochure "In This Decade."

Kasey, now officially KSC's 'Gator-in-residence, had become a popular lunchtime attraction for those eating in the Headquarters Building cafeteria. But, despite all the easy familiarity between 'gator and the KSC employees who shared their lunches with him (her ?), the alligator lacked a name.

That hurdle between saurian-homo sapiens coexistence has since been solved by the "Name the Gator" contest.

The other 'gator has since disappeared and - in absentia - was given the name "Gone Gator."

Other names in the top ten considered by an eight-member committee were Ollie Gator, Tranquility, Little Dipper, Apollogator, Gordo Gator, K-Cee Gator, Lunchtime Louis, KaSeCee and Moocher.

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Another step towards restoring the pond's ecology was taken recently when the U. S. Fish and Wildlife Service placed bream, bass, turtles and even an albino catfish in the pond on the scenic mall in front of KSC Headquarters.

Hal O'Connor, Manager of the Merritt Island National Wildlife Refuge, stressed that Kasey, despite his many sterling qualities, is not to be treated as a pet.

"You have nothing to fear as long as you don't get too close or try to pet him," said O'Connor.

Kasey continues to be an attraction and has apparently developed a built-in clock which brings him to the surface of the pond with eyes cast toward the Headquarters Building as lunch time nears.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SEP 18 1969

news release

RELEASE NO: KSC-417-69
FOR RELEASE: Immediate

September 18, 1969

HOCK TO SPEAK TO PUBLIC RELATIONS ASSOCIATION AND PRESS CLUB

KENNEDY SPACE CENTER, Fla.,--Robert C. Hock, Deputy Manager of the Apollo Applications Program for KSC will be the speaker at a combined meeting of the Cape Kennedy Public Relations Association and the Canaveral Press Club, to be held Thursday noon, September 25 at Georges Restaurant in Cape Canaveral.

Hock has an extensive background in nuclear engineering and rocket propulsion. He retired from the Air Force in April 1966 and went to work for NASA in May of that year as Chief of the Advanced Programs Office. In this capacity he had responsibility for KSC activities in the Apollo Applications Program, advanced planning for space station, lunar and planetary missions and for supporting development. When the Apollo Applications Program Office was organized at KSC in 1967 he was appointed Deputy Manager.

While on active duty with the Air Force in 1962, Hock was assigned to NASA at Cape Kennedy as Program Manager for the Reactor In Flight Test (RIFT) Nuclear Rocket Program, where he served until 1964.

Hock holds a Bachelor of Science degree in mechanical engineering from Georgia Institute of Technology and a Master's degree in Nuclear Engineering from North Carolina State.

He lives in Satellite Beach with his wife and family.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-418-69
FOR RELEASE: Immediate

September 19, 1969

KSC REQUESTS PROPOSALS

KENNEDY SPACE CENTER, Fla.,--The National Aeronautics and Space Administration has authorized the John F. Kennedy Space Center to issue a Request for Proposal for Detailed Engineering and Drafting Support Services to support the Directorate of Design Engineering.

This procurement will provide for preparing detailed designs, performing field site surveys, field liaison engineering, field engineering, and operating and maintaining an engineering documentation center. This competitive procurement will be for one year with four additional one year options.

There has been a significant decrease in the design engineering work load as a result of the completion of the Kennedy Space Center's launch facilities used in the successful lunar landing. This provides an opportunity for the Center to utilize its in-house engineering capability to perform conceptual and other original design engineering in future program developments using the future contractor effort in support.

The services to be provided are a consolidation of portions of work presently being performed by four separate contractors. The reduced work load following the manned lunar landing and the expected economies of dealing with one rather than several engineering design support contractors were taken into account in the projected staffing reductions Dr. Debus recently reported to the community as a part of the phasedown in the number of Apollo launches.

The release date for the Request For Proposal will be on or about September 19, 1969.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SEP 30 1969

2A.3 #72

news release

RELEASE NO: KSC-426-69
FOR RELEASE: Immediate

September 28, 1969

BREVARD APOLLO 11 IMPACT IMPRESSIVE

KENNEDY SPACE CENTER, Fla.,--The launch of the Apollo 11 lunar landing mission last July 16 drew an estimated 750,000 visitors to Brevard and yielded both tangible and intangible benefits at a minimum of cost.

This is among the conclusions in "The Impact of Apollo 11 on Brevard County", a document prepared by the Brevard County Planning Department at the request of NASA's Kennedy Space Center.

A dollars and cents assessment of the immediate economic impact of the three-day influx of visitors for the Apollo 11 mission was not achieved but the report noted:

"Overall, Brevard County handled the Apollo 11 moon launch extremely well. The costs were minimal, no overtime was needed, no temporary employees were needed, crimes and accidents were low.

"Measureable benefits from the launch were not as great as expected, but far exceeded the cost. Although measureable benefits were concentrated in certain sectors such as hotel-motel revenue, restaurant sales and gasoline sales, other areas also benefited, but not to the extent the major sector did."

And all the benefits will not have accrued during the July 14-15-16 period of tourist influx.

"There are many intangible benefits caused by Apollo 11 such as goodwill from other Americans, future in-migration, possible return visits from tourists, worldwide news coverage and many others. Although no monetary benefit can be attached to these intangibles, Brevard County could and should benefit greatly from them in the future."

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The report estimates the number of those viewing the Apollo 11 launch at one million - three quarters of them visitors. The surge began on the weekend preceding launch day - Wednesday, July 16 - with the major part of the influx arriving on July 14 and 15 and a final spurt on launch day morning.

The greatest economic impact of Apollo covered a three day period and the impact varied greatly with location.

"Titusville and Cocoa were the areas which had the greatest impact," the report concludes. "Since the impact only covered a three day period, increased sales were primarily reflected in North and Central Brevard and for those businesses located on major arteries leading into the county."

Location was given as a basic factor in spending "because most tourists came to see the Apollo 11 launch and not to tour the area which would have resulted in an increased spending for other portions of the area."

Impact also depended upon the nature of the facility; "The smaller, second class establishments were helped more than the well known establishments.." The report explained that the better known establishments were generally occupied and "the second class motels, hotels and restaurants with excess capacity were helped most by Apollo 11."

One of the major categories of increased spending was lodging. Brevard motels and hotels were filled to capacity and the large spin-off went outside Brevard - especially to Vero Beach and Orlando.

But some motels on Cocoa Beach were hurt by the Apollo 11 shot and this was attributed primarily to news stories of the massive crowds expected in the county for the launch.

"Many visitors that would have come for the moonshot were scared off and it is believed that some tourists that would have stayed on Cocoa Beach decided to go elsewhere because of erroneous reports about the masses in the area. One week after the shot, motel occupancy on the beaches was still below normal for this season of the year."

Traffic counts made on major arteries during the three-day impact period ran roughly double the normal number of vehicles and restaurant, grocery gasoline sales increased sharply in the areas where tourists gathered.

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"The demand for buses and rental cars so exceeded supply that business in these fields was affected in much of Florida. Airport operations in the county expanded to several times greater than normal. Police and public works personnel put in 12 to 16 hours each day as crowds continued arriving day and night."

Restaurants recorded the largest increase of any retail activity with restaurants reporting increases ranging from 10 to 75 per cent above normal. Location appeared to be the major factor. The Apollo 11 visitors apparently had plenty of money to spend:

"The finer restaurants did well everywhere. Expensive restaurant sales averaged an increase of 40 to 65 per cent with medium priced restaurants and drive-ins increasing 20 to 50 per cent."

Though the crowds were hungry, they were "dry" or intent on remaining sober:

"Sales in bars and local lounges remained about the same with small increases - generally due to the makeup of the tourist group. However, motel and hotel lounges which had primary contractors and news media personnel as guests reported the largest increase in sales. Package store sales also increased in Titusville and Cocoa."

Convenience stores in the KSC area reported increases in cigarette, soft drink, beer and small food item sales and some supermarkets and shopping centers reported small sale increases.

"Lookers" thronged the shopping centers, "attributed to the lack of entertainment facilities in the area" but sales increases amounted to only about 2 per cent.

Air travel facilities logged significant gains. At Cape Kennedy Regional Airport, the July 1969, passenger total was 27,007, an increase of 4,836 or 22 per cent over July for the previous year. About 99 per cent of the increase arrived on July 14, 15, 16 - the launch impact period.

Air operations at TICO Airport were up 53 per cent over the same month for the preceding year with 1,500 of the 2,000 increase taking place from July 14 - 16.

"All car rental companies within 100 miles of Brevard County were affected by Apollo 11" as demand exceeded supply. The demand was so great that some cars from used car lots and car dealership demonstrators were rented.

Family-oriented attractions also benefited. The TWA-NASA Tour of KSC and Cape Kennedy set new peak records of 8,100 and 8,207 on July 14 and July 15 respectively (31 per cent above normal). The Real Eight Museum in Cape Canaveral has a normal attendance of 1,000 per week but this soared to 2,900 during the week of the launch.

"It is believed that the Apollo 11 mission contributed much to Brevard County," concludes the report. "Some can be measured, others cannot. However, if circumstances had been different, we think Brevard could have benefited more."

The report, prepared by County Planning Director Jack Glatting, Research Director Kerry F. Skinner and Planning Intern Paul D. Brophy, offered a number of suggestions to enhance the benefits to the county from future manned flights.

These include more effective advertising, making future missions more of an educational venture and the coordination of tours to other state tourist attractions to induce tourists to stay longer in the county.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-427-69
FOR RELEASE: Sept. 26, 1969

AEROSPACE ADVISORY PANEL MEETS AT KSC

KENNEDY SPACE CENTER, Fla.,--The NASA Aerospace Safety Advisory Panel met here Thursday and Friday for a familiarization briefing on Spaceport operations.

Panel chairman is Dr. Charles D. Harrington, president of Douglas United Nuclear Inc. Dr. William A. Mrazek, Marshall Space Flight Center, serves the panel as a consultant.

The briefing session was conducted by Dr. Kurt H. Debus, KSC Director. Other KSC officials making presentations included C.A. Guthrie, Chief, Apollo Program Control Office; Robert E. Moser, Manager, Test Planning Office, Launch Operations; Don Phillips, Launch Operations; Ted L. Oglesby, Launch Vehicle, Test and Operations Management Office.

Other KSC officials in attendance included Walter J. Kapryan, Director of Launch Operations; E. R. Mathews, Apollo Program Manager; G. Merritt Preston, Director, Design Engineering; F. H. Miller, Director of Installation Support; John Williams, Director of Spacecraft Operations; Raymond L. Clark, Director of Technical Support; Dr. H. F. Gruene, Director of Launch Vehicle Operations, and John R. Atkins, Safety Director.

The NASA Aerospace Safety Advisory Panel is responsible for the review of safety studies and operational plans and study of potential or existing hazards connected with facilities or operations.

The group toured the Spaceport Thursday afternoon and met in executive session on Friday.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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#73

news release

RELEASE NO: KSC-428-69
FOR RELEASE: Sept. 26, 1969

FUTURE OF SPACE PROGRAM DISCUSSED

KENNEDY SPACE CENTER, Fla.,--A glimpse of the space program the United States may have over the next 20 years was spelled out here today for top members of the KSC government/industry team.

The look into what the future of space may hold was unfolded by Dr. George E. Mueller, head of the manned space flight program for the National Aeronautics and Space Administration.

Dr. Mueller told the group, in an annual get-together in the Spaceport's Training Auditorium, details of the program outlined by the President's Space Task Group. He was introduced to the group by Dr. Kurt H. Debus, Director of KSC.

He said the suggestions made to the President lay solid foundations for the years ahead and, if adopted, would enable the country to explore the entire solar system.

One of the program's primary aims, he said, is to capitalize on the same capability that enabled America to land on the moon using the Saturn V launch vehicle and the Apollo spacecraft.

The Apollo Applications Program will begin its flight activity with an orbiting workshop scheduled for flight in 1972.

Among other recommendations of the Space Task Force are a space station which would accomodate 12 people and later space stations carrying up to 100 people in earth orbit.

Mueller urged development of a nuclear shuttle for use in earth and lunar orbit, part of a transportation system that would increase man's capability in the exploration of space.

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These building blocks are designed to lead this country to manned landing on Mars in the 1980s.

The report is now in the hands of President Nixon who will make his recommendations to Congress.

Dr. Mueller said the coming challenge to government/industry managers at KSC is "how to make our manhours more productive...to get more space flights for the dollar."

He expressed the hope that the future KSC manpower levels will continue at about the levels anticipated by the end of fiscal 1970.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

W 2A.3 #73

news release

RELEASE NO: KSC-430-69
FOR RELEASE: October 1, 1969

KSC BACKGROUND ON COMPLEX 36

The high-energy Atlas Centaur launch vehicle has played a major role in the United States' unmanned exploration of space. Launched from Cape Kennedy's Complex 36 by the Kennedy Space Center's unmanned launch organization, it has sent soft-landing Surveyor spacecraft to the lunar surface, hurled twin Mariner spacecraft on flybys of the planet Mars and orbited such scientific payloads as the Orbiting Astronomical Observatory and the Applications Technology Satellite.

The employment situation at Complex 36 has received wide publicity in the local press recently, the points at issue involving the NASA/KSC launch responsibility for Atlas Centaur, the NASA/KSC status as the sole operator and accountable agent for Complex 36 at Cape Kennedy and the relationship of a labor union - Transport Workers Union of America - with Pan American World Airways, base contractor for the Air Force Eastern Test Range which has jurisdiction over Cape Kennedy.

Late in Calendar Year (CY) 1968 it became evident that beginning in mid-1969 the launch rate for the Atlas Centaur would be reduced. Current NASA schedules show only five firm launches between now and the end of CY 1972. Because of limited planetary opportunities, two of those five NASA launches (Mariner Mars H and I) must be launched within a two month period in 1971. There is a possibility, now in the discussion stage, of two additional launches for private industry scheduled for 1971-72.

The last Centaur was launched on August 12; the next launch is now scheduled June, 1970. Since the flight hardware comes to the Cape to be prepared only about three months before launch, NASA, as the responsible test agency, must determine the best way to retain an active and well-trained launch crew even though the launches are infrequent.

KSC, in cooperation with the Lewis Research Center (which handles the entire Centaur contract with General Dynamics/Convair), therefore examined the size and composition of the GD/C launch team in detail to determine what minimum resident skills it was necessary to maintain at the Cape. Pan American World Airways, through its base support contract with the AFETR, has provided NASA with certain maintenance and other type support services on Complex 36 on a fully reimburseable basis. The space agency, therefore, has the full responsibility for obtaining funds to support the Centaur launchings.

During the last several years, a level of about 263 GD/C personnel were charged to the project. In anticipation of a lower launch rate, some reduction was made but the requirements for launching dual missions to Mars in 1971 made it impracticable to staff GD/C with less than 232 people.

It was recognized that this resident crew would be utilized to the fullest only during the three month period that the flight hardware for each Atlas Centaur launch vehicle is ordinarily at Cape Kennedy. Since this resident crew possessed skills which could be readily used to maintain and operate gas distribution and propellant facilities, and perform certain low voltage electrical work and mechanical work within the complex, NASA decided to have GD/C perform these functions. No additional staff would be required by GD/C to do this and there would be no need for the government (and NASA) to pay additional monies to have this work performed by the AFETR contractor, PAA.

Beginning last January, a series of internal meetings were held at KSC in an effort to make more efficient use of the GD/C personnel and reduce outside launch support personnel to meet NASA/KSC budgetary constraints and diminished launch rates.

On March 4, 1969, NASA transmitted a revised request to AFETR calling for transfer of some operations and maintenance functions to GD/C. At the peak of Atlas Centaur operations, the AFETR had provided a level of support equivalent to 84 man years. By combining certain tasks with the GD/C work force, NASA estimated it would need as few as 21 man years of support by PAA.

As a result, the AFETR suggested a reconsideration of the March 4 NASA proposal in early May. A series of discussions and negotiations began between KSC and the AFETR on May 19 to determine the support level. The AFETR estimated that it could reduce the support level to 55 man years without transfer of some support functions to GD/C personnel. At the end of the negotiations NASA determined that the AFETR support level would be 34 man years or 21 fewer, which will result in annual savings of about $250,000.

It is the loss of these 21 positions to which the TWU has objected.

The new NASA request was signed by the AFETR on August 19 and was aired in the press beginning August 20.

On September 19, discussions were held with AFETR, PAA and the TWU local president and international vice president. Oliver Kearns, KSC labor relations, attended to present the NASA rationale and the diminished launch rate and budgetary constraints which support it.

No task was assigned to GD/C which required the acquisition of additional skills by their personnel. Significantly, some tasks were retained by PAA even though a skill existed with GD/C because of a particular competence or special operational consideration. Examples of this include high voltage electrical distribution, corrosion control and elevator maintenance. Examples of tasks assumed by GD/C and formerly assigned to PAA are propellant and gas system operation, low voltage electrical systems, operational water systems and operation of the umbilical tower and service structure.

Other services which will continue to be provided by PAA include such functions as propellant delivery and security and janitorial services.

The basic issue raised by the union leaders is whether this curtailment of PAA functions on Complex 36 is only a preamble to other terminations and consolidations which might affect the functions of PAA and other support contractors, both Air Force and NASA, in their future operations here.

In the common effort of both the Department of Defense and NASA to trim every item of cost they can in future space operations, no one today can give the union leaders complete assurance on that point, although it is not NASA's intention to make its major economies by cutting back on work assigned to PAA.

KSC is currently in the middle of a major retrenchment following the Apollo 11 manned lunar landing success which will reduce its own level of employment of stage and support contractor from a total of 23,600 last June to 18,000 by June, 1970.

Appended are copies of an exchange of two self explanatory telegrams which NASA/KSC sent TWU on this matter.

KSC understands that the meeting in Atlantic City was inconclusive. Accordingly, KSC has been notified to proceed October 1 to implement the new work pattern on Launch Complex 36.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

OCT 2 1969

2A.3 #173

RELEASE NO: KSC-431-69
FOR RELEASE: Immediate

October 1, 1969

REMARKS OF NASA ADMINISTRATOR DR. THOMAS O. PAINE NASA APOLLO AWARDS CEREMONY AT KENNEDY SPACE CENTER SEPTEMBER 30, 1969

KENNEDY SPACE CENTER, Fla. - - This is a significant and historic occasion. It is a great pleasure for me to be with you and take part in paying America's tribute to some of those most responsible for NASA's great achievements in space, which have earned for this nation the plaudits of the world.

Here at the John F. Kennedy Space Center, the final product of our operations across the nation are concentrated for the most dramatic part of our mission, the launch into space. You have achieved here flawless operations that already have taken man to the Moon and will one day take instruments and men to the most distant planets.

Now that we have achieved our objective of landing on the Moon, the objective that was set by President John Kennedy nearly a decade ago, I'm sure that all of you have shared with me a common concern over where we are going from here. What does America do for an encore? The answer to that is that we're going to do a very great deal.

Apollo 11 was a beginning, not an end. We will press forward in space. When President Nixon assumed office, he appointed a special Space Task Group to help him answer the question, "After the Moon, what?" The group was chaired by the Vice President. Members included the Secretaries of Defense and State, the President's Science Advisor and myself. The other observers were the Chairman of the Atomic Energy Commission and the Director of the Bureau of the Budget. So it was a representative group from the new administration. This task group has now made its recommendations to President Nixon, and it has recommended a forward looking space program. And it has concluded that the Space Agency has the capability to launch a manned expedition to Mars within the next fifteen years.

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There will certainly be ups and downs in levels of activity as the program content of NASA changes. But the long range future of the agency is certainly bright. Man is definitely in space to stay. This nation is not going to turn its back on this challenge and this opportunity. The report of the President's Space Task Group presents three options of balanced programs, each culminating in a manned Mars mission, but with dates varying from 1983 on out to the turn of the century. I would be very glad to send a copy of the Space Task Group report to anyone here in the audience who writes and asks for it. I think it merits the thoughtful consideration of all of us.

One reason I am so confident of the long range future of the space program is epitomized in these ceremonies here today. The way in which our men and women all over the country have combined in this program to utilize modern science and technology to achieve bold national goals has been unprecedented. Each NASA employee has helped to blaze a trail both in space and here on the ground that will be followed by many others to come.

NASA has benefitted from the tremendous contribution of universities and from our industry. We certainly proved the soundness of the decision that was made early in the space program to enlist universities and industry with us in this endeavor. The continuous and close teamwork involved has also been epitomized with teamwork within the government. And, particularly, here at Kennedy we should mention the role played by the Department of Defense as epitomized by the contributions to NASA here at Kennedy, of the Air Force Eastern Test Range. I am sure that the same superb efforts that landed men on the Moon, which demonstrated to the nation and the world we could accept bold committments and meet them on time and within money, is going to go down this year and in years to come before the Congress and before the people as a real plus mark as we move ahead and justify our future programs.

I think too, beyond that, that history will record that the greatest contribution, perhaps, that our generation has made to world history was the opening of the Space Age. Opening, indeed, endless frontiers for future generations. The awards that we give here today symbolize our nation's appreciation of the role that you here have played in this great advancement of men's horizons. It's a great honor for me to participate with you in these historic ceremonies.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 9 1969 2A.3 #73

news release

RELEASE NO: KSC-433-69
FOR RELEASE: October 8, 1969

MATHEWS FACES COMPLEX TASKS AS NEW APOLLO PROGRAM MANAGER

KENNEDY SPACE CENTER, Fla.,-- Edward R. Mathews, the new Apollo Program Manager at the Kennedy Space Center, is stepping into a complex leadership role that could be called planning for the opposites.

Mathews' office is deeply involved in phase-down activities at KSC resulting from the budget squeeze, while at the same time preparing for the Spaceport's role in extended lunar missions and future programs.

"We are involved in various contractural exercises to reduce costs as much as possible," he said, "to make money available for follow-on programs."

The major phase-down activities include placing Firing Room 3 and High Bay 2 in a permanent down mode and Mobile Launcher 1 in an interim down mode.

The launcher, which will be temporarily placed in High Bay 2, will later be modified to accommodate the Saturn V with an Apollo Applications Program Workshop.

Mathews' organization also is involved in tracking modifications and other procedures required in placing Pad B in a stand-by status from which it can be called up in 60 days and used for a launch in another 60 days.

In the "futures" category, Mathews has personnel attending preliminary design reviews at Grumman's plant in New York and a North American Rockwell facility in California to help determine what will be needed at KSC to carry out "ALEM" and "LMMP."

ALEM is an acronym for "Advanced Lunar Excursion Missions" used in reference to the command-service module's part in extended stays in lunar orbit and LMMP stands for "Lunar Module Modification Program" and refers to the lunar module's extended stays on the lunar surface.

"We're planning for modifications to facilities and ground support equipment to accommodate the ALEM and LMMP designed spacecraft," he said.

Also in the planning stage is an effort to get a large camera aboard the spacecraft in order to take detailed pictures of future landing sites.

Arlin Smith, Chief of Mathews' Launch Vehicle Office, has been serving on the Source Evaluation Board for the Lunar Rover Vehicle. In 1971 the first rover will be placed in the descent stage of a lunar module at KSC for the trip to the Moon.

The four-wheeled rover, about eight by ten feet in size, will weigh less than 400 pounds and provide transportation at a top speed of 10 miles per hour for gear and lunar samples.

Sam Beddingfield, Chief of Apollo Program's Systems Engineering Office, has been working closely with the Design Engineering Directorate in preliminary KSC planning to handle the space shuttle, an airplane-rocket combination that will be designed to deliver men and equipment into space and return to earth for refurbishment and reuse.

Before assuming his present position, Mathews served as Deputy Apollo Program Manager under Rear Admiral Roderick O. Middleton, who has returned to active duty with the Navy.

His previous work with rockets and missiles provides Mathews with the experience needed for the complex job.

He came to the Cape in June, 1958 with the Missile Firing Laboratory, Army Ballistic Missile Agency. He recieved the Army Achievement Award for his work as Project Engineer on the Pershing missile.

He was appointed in 1960 to the Project Coordination Staff of the Launch Operations Directorate, NASA.

In 1961 he served as Centaur Project Coordinator, providing program direction of Centaur activities. Responsibility for Agena vehicles was added when he was named Chief of the Light and Medium Vehicle Systems Office in 1962.

From 1963 to 1966, Mathews served as Chief of the Saturn 1B Systems Office, when he became Chief of the Saturn Systems Office, KSC. In this position he provided program direction for the construction, activation and operation of Saturn launch complexes and for Saturn launch vehicles.

He became Deputy Apollo Program Manager in 1967.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 9 1969 2A.3 #73

news release

RELEASE NO: KSC-434-69
FOR RELEASE: October 8, 1969

CIVIL SERVICE APPROVES CHANGES IN SUMMER EMPLOYMENT HIRING

KENNEDY SPACE CENTER, Fla.,--The Kennedy Space Center Personnel Office reports that the Civil Service Commission has approved a change in the 1970 Summer Employment Examination program designed to permit agencies to hire outstanding students in grades GS1/4 without a written test requirement.

With the change, all applicants who will have completed at least two years of college at time of appointment and have a grade-point average of 3.5 or above, or -- for engineering and physical science majors -- a grade-point average of 3.0 or above will not be required to take the summer employment written test.

Applicants qualifying on this basis will receive ratings as follows: 4.0=100; 3.9=99, 3.8=98, etc.

The summer employment program schedule is as follows: October 14, issue examination announcement; December 5, cutoff date for filing for January 10 test; January 9, cutoff date for filing February 14 test; January 10, first test date; February 4, cutoff date for filing for March 14 test and cutoff date for updating 1969 eligibility; February 14, second test date; and March 14, third test date and cutoff date for receipt of applications from outstanding students.

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KSC
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 9 1969

news release

2A.3
#73

RELEASE NO: KSC-435-69
FOR RELEASE: October 8, 1969

CLAYBIRD TOURNAMENT SLATED BY SPACEPORT GUN CLUB

KENNEDY SPACE CENTER, Fla., The Spaceport Gun Club's Claybird Tournament is scheduled October 12 at the Complex 99 Range.

Complex 99 is the Kennedy Space Center's recreational area situated three miles east of State Road 3 some two miles north of the Barge Canal.

Registration will begin at 10:00 a.m. and close at 2:00 p.m. with a charge of $3.

There will be 50 birds of regular skeet and 50 birds of regular trap with the following classes: A-90 and above, B-79 to 89, C-65 to 78 and D-64 and below.

For claybird classification, skeet and trap averages will be combined and divided by two. Those without established averages will multiply the first round skeet and trap scores by two for classification.

Awards will go to the champion, runner-up, and first, second and third place winners in each class.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-436-69
FOR RELEASE: October 8, 1969

KSC SECURITY CHIEF REELECTED TO INDUSTRIAL SECURITY POST

KENNEDY SPACE CENTER, Fla.,--Charles L. Buckley, Jr., Chief of the Kennedy Space Center's Security Office, Installation Support Directorate, has been reelected for a second three-year term to the National Board of Directors of the American Society for Industrial Security.

Vice President Spiro T. Agnew was the principal speaker at the installation ceremonies held recently in Washington.

Buckley is one of two Federal employees to be elected to the 17-man board of directors.

The society has 60 chapters throughout the United States and 3,300 members. It is made up principally of industrial corporations and government agencies and recognized as the national authority on industrial security.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 9 1969 2A.3 #73

news release

RELEASE NO: KSC-437-69
FOR RELEASE: October 8, 1969

KSC QUALITY SURVEILLANCE EXPERT HELPS UPGRADE BREVARD EDUCATION

KENNEDY SPACE CENTER, Fla.,--Dr. John B. Gayle, instrumental in implementing improved quality surveillance methods since coming to the Kennedy Space Center in 1966, has been at the same time actively supporting academic programs in Brevard County.

Dr. Gayle, Chief of Quality Surveillance Office, Support Operations, has been teaching two mathematical statistics courses per year in Florida State University's Masters in Management program.

In addition, he has served as an advisor to some 10 of these students on their terminal papers.

He is now serving as a member of an advisory committee to Brevard Junior College's (BJC) Quality Control and Reliability (QCR) curriculum. The committee has recommended an upgraded QCR program designed to provide a sound base for students in mathematical statistics and to enable more credit hours earned at BJC to be accepted by four-year institutions.

Dr. Gayle, who received his Ph.D. from the University of Alabama in 1954, is a career Civil Service employee, serving with the U.S. Bureau of Mines from 1946 to 1961 and the Marshall Space Flight Center from 1961 to 1966.

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KSC
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-441-69
FOR RELEASE: October 17, 1969

SAUDI ARABIAN PRINCE VISITS SPACEPORT

KENNEDY SPACE CENTER, Fla.,--Prince Fahd bin Abd al-Aziz of Saudi Arabia toured the Spaceport and Cape Kennedy today.

He was greeted at Patrick AFB by Maj. Gen. David M. Jones, Commander of the Air Force Eastern Test Range, and Walter J. Kapryan, Director of Launch Operations at the NASA Kennedy Space Center.

The Prince and his party visited the Air Force Museum at Complex 26 on the Cape and drove past the Delta, Centaur, and other launch pads en route to the Spaceport across the Banana River.

He was briefed on America's lunar landing missions by Mr. Kapryan and visited the Vehicle Assembly Building where the giant Saturn V rockets and Apollo spacecraft are prepared for flights to the moon.

The Prince also viewed the massive transporters that carry the 363-foot tall Apollo/Saturn V vehicles to the launch pads and got a closeup view of the launch pad where Apollo 12 is being readied for its November 14 liftoff on America's effort to land its second astronaut team on the moon.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-442-69
FOR RELEASE: October 17, 1969

WASHINGTON, D.C.,--Lt. Gen. Frank A. Bogart (USAF Ret.) has been appointed Associate Director of the National Aeronautics and Space Administration Manned Spacecraft Center, Houston, succeeding Wesley L. Hjornevik who has been nominated by President Nixon to be Deputy Director of the Office of Economic Opportunity.

Succeeding Bogart as Deputy Associate Administrator for Manned Space Flight (Management) at NASA Headquarters is Harry H. Gorman, Deputy Director (Management) of the NASA Marshall Space Flight Center, Huntsville, Ala.

General Bogart joined NASA in December 1964 as a special assistant to the Associate Administrator for Manned Space Flight. He was named Deputy Associate Administrator (Management) in September 1965.

General Bogart is a 1931 graduate of the United States Military Academy. His military service includes assignments in the United States Army and United States Air Force. He was Comptroller of the Air Force when he retired in 1964.

Gorman joined the Marshall Space Flight Center staff in June 1960 following an assignment with the Atomic Energy Commission as manager of its Lockland Operations Office in Ohio.

Gorman is a graduate of St. Louis University. He served in several administrative positions in the Army and was director of the budget in the Atomic Energy Commission's San Francisco Operations Office. He also served as Deputy Assistant Director of the Division of Reactor Development for AEC in Washington.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 23 1969 2A.3 #73

news release

RELEASE NO: KSC-443-69
FOR RELEASE: October 23, 1969
3:00 p.m.

BENDIX RECIEVES CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla.-- The National Aeronautics and Space Administration has extended a contract with the Bendix Corporation Launch Support Division, Kennedy Space Center, Fla., for launch support services at the Center.

The extension is for $41,592,263 and brings the total of the cost-plus-fixed-fee contract to $166,861,503. The contract runs through March 31, 1971 and calls for operation and maintenance, engineering, reliability and quality assurance, test support management, and systems safety support services of launch facilities at the Spaceport.

The Kennedy Space Center conducts NASA's manned and unmanned launches in the United States program of peaceful space exploration.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

OCT 24 1969 2A.3 #73

RELEASE NO: KSC-444-69
FOR RELEASE: October 22, 1969

KSC LAUNCH DIRECTOR DETAILS APOLLO 12 PLANS

KENNEDY SPACE CENTER, Fla.,--The following interview with Walter J. Kapryan, Director of Launch Operations at KSC and Launch Director for the Apollo 12 mission at the Kennedy Space Center, details plans and readiness for the liftoff at 11:22 a.m. November 14.

Q. Going into the Apollo 12 Countdown Demonstration Test (CDDT), how does KSC stand in regard to readiness of the Saturn V launch vehicle?

A. The launch vehicle is ready for the CDDT at this time. There are a few open problems, but they are of the type we have seen before and the solutions are known. It is as ready as any launch vehicle has been in relation to the CDDT.

Q. How about spacecraft readiness?

A. The spacecraft is also ready. There are no problems outstanding for the command, service or the lunar modules at this time.

Q. What has been done about the TV camera that will fly aboard the lunar module?

A. The matter concerning the TV camera has not been completely resolved. Prior to the CDDT, the black and white TV camera was installed. Last Sunday, a test of the color camera involving KSC, the Manned Spacecraft Center and the Goddard Space Flight Center encountered some technical problems. A continuing investigation is underway at this time. If we can demonstrate with an end-to-end test utilizing LM-7 in the MSO Building, we will then plan to repeat that test with LM-6 on Apollo 12 following the CDDT. If the tests are successful, we will then fly with the color camera. However, should we get negative results, we will fly with the black and white camera that was previously installed.

Q. Where does KSC stand in regard to launch-related ground support equipment and facilities.

A. I can only state that we are in better shape with respect to Apollo 12 than we have been for any launch.

Q. Would you outline the major milestones from now until launch?

A. We look for the successful completion of the wet portion of the CDDT (with propellants aborad) on October 28 and the dry portion (with the astronauts aboard) on October 29. Following an analyses of the information obtained during the CDDT, we will be ready to pick up the 98-hour count at 7:00 p.m. November 8 that will have the following built-in holds: 12-hour hold at T-66 hours, 16-hour hold at T-48 hours, 9-hour, 22-minute hold at T-9 hours and 1-hour hold at T-3 hours, 30 minutes. The previously mentioned color TV work may be done between the CDDT and the pickup of the count.

Q. Would you briefly explain the launch window for November and turn-around times?

A. There are two launch windows in November. The first opens at 11:22 a.m. November 14, which we will target for, and closes at 2:28 p.m., a duration of 3 hours and 6 minutes. The other launch opportunity is on November 16. It opens at 2:09 p.m. and closes at 5:27 p.m. and is 3 hours, 18 minutes long. Should we scrub at the end of the window on November 14, we will have 48 hours to turn around to meet the November 16 launch time. We have the turn-around procedures well in hand and should have no problem meeting the next opportunity barring any major hardware problems.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-445-69
FOR RELEASE: October 22, 1969

SPACEPORT BEGINS ORGANIZATIONAL WORK ON PROJECT FOR MARS

KENNEDY SPACE CENTER, Fla.--Work has started at the Kennedy Space Center on the organizational and functional aspects of the Viking Project, NASA's most advanced unmanned scientific spacecraft for exploring Mars.

In mid-1973, two Viking orbiter lander spacecraft will be launched from Cape Kennedy using NASA's new Titan/Centaur launch vehicles. Upon arrival at Mars, the Vikings will be placed into orbit around the planet and, after a search is made for the best landing site, will release their landers for soft landing and operation on the Mars surface.

Due to the complex nature of the Vikings and the new Titan/Centaur rocket combination, many activities involving KSC and other NASA centers across the nation need to be fully coordinated throughout the project.

Harold Zweigbaum of the Unmanned Launch Operations Directorate has been named as the Viking Project Representative for all matters pertaining to KSC's Viking responsibilities.

NASA's Mars exploration program is following the pattern used in the unmanned automated spacecraft exploration of the Moon.

"Quick look" flyby missions of Mariner 4 in 1965 at a distance of 6,100 miles, and Mariners 6 and 7 earlier this year, at an altitude of just over 2,000 miles, have provided many pictures of the Mars surface and scientific information about the atmosphere.

In May of 1971, two 2,000 pound Mariners will be launched from the Cape on Atlas/Centaur vehicles. After about a six month trip, they will be placed into orbits around Mars.

Using their television cameras and scientific measuring instruments, these Mariners will provide, for the first time, an opportunity to study the dynamic characteristics of the planet by viewing its seasonal changes and atmospheric phenomena for a period of 90 days.

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These missions will lead to the first direct measurements in the Mars atmosphere and on the Mars surface in 1973 through the Viking Project. The objective of the Viking missions is to obtain information about the existence and nature of life on Mars, the atmospheric and surface characteristics on the planet, and the nature of the planetary environment.

The Viking mission concept is to launch two 8,000 pound Viking orbiter lander combinations using the Titan/Centaur launch vehicle. KSC will use the existing Titan Integrate-Transfer-Launch (ITL) facility at Cape Kennedy and needs to make only a minimum of modifications to accommodate the Centaur stage and support system.

Because the launches are planned only 10 days apart, KSC will prepare both Titan/Centaurs simultaneously in advance of the first launch opportunity.

The Titan/Centaur designated for the second mission will be assembled in the Vertical Integration (VIB), taken to Complex 41 and checked out to a point where it is about six days from launch readiness, and then returned to the VIB.

Then, the Titan/Centaur for the first mission, which had also been assembled in the VIB, will be taken to the pad, given a final checkout, fueled and launched on the opening of the launch opportunity.

The Vikings will arrive at the planet Mars approximately seven months after launch. They will still be separated by about 10 days to facilitate tracking and flight control from Earth stations.

Upon arrival at the planet, the orbiter propulsion system will be used to place the spacecraft into orbit around Mars and the orbiter will survey potential landing areas. Based on these data, and those obtained in the 1969 and 1971 missions, a suitable landing site will be selected.

The orbiter will then aim the lander capsule at the selected spot and release it for descent to the surface of Mars. The Viking lander capsule consists of the lander, a bioshield which is jettisoned prior to lander separation, an ablative aeroshell (reentry heat shield), propulsion system, and parachute.

After separation, the rocket engine will be fired to provide the deorbit braking power and, subsequently, the parachute will be deployed to further slow the lander's speed. Shortly before landing, the parachute is jettisoned and the rocket engine is fired again for the soft touchdown on Mars.

During the entry and descent through the atmosphere, direct measurements of the atmospheric composition, density, temperature, and pressure will be made by the lander and relayed to the orbiter.

After the lander has reached the surface of the planet, the orbiter will continue for about three days to provide relay support and will then be free to provide gross area surveillance of the landing site and study the dynamic characteristics of the planet and its atmosphere from orbit.

On the surface of Mars, the lander will carry out its own investigations for a period of 90 days. Visual imaging equipment, using two cameras, will send back pictures of the landing site.

Biological experiments will search for evidence of living organisms, analyze the organic compounds of soil samples and the atmosphere, and determine the amount and nature of water in the surface material.

A seismometer will study the internal activity of the planet, while a meteorological experiment will determine the pressure, temperature, wind velocity and water vapor content of the atmosphere.

NASA's Langley Research Center at Hampton, Virginia, has overall management responsibility for the Viking Project. The Jet Propulsion Laboratory will furnish the orbiter system and the tracking and data system. Martin-Marietta Corporation has been selected as prime contractor for the lander system and, under Langley's direction, will integrate the complete Viking spacecraft system.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-446-69
FOR RELEASE: October 23, 1969

KSC SPACE SHUTTLE OPERATIONS STUDIED

KENNEDY SPACE CENTER, Fla.--The path into space was pioneered with disposable spacecraft and launch vehicles, their days now numbered by the economic facts of life.

Exploring the reuseable hardware and support facilities needed for an operational, economical space transportation system running from 60 to 100 flights per year from KSC by the mid 1970s is the job of Samuel T. Beddingfield, Chief, Apollo Systems Engineering Office.

As outlined by Dr. Kurt H. Debus, KSC Director, in a recent speech in Berlin, Germany: "NASA has called for design concepts of a logistics or shuttle vehicle that will provide low cost transportation between Earth and an orbiting space station or space base.

"We visualize it as a two-stage vehicle launched from the vertical position, the first stage flying back to land at the Kennedy Space Center, while the second stage propels the vehicle toward rendezvous and docking with the space base. It would offload personnel and cargo, take aboard data and persons who have completed tours in space and fly back to land on a jet airfield."

Said Beddingfield: "Our main object is to cut substantially the cost of a pound of payload into Earth orbit. He estimated the present cost at $1,000 per pound and outlined the goal of the space shuttle system as reducing that cost to a thriftier $10 to $100.

"We must make everything fully reuseable," said Beddingfield. This would include both the booster and orbital elements. Onboard checkout equipment would enhance its quick turnaround capability, the goal being launch readiness for another flight two working weeks after touchdown.

"At KSC," said Beddingfield, "we're trying to provide the data needed by the designers to build operational considerations into the system from the beginning. We're reacting to the parameters as established by the Office of Manned Space Flight."

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The flight hardware, aimed for operational use beginning in the mid-1970s, is to be designed to have a minimum useful life of 100 flights.

Design requirements include the ability to land on a 10,000 foot long runway and Beddingfield said a number of landing sites - all in the KSC area - are being studied. Basic propulsion would come from engines fed with liquid oxygen and liquid hydrogen but jet engines would be provided to give ferry propulsion in the event that the shuttle elements - to be roughly the same size as the giant C-5A aircraft - made their initial landing at other than their primary base in the KSC area.

The flight components are to be designed with automatic landing capability and have the equipment needed to land in zero-zero weather.

Beddingfield said many different configurations are now under study but these will be reduced to three in the near future.

The shuttle would have a two-man crew, 10 passenger capability and - with KSC as the main operational base - the flight crews would train and live in this area. The passengers - perhaps scientists - would not have to be rugged pilot types for the maxim gravity loading at liftoff is not to exceed 3 Gs.

The orbital element is to have a cargo capability up and back of 50,000 pounds in a payload bay measuring roughly 15 by 60 feet. The spacious payload bay would establish a myriad of cost-cutting possibilities.

The bay could be used to carry weather or communications satellites into orbit where they would be snagged into the proper station by small positioning rockets.

Ailing satellites could be brought on board for minor repairs and restationed or returned to Earth for major overhaul work.

Beddingfield said he and the 18 working with him represent all facets of KSC directorates. "We're still assigned to our parent directorates."

The shuttle studies involve what use can be made of existing facilities and the new facilities which might be needed. Beddingfield speculated that an ongoing Saturn V program might absorb the facilities of the Vehicle Assembly Building and that the newer facilities required for the shuttle program might include a hangar such as used in the aircraft industry for maintenance work.

Beddingfield analogized the shuttle operation to that of an airline and has already visited maintenance facilities operated by both large and small airlines to study the adaptation of airline techniques to aerospace. He has also visited the Lockheed C-5A plant at Marietta, Georgia, and his most recent trip was to Seattle, Washington, where he flew on the giant 747 Boeing transport and studied its logistics requirements.

Beddingfield estimated that six shuttles would be sufficient to support from 60 to 100 flights from KSC per year. The orbital element would have an in-orbit stay period of seven days which could be increased to 30 days by reducing the weight of the payload and increasing that of consumables.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 24 1969

news release

2A.3 #74

RELEASE NO: KSC-447-69
FOR RELEASE: October 23, 1969

G. MERRITT PRESTON TO RECEIVE AWARD

KENNEDY SPACE CENTER, Fla.,--G. Merritt Preston, Director of Design Engineering at KSC, is to be presented the Spirit of St. Louis Award at an American Society of Mechanical Engineers President's Luncheon to be held in Los Angeles, California, on November 17.

The Award was established in 1929 to commemorate Charles A. Lindbergh's daring and pioneering flight of the Atlantic Ocean from New York to Paris, its founders Phillip D. Ball and a group of St. Louis citizens who financed the dramatic journey.

Established in cooperation with the ASME, the Spirit of St. Louis Award has been presented every one to three years to outstanding individuals who have rendered meritorious service in the advancement of aeronautics.

Recent recipients include Dr. Robert R. Gilruth, Director of the NASA Manned Spacecraft Center, and Christopher C. Kraft, Director of Flight Operations at MSC.

Preston is responsible for design of ground support equipment, structures and facilities for NASA launch operations and support elements. He was Deputy Director of Launch Operations from January 1965 to February 1967, when he assumed his present post.

Preston's career has been marked with many honors.

After graduation from Rensselaer Polytechnic Institute in 1939, he joined the National Advisory Committee for Aeronautics (NACA) at Langley Research Center, Virginia, where he worked on aircraft speed and safety projects.

He continued this work at the Lewis Flight Propulsion Center in Cleveland, Ohio where he became Chief of Flight Research Engineering in 1945. While at Lewis, Preston and his associates received the Flight Safety Foundation Award in 1954 in 1954 and the Laura Tabor Barbour Award in 1956 for their work on aircraft crash survival problems.

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Their work was also recognized by NASA after it assumed the responsibilities of NACA.

From December 1963 to December 1965, he was Manager of Florida Operations for the Manned Spacecraft and from 1961 to 1963 he was both Manager of Cape Operations and Chief of Preflight Operations for the Manned Spacecraft Center Operations at Cape Kennedy. Prior to this position, from 1959 to 1961, he was Assistant Chief of Mercury Operations.

In 1963, the late President John F. Kennedy awarded Preston the Outstanding Leadership Medal for his role in Project Mercury. NASA presented Preston and his organization with Group Achievement Awards for contributions to Project Mercury, contributions to the Gemini missions and preflight testing of the Apollo spacecraft.

Preston, his wife, Grace, and family, live in Indian Harbour Beach.

The ASME's President's Luncheon is being held in connection with a two-day technical meeting scheduled for November 18-19.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

OCT 27 1969
2A-3
#74

news release

RELEASE NO: KSC-448-69
FOR RELEASE: October 26, 1969

KASEY 'GATOR IS AWOL

KENNEDY SPACE CENTER, Fla.,--Kasey, the Spaceport's marshmallow gobbling gator-in-residence is missing!

Kasey was observed in his usual haunts in the pond in front of KSC Headquarters as recently as Saturday, October 18.

But he missed muster last Monday morning and has remained on the AWOL roster all week.

Was it the call of the wild, romance or a poacher's brazen theft that removed Kasey from the pond?

Has "he" moved on to some wilder pond or is he on his way to becoming a wallet, belt or pair of shoes?

"He either walked off or was taken out of there," commented Hal O'Conner, manager of the Merritt Island National Wildlife Refuge. "He had it pretty good in there," he added.

Kasey, one of two 'gators placed in the Headquarters pond by the MINWR in late July as part of the restoration of the pond's natural ecology, had a good thing going.

The pond was later stocked with bass, bream and even an albino catfish and Spaceport personnel eating in the Headquarters cafeteria would throw him bite sized morsels left over from their lunches. Especially savored by Kasey were marshmallows and garlic toast. So hooked was Kasey on the marshmallows that there was concern in some quarters that he might be the first 'gator in history to suffer from sweets-induced tooth decay.

O'Conner noted that Kasey's relatively small size - about three feet - would indicate that "he" was not yet of breeding age and almost certainly ruled out romance as the cause of the disappearance.

Kasey was also somewhat smaller than the size favored by poachers for their hides but O'Conner declined to rule out the possibility of a 'gator-napping.

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The first of the two alligators placed in the pond disappeared shortly after being put in his new home and was given the name in absentia of Gone Gator. A contest among KSC personnel gave Kasey "his" or "her" formal name, a play on the Kennedy Space Center's acronym. The 'gator's sex was never determined.

But AWOL or 'gatornapped, Kasey will have one or more successors if he fails to report for duty on Monday.

O'Conner said refuge personnel would probably place more alligators in the pond next week.

The MINWR official estimated the 'gator population at KSC to exceed 1,000 reptiles.

# # #

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-449-69
FOR RELEASE: November 1969

SURVEYOR III BLAZED TRAIL TO APOLLO 12 LANDING SITE

NOTE: Inspection of the Surveyor III soacecraft and returning portions of it to Earth for study are among the secondary objectives of the Apollo 12 lunar landing mission scheduled for launch from KSC on November 14 at 11:22 a.m. EST. The following is a backgrounder on the Surveyor III mission.

KENNEDY SPACE CENTER, Fla.,--An Atlas Centaur roared to life at 2:05 a.m. on April 17, 1967, shattering the early morning stillness and tracing a brilliant trail in the black sky as it roared off the pad at Cape Kennedy's Complex 36.

Nestled inside the payload shroud was a 2,200 pound robot designated Surveyor III, its destination the eastern "shore" of the Ocean of Stroms, a large lunar mare area on which Surveyor I had made a soft landing 390 miles to the west during the the preceding June.

The Surveyor III mission marked the maturation of the high-energy Centaur upper stage. This was its first two-burn operational launch by the KSC Unmanned Launch Operations Directorate; Surveyors I and II had been launched on single burn, direct ascent trajectories to the Moon.

After Atlas burnout, Centaur fired once to place the spacecraft in an Earth parking orbit. Then, precisely on schedule, it fired up again to kick the spidery spacecraft out of its parking orbit and hurl it on its way to a hop, skip and jump landing in a gently sloped lunar crater on April 19.

Surveyor I had made a story book landing on NASA's first attempt to place a robot spacecraft on the Moon and Surveyor II - launched from the Cape on September 20, 1966 - had crashed onto the lunar surface after a vernier engine misfire during a midcourse correction maneuver caused it to enter an uncontrollable spin.

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The Surveyor III landing was not without its tight moments. The spacecraft's three vernier engines failed to shut down at the programmed 14 foot altitude above the Moon and Surveyor III made three separate touchdowns, bouncing 66 feet and then 36 feet before engine shutdown and a final landing.

Surveyor III landed at 2.94 degrees south latitude, 23,34 degrees west longitude in the southeast portion of the Ocean of Storms 230 miles south of the huge crater Copernicus.

The nearest major lunar landmark is the crater Lansberg to the northwest.

The spacecraft came to rest in a subdued, rounded crater about 656 feet (200 meters) in diameter. Inclined 14 degrees to the horizontal about 150 feet down from the eastern rim, its location has been determined to within a yard by comparing features visible from its TV camera with those found in high resolution pictures of the Moon's surface taken by the Lunar Orbiters.

Its horizon bounded by the crater rim, Surveyor III's TV camera could not view the surface outside the crater but the sloping walls of the shallow depression enabled it to observe nearby features more clearly than would have been possible on a flat surface.

The spacecraft's TV camera, commanded by controllers from the Jet Propulsion Laboratory, went busily to work and took 6,315 pictures from April 20 until the intensely cold and dark lunar night descended on May 3. Surveyor I had first carried remote human eyes to the surface of the Moon but the tilted position of Surveyor III made possible several "firsts" photographs of a solar eclipse and color pictures of the Earth from the lunar surface.

The 50-foot deep crater is typical of the subdued topographic features covering more than 50 percent of the surface of this part of the Ocean of Storms.

Pinpointing the Surveyor III landing site required tedious detective work. Mosaic photographs taken by Surveyor were used to create a rough plan of the crater and its details. The general pattern was then searched for in a high resolution photograph taken of the area by Lunar Orbiter III, launched from the Cape on February 5, 1967.

A crater was found that seemed to have the correct disposition of small craters and rocks with measurements of the azimuths of these features confirming the identification.

About 100 small craters resolved in the Lunar Orbiter III pictures are scattered over the floor, inner slopes and rim of the larger crater in which the spacecraft is located, the craters ranging in diameter from one to more than 25 yards. In addition, the inner surface of the main crater is sparsely strewn with coarse blocks.

A close comparison of the Surveyor III TV pictures with the Lunar Orbiter III photograph of the landing site made it possible to identify more than 100 craters and large blocks recognizable in both the Surveyor and Lunar Orbiter photographs.

The footpad marks left on the surface in the second touchdown are visible in the Surveyor III photographs and investigators believe that lunar material disturbed by the vernier engines during the abnormal landing sequence may have coated or abraded part of the TV camera's mirror, causing glare appearing in portions of many TV pictures.

Surveyor III was the first in the series to carry a soil sampling device to the lunar surface. The surface sampler - a mechanical claw able to dig and grasp - dug four trenches, made eight bearing tests and 14 impact tests in an attempt to determine the properties of the lunar soil during its 18 hours of operation.

Five of the seven spacecraft in the soft -landing Surveyor series were successful, contributing close-up data on the lunar surface which helped to pave the way for the July landing of Apollo 11 and the manned spacecraft which will follow in an extensive lunar exploration program.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NOV 6 1969 2A.3 #74

news release

RELEASE NO: KSC-456-69
FOR RELEASE: Immediate

November 5, 1969

COMMERCE AND SCIENCE FELLOWS TOUR SPACEPORT

KENNEDY SPACE CENTER, Fla. -- A group of 15 scientists and engineers from throughout the Federal Government toured the spaceport and Cape Kennedy today. After a briefing on unmanned launch operations from Don C. Sheppard, Chief of Spacecraft and Vehicle Support Operations, they viewed Apollo 12 on its launch pad and Apollo 13 in the Vehicle Assembly Building. They also toured the unmanned launch complexes at the Cape. They were given a general briefing last night by Gordon L. Harris, Chief of Public Affairs, at a dinner at Ramon's on the Causeway in Cocoa Beach.

The group is sponsored by the Commerce Department under its Commerce, Science and Technological Fellowship Program which annually brings Government officials together to study national and international issues involving science and technology. Under this program they are exposed to new job experiences for the enhancement of their own technological and management capabilities.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-458-69
FOR RELEASE: November 1969

CITRUS A SPACEPORT PRODUCT

KENNEDY SPACE CENTER, Fla.,--Space exploration is the major activity at the Kennedy Space Center. A less publicized product is the thousands of boxes of citrus from the groves which cover much of the Spaceport with neat, marching ranks of trees.

The nation's Spaceport is located on Merritt Island and its 3,142 acres of well-tended groves produce the Indian River fruit known for quality through-out the world.

Acquisisition of the Spaceport's 88,000 acres began in the early 1960s and the vast reservation needed for Project Apollo and future programs included prime citrus acreage.

The citrus groves are worked by 63 leaseholders and the government will receive about $140,000 from them this year under crop sharing arrangements, according to Joe Hester of the KSC Real Property Branch.

"There's every kind of citrus in there," said Hester, "much of it fancy fruit like navel oranges or tangeloes."

The recent cold snap will help to ripen the early varieties and another cold wave or two will bring the picking season close at hand.

Groves located on Spaceport property have played a major role in the Florida citrus industry.

The first grove on Merritt Island was established on the north end of the reservation in February, 1835, by Captain Douglas Dummett, a Barbados native who had originally settled in St. Augustine. A disastrous freeze had stricken Florida citrus plantings that year and Dummett moved south to Merritt Island where the waters of Mosquito Lagoon and the Indian River temper cold waves moving down from the north.

The Dummett grove prospered and by 1869 it was the largest in the state, its 1,350 producing trees yielding more than 700,000 oranges which were carried by dugout canoes to St. Augustine for shipment to northern markets.

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The years passed and the grove was neglected by subsequent owners of the property.

Then came the disastrous freeze of 1895. The Dummett grove - in a wild state - was the state's only survivor and its trees produced the budwood from which the Florida citrus industry was rejuvenated.

The space age came to Brevard County in 1950 but the citrus industry has grown despite the inroads of commercial building and residential subdivisions into existing acreage.

The county had approximately 16,000 acres planted in citrus ten years ago. New plantings have brought the current total to an estimated 24,000 acres, according to James Oxford, Brevard County Agricultrual Agent.

Federal agencies issue many different types of security badges permitting access through their gages. KSC is perhaps unique in issuing a badge for groveworkers.

The color of the badge - appropriately - is orange.

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KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-459-69

FOR RELEASE: November 1969

SPACE INVESTMENT RETURNS GREAT DIVIDENDS

KENNEDY SPACE CENTER, Fla., --Man's first steps on the Moon during the Apollo 11 mission last July marked the realization of an ancient dream.

Acclaimed around the world as a great historical and technological feat, the lunar exploration program's returns in scientific knowledge and national prestige remain to be fully assessed.

The nation's returns from its space investment are marked in more tangible and enduring forms than the headlines and ticker tape parades which followed man's first visit to another celestial body.

Communications satellites link the world's continents and their three billion inhabitants, weather satellites provide warnings of storms potentially dangerous to human life and property. And photographs from space have provided clues leading to the discovery and development of previously unsuspected sources of mineral and other natural resources.

The technological stimulus is great and techniques and devices developed for space exploration are finding their way into the nation's economy as a result of the NASA Technology Utilization Program.

"Since the establishment of KSC's Technology Utilization Program early in 1966," reports James T. Harrell, KSC Patent Counsel and Technology Utilization Officer, "620 items of new technology have been documented as the result of in-house (NASA) and contractor activities.

"At the present time, innovations are being made here at KSC at the average rate of one for every workday," said Harrell.

An estimated 1,000 inquiries from non-aerospace companies located in 38 different states have been answered on new technology items, according to Harrell. Many of them benefitted substantially from local techniques and know-how.

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"For example," said Harrell, " four different firms are now using a local management technique - called Vis-A-Plan - for tracking project events on a performance - time basis."

On a national basis, space activity is a forcing function in nine broad areas of technological innovation which the U.S. Department of Labor expects will have the greatest impact on future society.

These include the computerization of data processing; advanced instrumentation and process control; increased mechanization; progress in communications; advances in metal-working operations; developments in energy and power; new materials, produces and processes; and managerial techniques.

More than 3,000 items of new technology generated by the civilian space effort have been reported to the industrial, education and business communities through the NASA-wide Technology Utilization Program.

These communities bought 500,000 Tech Briefs describing such innovations in 1968 alone. Nearly 500 fee-paying industrial clients use the search-and-retrieval services of the TU Program's six dissemination centers.

Here are some samples of space-developed devices and techniques being adapted to non-space uses:

FUEL CELL - The fuel cell, which had lain dormant for many years, was put to use to supply electrical power for spacecraft. Twenty-eight natural gas companies now have a $20 million program for adaptation of the fuel cell for home power units.

MINIATURE TV CAMERA - A TV camera measuring only four inches by three inches by one and one-half inches was developed to observe Saturn stage separation during Apollo flights. Powered by batteries and weighing only 16 ounces, the camera is now on the commercial market.

TREMOR SENSOR - A sensor designed to count meteorite hits on a spacecraft is the basis of an instrument that, by measuring muscle tremors, may help doctors in early detection of a number of neurological ailments, including Parkinson's disease.

TEXTILES AND FABRICS - Research on clothing able to withstand the Moon's 250 degree heat and minus 240 degree cold should lead to suits which are lightweight, strong and corrosion resistant. Not impossible is thermo-electrical weave, which could replace bulky topcoats with a built-in automatic temperature control system. Brassiere manufacturers are giving American women a more comfortable uplift through a laminating technique invented to produce spacesuits.

PORTABLE PLANETARIUM - This novel educational device, now on the market, permits a student virtually at a glance to determine the relative positions of the planets on any given day between the years 1900 and 2000.

SOLAR CELLS - The prime source of electrical power for unmanned satellites and space probes, solar cells are now finding practical uses here on Earth. One example is their use to power the emergency radiotelephone system now in operation in California for stranded motorists.

UNDERSEAS PINGER - This device, originally developed to locate submerged space capsules and test rockets has been used to plot ocean currents and trace the movements of fish. Now being manufactured by two companies, the device was voted one of 1968's best 100 inventions.

These are only a few examples of the adaptation of space developed devices and techniques to uses outside the space program, applications which will play a major role in retaining the United States' world leadership in technological and scientific progress.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-460-69
FOR RELEASE: November 1969

KASEY 'GATOR BACK ON DUTY

KENNEDY SPACE CENTER, Fla.,--Kasey, the Spaceport's marshmallow-gobbling 'gator-in-residence with a recent penchant for travel is back on the job!

Kasey, one of two saurians placed in the pond in front of the Headquarters Building last July, missed muster one Monday morning in late October and remained on the AWOL roster for nearly weeks.

Not until early November did Kasey return to the pond where he was warmly greeted by his biggest fans - the KSC personnel who eat in the Headquarters cafeteria and take left over luncheon goodies out to the pond to help satisfy the 'gator's healthy appetite.

At first it was feared that Kasey had been brazenly poached and was on his way to becoming a wallet, belt or pair of shoes. But cooler heads conjectured that his fortnight's disappearance was brought about by the call of the wild or romance.

The three-foot 'gator, placed in the pond by Merritt Island National Wildlife Refuge (MINWR) personnel to help restore its natural ecology, had a good thing going.

The pond was later stocked with bass, bream, turtles and an albino catfish. Somewhat of a "ham" from the beginning, Kasey was soon cadging meals from cafeteria patrons. His favorites were marshmallows and garlic toast and his liking for sweets was such that there was serious concern that Kasey might be the first 'gator in history to suffer from candy-induced tooth decay.

Kasey officially became KSC's 'gator-in-residence in September when a Name the Gator contest was held to rescue him (or her -- sex has not been determined and should be a matter of concern only to another alligator) from anonymity. "Kasey", a play on the KSC acronym, was the winning name and was suggested by four Spaceport employees.

The other alligator had simply disappeared and was given the name - in absentia - of "Gone Gator".

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Other names in the top ten considered by the Name the Gator committee were Ollie Gator, Tranquility, Little Dipper, Apollogator, Gordo Gator and K-Cee Gator.

Tribute to his singular abilities as a trencherman came in the suggestions Lunchtime Louis and Moocher.

The Spaceport has an area of 88,000 acres, of which 83,796 acres is included in the wildlife refuge operated by the Department of the Interior's Fish and Wildlife Service.

The 'gator population in the MINWR is estimated at about 1,000 by Hal O'Conner, the manager. Almost two months of nearly incessant rainfall this fall has made the 'gator population more mobile and ten and 12 footers have been spotted as they take advantage of the elevation in Spaceport water levels.

O'Conner stressed that Kasey, despite his many sterling qualities, is not to be treated as a pet.

"You have nothing to fear as long as you don't get too close to try to pet him" said O'Conner.

Kasey continues to be an attraction and has apparently developed a built-in clock which brings him to the surface of the pond with eyes cast toward the Headquarters Building as lunch time nears.

Kasey has achieved meteoric fame for an alligator and his disappearance was duly reported by the resident press.

A wire service story brought an offer of an eight-foot long replacement from Earle Rossiter of the Pinellas County Planning Department in Clearwater on the Florida Gulf Coast.

The eight-footer was ensconced in a Clearwater Park and had reportedly reached a size where it was eyeing playing children as snacks rather than playmates.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-461-69
FOR RELEASE: November, 1969

KSC LAUNCH TEAM DIRECTS PREPARATION FOR APOLLO 12

KENNEDY SPACE CENTER, Fla.,--Under the overall guidance of Center Director Dr. Kurt H. Debus, Kennedy Space Center launch personnel lead a NASA/Industry team that will send the second manned lunar landing mission on its way at 11:22 a.m. November 14.

Serving under Dr. Debus are Albert F. Siepert, Deputy Director, Center Management, and Miles Ross, Deputy Director, Center Operations.

Apollo 12 Launch Director Walter J. Kapryan heads the Launch Operations Directorate. Serving under him are Dr. Hans F. Gruene, Director of Launch Vehicle Operations, and John Williams, Director of Spacecraft Operations.

Key KSC organizations providing direct support to Launch Operations are Technical Support, directed by Raymond L. Clark; Design Engineering, G. Merritt Preston; Installation Support, Frederic H. Miller and the Apollo Program Office, Edward R. Mathews.

The Apollo 12 mission is the payoff of months of work by thousands of Spaceport team members and a nucleus of about 500 technicians, engineers, test conductors and launch and support personnel who will be on hand in Firing Room 2 in the Launch Control Center of Launch Complex 39 and the spacecraft control rooms in the Manned Spacecraft Operations Building (MSOB).

From their firing room consoles, the NASA-industry launch group will bring together all phases of launch activities, culminating in the liftoff of Apollo 12.

Heading the work leading to launch are Paul Donnelly, Launch Operations Manager; Isom A. Rigell, Chief Engineer, Launch Vehicle Operations; Andrew J. Pickett, Test Operations Manager, Launch Vehicle Operations; George Page, Chief, Operations Division, Spacecraft Operations; Ted Sasseen, Chief, Engineering Division, Spacecraft Operations.

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James Harrington, Test Supervisor; Ray Roberts, Launch Vehicle Test Conductor; C. A. Chauvin, Command-Service Module (CSM) Test Conductor; Fritz Widick, Lunar Module (LM) Test Conductor; Joe Barfus, LC-39 Test Support Manager; and Bob MacCurry, Test Support Controller.

A computer system capable of processing 24,000 samples of test data per second has kept a close eye on spacecraft systems since flight hardware first arrived at KSC.

Known as the Acceptance Checkout Equipment (ACE) system, it will monitor and control the Apollo 12 spacecraft around the clock until it clears the mobile launcher at liftoff.

ACE can handle approximately 3,500 different spacecraft measurements, most of them taken automatically, and is operated under Page's direction.

The Engineering Division headed by Sasseen is responsible for all engineering functions related to the CSM and LM.

Harrington, in Launch Operations, holds daily meetings with his test conductors to discuss scheduling, problem areas and specialized test requirements.

Roberts, representing Launch Vehicle Operations, has four contractor test conductors who report on the progress of their stages.

Chauvin, Spacecraft Operations, is responsible for the preparation of the CSM.

The responsibility for overseeing the LM work rests with Widick, also of Spacecraft Operations.

Barfus is in charge of coordinating and working out any real time problems that occur to support equipment operated by Technical Support. Some of the items under Barfus' jurisdiction are communications, operational TV, mobile service structure move from the pad to the park site, closing out of the pad, mobile launcher and emergency fire control system.

Technical Support, under Clark, is a multi-purpose organization with an extensive slate of assignments. The directorate manages data systems employed to checkout and launch Apollo 12 and operates launch complex support facilities.

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After liftoff, Technical Support's Information Systems, headed by Karl Sendler, receives and routes flight telemetry data to the Mission Control Center in Houston. Sendler's group also produces and displays almost every kind of technical information needed for the conduct of launch operations.

Mechanical responsibilities of Technical Support are carried out by Support Operations, under the direction of Robert E. Gorman. Other duties of Support Operations include propellant logistics, life support, and operation of the spacecraft egress system, the malfunction investigation laboratory and technical shops.

The Design Engineering Directorate has conducted a thorough engineering analysis of facilities and ground support equipment at the Spaceport, with emphasis on the critical areas.

Director Preston's group has the continuing responsibility for designing required modifications for facilities and equipment. These modifications are made to improve operational efficiency, to reduce assembly and checkout time, to reduce costs and to promote safety.

The Installation Support Directorate, under Miller, is responsible for the general operation and maintenance of the installation and furnishes services keyed specifically to launch operations and other general services at KSC.

These include security, fire protection, and rescue and medical support in addition to a host of other duties which must be performed to keep the Spaceport functioning smoothly.

The Apollo Program Office at KSC insures the conduct of complete, thorough and very disciplined reviews of possible launch constraints.

Mathews office also verifies that the Director of Launch Operations has an operable complex and full and complete support for the countdown and liftoff.

Other key management executives at KSC include:

Thomas W. Morgan, Director of Apollo Applications Program; George A. Van Staden, Director of Administration; Robert H. Gray, Director of Unmanned Launch Operations; John R. Atkins, Safety Director; Robert A. McDaris, Director of Quality Assurance; J. P. Lacy, Chief Counsel; and Gordon L. Harris, Chief of the Public Affairs Office.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC 462-69

FOR RELEASE: November 10, 1969

APOLLO 12 AIMING POINT CHANGE

KENNEDY SPACE CENTER, Fla.--Apollo 12 Lunar Module guidance system targeting for the Site 7 landing point in the Ocean of Storms has been changed to the location of the Surveyor 3 spacecraft.

The previously planned aiming point was 1,118 feet northeast of where Surveyor rests on the inter slope of a crater.

Coordinates of the Surveyor 3 location are 2.990 south latitude by 23.403 west longitude; the original Apollo 12 aiming point was 2.982 south latitude by 23.392 west longitude.

The retargeting has been accomplished to improve the crew's ability to observe the planned landing point during the latter portion of the descent.

The visibility benefits of the retargeting were first developed analytically and then verified by the crew in the Lunar Module Simulator. It does not change any crew onboard procedures.

Surveyor 3 soft landed on the lunar surface April 19, 1967.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-464-69
FOR RELEASE: November 12, 1969

SIEPERT TO LEAVE KSC

KENNEDY SPACE CENTER, Fla.,--Albert F. Siepert, the Deputy Director, Center Management, is leaving the Kennedy Space Center about December 1, 1969, to become a Program Associate at the University of Michigan's Institute for Social Research. He will be the Project Manager for a large scale organizational research study which involves, and is sponsored by, the General Motors Corporation.

Announcing Mr. Siepert's action today, Dr. Kurt H. Debus, Center Director, commended his Deputy for outstanding service to the national space program from its inception in October, 1958,to the present, and for successful management contributions throughout a career in the Federal service which began in 1937.

Mr. Siepert has worked closely with Dr. Debus since 1963 when he came to Florida as his immediate Deputy. His primary responsibility in this Center involved the development of organizational and management structures as KSC grew from about 2,500 to 26,500 personnel in September, 1968.

Mr. Siepert played key roles in the integration within KSC of the several launch teams which formerly operated here under management of the Marshall Space Flight Center, the Goddard Space Flight Center and the Manned Spacecraft Center. For this contribution, NASA last year conferred upon Mr. Siepert its Exceptional Service Medal. In October, 1969, after the Apollo manned lunar landing has been achieved, NASA also awarded him its highest recognition, the Distinguished Service Medal.

While residing in Brevard County, Mr. Siepert took active part in formulating KSC's relationship with the community and the State of Florida. He served on the Merritt Island Library Board and was an advisor to the Florida Technological University during the period of its organization.

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Before joining NASA in 1958, he was executive officer of the National Institutes of Health, the Federal Government's largest medical research facility. In 1959 he was NASA's chief negotiator in arranging transfer of the Army rocket development team and its facilities from the military to NASA. This included the staff and resources of the Missile Firing Laboratory directed by Dr. Debus which became the nucleus of the Kennedy Space Center.

Mr. Siepert is a graduate of Bradley University and pursued graduate study in public administration at American University. An authority on research and development management, Mr. Siepert has contributed to four books dealing with this subject.

He received Bradley's Distinguished Alumnus Award in 1960. He also received the Distinguished Service Award of the Department of Health, Education and Welfare, in 1955, and the Arthur Fleming Award in 1950.

Mr. and Mrs. Siepert now reside at 1125 Carrigan Boulevard, Merritt Island. They will make their new home in Ann Arbor, Michigan.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-465-69
FOR RELEASE: November 13, 1969

IMP TEAMS WITH APOLLO 12

KENNEDY SPACE CENTER, Fla.,--Part of the scientific package being left on the lunar surface by the Apollo 12 astronauts will be teamed with a 148-pound satellite, the Interplanetary Monitoring Platform-E (IMP-E or Explorer 35), sixth in the IMP series, which has been orbiting the Moon since July 1967.

The purpose of the scientific measurements they will be making is to see if a lunar magnetic field can be detected, which would give scientists information to help determine the Moon's structure and composition.

If there is any magnetic field at all--none has been detected so far--it would deflect a certain number of electrons and protons that come from the Sun. If there are fewer particles striking the surface than the spacecraft, it would indicate a magnetic field exists.

After Apollo 11, the first lunar landing, it was found that the surface of the Moon held great quantities of solar particles.

The seven instruments aboard the lunar-anchored IMP include a magnetometer and several detectors to measure the solar wind. Measurements obtained by these instruments will be correlated with magnetometer and solar wind detectors on the lunar surface.

The lunar-anchored IMP was launched from Cape Kennedy, Fla. July 19, 1967, and placed in a looping orbit around the Moon. Its orbit now is about 500 by 5000 statute miles.

Explorer 41 (IMP-G) in Earth orbit, and Pioneers 8 and 9 in orbits around the Sun, will transmit information on solar flare activity before and during the Apollo 12 mission scheduled for launch November 14. Should dangerous radiation from the Sun be detected by the spacecraft, the information would immediately be transmitted to Mission Control in Houston.

This solar warning network has been active in previous Apollo missions and is designed to give early warning of dangerous solar activity. For example, a Pioneer may pick up activity, a sudden rise in radiation or solar flare signs, on the side of the Sun that has yet to rotate toward Earth.

This warning is immediately transmitted to Earth and spacecraft nearer Earth are watched to see if they record such activity as the Sun turns on its axis. If the solar activity continues or seems dangerous to man-in-space, a mission can be delayed or the astronauts returned to Earth early if the mission is underway.

In addition, a Solar Particle Alert Network, a world-wide network of solar and radio telescopes, observe the Sun 24 hours a day to detect solar flares that may be dangerous to the mission. It is operated by NASA, the Environmental Science Services Administration and the Air Force. Reports are relayed to MSC at Houston

KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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news release

RELEASE NO: KSC-466-69

FOR RELEASE: November 14, 1969

MARSHALL SPACE FLIGHT CENTER, Ala.,--An S-II stage was successfully static tested at the Marshall Space Flight Center Mississippi Test Facility today. The duration of the firing was approximately 6 minutes.

This stage, S-II-11, will be the second stage of Saturn V vehicle 511. The stage is manufactured by North American Rockwell Corporation and was tested by a joint Marshall-North American test team.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-467-69
FOR RELEASE: November 19, 1969

DELTA LAUNCHES RESUME

WASHINGTON, D.C.,--Resumption of launch operations for spacecraft using the Delta launch vehicle was recommended today by a National Aeronautics and Space Administration Launch Vehicle Review Board in an interim report.

The first mission to be affected by the board's recommendation will be the launch of the British Skynet communications satellite, now scheduled for 7:37 p.m. EST November 21, at Cape Kennedy. The Skynet launch marks the 74th use of the Delta launch vehicle.

In making its interim report, the Launch Vehicle Review Board headed by Vincent L. Johnson, Deputy Associate Administrator (Engineering) for NASA's Office of Space Science and Applications, reviewed the findings of a Failure Review Board headed by Merland Moseson, Deputy Assistant Director of the Systems Reliability Directorate at the Goddard Space Flight Center, Greenbelt, Md.

The Moseson group was concerned with specific failures associated with Delta 71, July 26, 1969, carrying Intelsat III F-5 as its payload, and with Delta 73, August 27, 1969, with the Pioneer-E spacecraft as a payload. The Delta vehicle has not been used since the Pioneer failure.

The Delta 71 failure was associated with its third stage TE364 motor, believed to have failed as the result of a rupture of the motor case or failure of the nozzle. The Goddard board assumed that failure was related to the particular Delta 71 motor and after testing found no specific faults in its design. Additions of internal insulation, plus equipment X-rays and additional pressure tests at the launch site have been ordered in connection with the Delta 74/ Skynet launch.

The malfunction of the Delta 73 first stage hydraulic system, caused by a "chattering" or vibrating relief vaive resulting in a hydraulic oil leak, was determined as the cause of the failure. Hydraulic fluid and pressure were lost, causing the vehicle to veer off course. Specially tested and selected valves have replaced former equipment and the Delta vehicle for the Skynet mission has undergone new acceptance tests of its hydraulic system.

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Corrective actions ordered and completed resulted in the Launch Vehicle Review Board's recommendation to resume Delta launchings. An overall review of the Delta program by the Johnson group continues to concern itself with opportunities to improve management, failure reporting, manufacturing and testing procedures, including improved liaison between contractors and NASA. A final report by the board is planned at an early date.

Other near-term missions involving Delta include the launch of Intelsat III F-6 from Cape Kennedy, tentatively scheduled for December 19, and Tiros-M, scheduled for launch from the Western Test Range in January 1970.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-468-69
FOR RELEASE: Immediate

November 22, 1969

FRENCH INDUSTRY, SCIENCE OFFICIALS TO VISIT SPACEPORT

KENNEDY SPACE CENTER, Fla. -- A French scientific and industrial group headed by Francois-Xavier Ortoli, Minister for Industrial Development and Scientific Research, will tour the United States' Spaceport here Sunday.

This is Minister Ortoli's first visit to this country since his appointment several months ago. While in the United States, he has appointments with a number of Cabinet officers and Dr. Lee Dubridge, President Richard M. Nixon's Science Advisor.

Minister Ortoli will be greeted on his arrival at the Holiday Inn at Titusville Saturday night by Paul Donnelly, KSC Launch Operations Manager.

Making the visit with Minister Ortoli will be Pierre Esteva, Chief of the Minister's Personal Staff; Pierre Aigrain, General Delegate, Scientific and Technical Research; Pierre Laurent, Director of the Bureau of Cultural, Scientific and Technical Affairs in the Ministry of Foreign Affairs; Maurice Levy, Scientific Counselor to the French Embassy.

Raymond Serradeil, Scientific Attache in charge of space problems; Jean Le Cannellier, Consul General de France in New Orleans; Edgar Piret, Scientific Counselor to the American Embassy in Paris; M. J. Rimet, Commercial Counselor, New Orleans, and Romaine Zaleski, Technical Advisor to the Minister.

Minister Ortoli's interests at the Spaceport include a general overview of the Kennedy Space Center and Project Apollo, including the interlocking activities of NASA, the Air Force and industrial firms.

Don Phillips, KSC Chief Test Supervisor, will be the briefer for a tour which includes the spacecraft activities in the Manned Spacecraft Operations Building and such Launch Complex 39 facilities as the Launch Control Center, Vehicle Assembly Building, the transporters and Pad A.

The VAB tour will include a stop at the Mobile Launcher on which the Saturn V for Apollo 13, scheduled for launch next spring, has been assembled.

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PUBLIC INFORMATION OFFICE, AREA CODE 305-867-2468

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-469-69

FOR RELEASE: Immediate

November 19, 1969

DELTA LAUNCH VEHICLE REPORT COMPLETE

GODDARD SPACE FLIGHT CENTER, Md. -- A 13-man NASA Failure Review Board has completed an interim report on two failures of the Delta launch vehicle.

The first of two failures investigated by the Board, Delta #71, occurred July 25, 1969, when the third stage rocket failed to place a communications satellite (Intelsat III-E) into the proper orbit.

The second failure, Delta #73, occurred a month later (Aug. 27) when a range safety officer destroyed the Delta during second stage powered flight because it had veered off course. Delta #73 was to have orbited a scientific spacecraft, Pioneer-E, into orbit around the Sun.

After several weeks of intensive study the board concluded that Delta #71's failure was due to an explosive rupture of the third stage (TE-364) motor approximately 27 seconds after ignition. The precise cause of the rupture cannot be established (there was no telemetry on the third stage) but it is not considered to be attributable to the basic design of the motor.

The board further concluded that the Delta #73 failure resulted from the high pressure relief valve in the first stage hydraulic system operating in an unstable way. The severe environment (vibration) created by the unstable valve then produced a hydraulic fluid leak; either through a fractured line or a loosened joint.

In reviewing the available Delta #71 data, the board concluded that the first two stages performed normally, the shroud surrounding the spacecraft separated properly, and the third stage delivered a significant fraction of the expected velocity.

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However, when the Intelsat spacecraft was not acquired by a tracking station at the proper time, officials reviewed radar tracking data which showed the spacecraft in the wrong orbit ranging from 169-3352 miles (statute). The intended parking orbit was to have been 173 for perigee and 22,865 miles (statute) for the apogee.

The following are possible failure mechanisms for the third stage used on Delta #71:

Leakage, due to improper assembly at any of the joints at the igniter or nozzle closure;

Excessive heating of aluminum nozzle closure flange leading to structural failure;

Premature release of yo yo weight resulting in impact with the motor case causing case failure; or

Undetected defect in materials or workmanship.

To prevent future failures in the third stage, the board recommended re-inspection of all solid propellant units as well as pressure checks of all seals -- at the launch site-through visual and x-ray inspection.

The board further recommended that third stages of Delta vehicles be instrumented with telemetry packages to permit post-flight verification of all significant flight events.

Delta #73, carrying the scientific Pioneer-E spacecraft, performed normally until two seconds before the first stage Thor burned out.

Although the second stage separated and ignited after the vehicle began tumbling, ground control and attitude reference were lost, and a range safety officer destroyed the vehicle approximately eight minutes after lift-off.

Examination of flight telemetry data showed that the failure resulted from a loss of hydraulic pressure to the first stage engine steering mechanism. A high pressure relief valve, operating in an unstable way, caused a severe vibration which then broke a hydraulic line or loosened a fitting. This chain of events caused depletion of hydraulic fluid and ultimate loss of control of the launch vehicle.

This hydraulic system had not failed in more than 200 Thor launchings. Major recommendations made by the review committee as a result of the Delta #73 flight are:

> High pressure relief valves should be more thoroughly screened and evaluated before being accepted for flight;
>
> Plumbing in the hydraulics system of the first stage should be re-routed so total hydraulic systems tests can be run at the launch site;
>
> More extensive testing should be made to determine the durability of the first stage hydraulic system; and
>
> Minor design improvement changes should be made to the high pressure relief valve system and to the high pressure line supports.

There have been 73 Delta launchings since the maiden flight in 1960, of which 67 successfully orbited their spacecraft.

The review board, headed by Merland L. Moseson of NASA's Goddard Space Flight Center, consisted of members from other NASA field centers, Jet Propulsion Laboratory, United States Air Force and the Communications Satellite Corporation. Additionally, 15 consultants and observers from NASA and private industry assisted in the investigation.

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KSC

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-470-69
FOR RELEASE: Immediate

November 21, 1969

AWARDS CEREMONIES TO BE HELD AT KSC

KENNEDY SPACE CENTER, Fla. -- The 1969 awards ceremonies at the Kennedy Space Center will have a distinct Apollo flavor.

The year's awards will be given to KSC personnel in recognition of outstanding achievement in the Apollo moon landing program. The program was highlighted last July when the first Americans landed on the moon using a space vehicle assembled, checked out and launched at KSC.

Another feature of the 1969 ceremonies is the institution of a new category of awards. It is called the Award of Commendation and becomes the highest recognition to be bestowed by the Center.

The previous highest award, for Superior Achievement, will continue to be given.

Billy J. Martin, KSC Incentive Awards Officer, said that about 50 of the new Commendation Awards and about 100 Superior Achievement Awards will be presented at Monday's ceremonies.

Group Achievement, Suggestion and Cost Reduction Awards also will be given.

The ceremonies will begin at 10 a.m. in front of the KSC Headquarters Building. In case of rain they will be moved to the Training Auditorium.

Dr. Kurt H. Debus, Center Director, will make the presentations. Master of ceremonies will be Albert F. Siepert, Deputy Director, Center Management.

It will be Siepert's last opportunity to officiate as he has done each year since the award ceremonies originated in 1965. Siepert is leaving KSC for a post at the University of Michigan.

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PUBLIC INFORMATION OFFICE, AREA CODE 305-867-2468

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-472-69
FOR RELEASE: November 22, 1969

SKYNET LAUNCH SUCCESSFUL

KENNEDY SPACE CENTER, Fla.,--A British Skynet communications satellite launched from Cape Kennedy atop a Thrust Augmented Delta Friday at 7:37 p.m. is to be placed into a synchronous or hovering orbit by its onboard "kick" motor Sunday at 9:30 p.m.

The Delta lifted off from Complex 17 on schedule and performed flawlessly to place the 535-pound satellite into an elliptical orbit with an apogee of 23,028 statute miles and a perigee of 160.5 statute miles. For the Delta, NASA's workhouse booster for light payloads, it marked the 68th success in 74 launches.

At 9:30 p.m. EST Sunday, November 23, the satellite's onboard rocket motor will be fired to anchor it in a hovering orbit 22,300 miles over the equator off the East Coast of Africa.

The satellite is one of two developed by the U.S. Air Force for the British Government. Following the launch phase, control was passed to the Air Force Satellite Control Facility at Sunnyvale, Calif.

An estimated three weeks will be required for the satellite to reach its station at about 45 degrees East longitude.

Once on station, the satellite will be handed over to the British Government and control will pass to the Royal Air Force.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-473-69
FOR RELEASE: December 2, 1969

FLORIDA RECEIVES $403 MILLION IN NASA CONTRACTS

KENNEDY SPACE CENTER, Fla.,--Florida ranked second among the States receiving NASA prime contracts during FY 1969, according to the agency's annual summary.

Awards to firms in Florida, most of them concentrated around the Kennedy Space Center, totaled $403,632,000 or 13.1 percent of the $3,065,922,000 NASA awarded throughout the country.

California ranked No. 1 with $1,045,855,000.

In the manned spaceflight contract awards, included in the totals, Florida again took second place with $350,727,000 or 16 percent. The total was $2,186,002,000.

Florida ranked first, however, in non-programmatic contracts with $36,653,000 or 29.1 percent.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release #75

RELEASE NO: KSC-474-69
FOR RELEASE: December 4, 1969

SPACE EMPLOYMENT SHOWS NATIONWIDE DECLINE

KENNEDY SPACE CENTER, Fla.,--A NASA-wide survey of space employment during the year ended June 30, 1969 indicated the declining trend which began in 1966 has continued.

Total employment stood at 218,000, of which the permanent Civil Service work force comprised 15 percent or approximately 32,000.

Kennedy's Government employees declined 40 during the year to 2,877. The average salary grade here was GS 10.7.

Government personnel at KSC averaged in age 40 years for males and 37 for females. The ratio of supervisors to the Civil Service force was 17.5 percent. Almost 18 percent of the employees received promotions during the year.

KSC's accession rate in FY 1969 for permanent employees was 6 percent compared to a separation rate of 7.6 percent.

The Center provided jobs for 86 Summer employees, 17 who work while attending school, 83 handicapped persons, 43 cooperative students who attend college part of the time, and 56 other students who are not in pay status.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 5 1969

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news release

#75

RELEASE NO: KSC-477-69
FOR RELEASE: December 4, 1969

SPACEPORT PROPELLANT CONFERENCE ENDS

KENNEDY SPACE CENTER, Fla.,--A three-day, NASA-wide propellants conference was concluded here on Thursday. It was the first of a proposed series of annual meetings on NASA propellant management.

The conference, attended by about 140 peopellant management experts, began Tuesday with all business sessions held in the Mission Briefing Room at the Manned Spacecraft Operations Building.

"It was a resounding success," said William R. Harwood, Chief, Propellants and Pressurants, Industrial Facilities and Cryogenics Division, NASA Headquarters. "Its success was due particularly to the support given us at KSC in the form of tremendous papers and the active participation of its technical staffers.

"The best idea of all was to have it at Kennedy," Harwood said. The conference was designed to identify and solve propellant problems through cooperative effort.

The conference, chaired by General Robert H. Curtin, Director of Facilities, NASA Headquarters, opened with a greeting to KSC by Raymond Clark, KSC Director of Technical Support.

Speakers during the three-day meeting represented NASA, the Air Force and the industrial concerns which supply propellants and the facilities for handling them.

Topics included all phases of procuring, transporting and handling exotic, sometimes tricky propellants such as liquid oxygen and liquid hydrogen and pressurants such as nitrogen and helium.

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Participants included Major Charles N. D. Smith, Aerospace Assistant to the Executive Secretary, National Aeronautics and Space Council; Roy L. Bullock, Director, Industrial Facilities and Cryogenics Division, NASA Headquarters; Colonel William E. Steger, Director, Air Force Aerospace Fuels, and R. D. Haynes, Bureau of Mines, Helium Operations.

Among the Tuesday speakers was Robert Gorman, Director of Support Operations, KSC.

The Tuesday session was capped with a dinner meeting at the Rainbow Room on Cocoa Beach with Bernard Moritz, Acting Associate Administrator for Organization and Management, NASA Headquarters, as the speaker.

The three-day conference came to a formal end Thursday morning with the afternoon devoted to a tour of Kennedy Space Center facilities.

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KSC
KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-478-69
FOR RELEASE: December 8, 1969

INTREPID HAS SOUTH AFRICAN NAMESAKE

KENNEDY SPACE CENTER, Fla.,--Intrepid, the lunar module of the Apollo 12 spacecraft launched on a lunar landing mission from KSC on November 14, has a namesake in a South African game preserve.

The copycat is a lusty 65-pound rhinoceros bull calf which arrived the same day that the lunar module manned by Astronauts Charles Conrad, Jr. and Alan L. Bean landed on the Ocean of Storms near the Surveyor III spacecraft.

A copy of the Rand Daily Mail for November 26 mailed to the KSC Public Information Office by Edward Van Wyk, Brenthurst, Brakpan, Republic of South Africa, tells the story:

"That extremely rare event, the birth of a rhinoceros bull calf outside the confines of Zululand, has occurred in the Emfuleni Nature Reserve on the Transvaal bank of the Vaal River at Vanderbikipark.

"The 65-pound infant landed on earth on the same night as the lunar module Intrepid landed on the moon's surface. So, he has been christened Intrepid.

"His mother, two-ton Kleintjie, and he are both well. Intrepid is as frisky as a young lamb.

"They are both far from camera shy. While Kleintjie would not allow father and two other three-ton mastoden to approach within 50 yards of the new arrival, she permitted a photographer to come within a few feet."

A four-column photograph shows "Intrepid" at his mother's side with papa and an another unidentified rhino standing far in the background.

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Van Wyk notes in an accompanying note:

"Accept my congratulations on an achievement which only the Americans are capable of at this stage of man's development. This will show your Astronauts that we thought of them and that we hope that they will someday come and have a look at the Rhino."

The Rand Daily Mail story notes that "Intrepid" is traveling in select company:

"Intrepid is one of the first rhino calves to have been conceived and born outside the confines of Zululand. He is the second calf to be born in the reserve.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

DEC 9 1969

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RELEASE NO: KSC-479-69
FOR RELEASE: December 8, 1969

MARK SMITH, DEPUTY CHIEF OF KSC PERSONNEL OFFICE, DIES SUNDAY

KENNEDY SPACE CENTER, Fla.,--Mark E. Smith, 45, Deputy Chief of the Personnel Office at the Kennedy Space Center, died at his home in Titusville early Sunday.

A Rosary is scheduled at 8:30 p.m. Monday in the Smith Funeral Home Chapel in Titusville. Following this service, his body will be transferred to Loogootee, Indiana, for burial.

Smith, who joined the National Aeronautics and Space Administration at the Marshall Space Flight Center in Huntsville, Alabama in 1960, transferred to this area in 1962 about three months before KSC was officially established to help set up personnel arrangements.

Survivors include his wife, Norma, and five children, Mark, Jr., Francis, Melissa, Susan and Therese.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-480-69
FOR RELEASE: December 9, 1969

DR. DEBUS ANNOUNCES PLANS TO ACTIVATE LC-34 FOR APOLLO APPLICATIONS PROGRAM

KENNEDY SPACE CENTER, Fla.,--Dr. Kurt H. Debus, Director of the Kennedy Space Center, reports that Launch Complex 34 will be utilized for the Apollo Applications (AAP) Program manned launches beginning in 1972.

KSC's AAP Director, Tom Morgan, said initiation of design of AAP modifications to LC-34 will begin about January 1, 1970. Installation of AAP modifications will follow about August 1, 1970.

The current modifications cost estimate of $3.7 million bringing the launch pad to a state of readiness includes:

Service structure, $225,000; spacecraft piping, $100,000; electrical and communications, $75,000; emergency egress, $300,000; relocation of spacecraft hypergolic servicing pads, $600,000; place converter compressor facility in remote control mode, $400,000; truck system rehabilitation, $600,000; service structure reinforcement, $450,000; elevator replacement, $650,000; and miscellaneous structural repair and painting, $300,000.

On nearby Launch Complex 37, planning is proceeding to phase it to a minimum maintenance configuration beginning January 1.

LC-34, completed on Cape Kennedy in 1961, was the first operational launch site for the Saturn 1 vehicle and for the first manned Apollo mission, Apollo 7 on October 11, 1968.

To date, a total of seven Saturn 1 and Saturn 1B's have been launched from LC-39. In AAP, Saturn IB vehicles will be utilized to transport astronauts to an Orbital Workshop where they will perform various scientific and space flight functions and operate the Apollo Telescope Mount.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 17 1969

news release

RELEASE NO: KSC-483-69

FOR RELEASE: December 17, 1969

SUCCESS OF COMPLEX 99 HIGHLIGHTS KARS' YEAR

KENNEDY SPACE CENTER, Fla.--The full-scale operation of the popular Complex 99 recreational area -- utilized by more than 160,000 in daily admissions throughout 1969 -- highlights the year for the Kennedy Athletic, Recreation and Social (KARS) Exchange Branch.

Under the executive leadership of KARS 1969 President Tom Davis and the field guidance of Recreation Director Dan McMonagle, Complex 99 was carved out of the rough into a scenic, functional recreational area without losing the outdoors flavor.

The funds for KARS and Complex 99 are administered through the NASA Exchange Council at the Kennedy Space Center (KSC) and are drived from a small percentage of the profits from KSC cafeterias and food vending machines.

Complex 99, located three miles east of State Road 3 about two miles north of the Barge Canal on KSC property, offers the following facilities for NASA and contractor employees:

--Spacious, tree shaded areas for picnicking and camping, complete with 30 barbeque grills and a large barbeque pit, running water, three rest room facilities, 14 aluminum canopies, and more than 100 eight and ten-person picnic tables. The picnic areas may be used by individuals, family groups or by large organizational groups numbering in the hundreds.

--A fresh-water swimming lake that is 180 feet in diameter and features a 30-foot slide and a floating platform in the middle.

--A boat marina, including a protected basin, launching ramp, docks and reinforced seawall.

--Fenced playground facilities for children plus open swing areas.

--Sports facilities, including shuffleboard, horseshoe, volleyball and tennis courts and an area being prepared for softball fields.

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-- A skeet and trap shooting range, clubhouse and barbeque pit operated by the self-supporting Shooting Club.

During the year, some 2,760 boats utilized the marina and 1,202 overnight camping units came into Complex 99.

In other KARS activities during the year, hundreds of KSC employees and their families have taken advantage of arrangements made by the Travel Committee for trips to different points in Florida and to various foreign points of interest.

In competitive sports, KARS sponsored men's and women's basketball, bowling, golf, Shooting Club, softball, tennis, volleyball and AIKIKAI.

Listed under KARS Arts, Crafts and Clubs organization during 1969 were KSC Chorus, Spaceport Flyers, KSC Barracudas, Scuba Club, KSC Radio Control Flying Club, Amateur Radio Club, Ceramic Club, Philatelic Society, Moon Port Flyers, Chess Club, KARS Flying Club and Photo Club.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 17 1969

news release

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#75

RELEASE NO: KSC-487-69
FOR RELEASE: December 16, 1969

KSC TO HOLD TREE-LIGHTING CEREMONIES

KENNEDY SPACE CENTER, Fla.,--The Spaceport will light its Christmas tree at 3:30 p.m. Thursday.

Ceremonies will be held in front of the Headquarters building with KSC personnel invited to attend.

The tree, a 25-foot cedar, was taken from a wooded area in the northern part of the Center and transplanted near the pond at the Headquarters building.

Participating in the lighting ceremonies will be the Merritt Island Mustang Chorale, led by Nat Chambliss, choral director of the Merritt Island High School.

Dr. Kurt H. Debus, KSC Director, will address the audience.

An invocation will be given by the Rev. Frank M. Butler, Rector, St. David's by the Sea Episcopal Church, Cocoa Beach.

The tree will be lighted by Dugald O. Black, Deputy Director Support Operations and president of the NASA Exchange Council which supplied the tree decorations through its Kennedy Athletic, Recreation and Social Branch (KARS).

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

DEC 16 1969
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#75

RELEASE NO: KSC-488-69
FOR RELEASE: December 15, 1969

APOLLO 12 ASTRONAUTS RETURN TO KSC

KENNEDY SPACE CENTER, Fla.,--The Apollo 12 astronauts Charles (Pete) Conrad, Jr., Richard F. Gordon and Alan L. Bean, will return to Kennedy Space Center Wednesday, December 17, for a brief reunion with the Government-industry team that launched them on their journey to the moon.

The astronauts will meet the Center personnel in the transfer aisle of the Vehicle Assembly Building at 10:00 a.m. They will be greeted by Dr. Kurt H. Debus, the Center Director, and introduced to the KSC team.

The crew's public appearances will be scheduled after they visit the White House on December 20.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

DEC 16 1969
2A.3
#75

RELEASE NO: KSC-489-69
FOR RELEASE: December 15, 1969

COMMUNITY LEADERS ATTEND APOLLO 13 ROLLOUT

KENNEDY SPACE CENTER, Fla.,--A group of Brevard community leaders were on hand at dawn today when the Apollo 13 space vehicle was rolled out of the Vehicle Assembly Building and taken to its launch pad for a March 12 launch.

Apollo 13 will be the nation's third mission to land astronauts on the surface of the moon. It will be manned by Astronauts James A. Lovell, Jr.; Thomas K. Mattingly II, and Fred W. Haise, Jr.

The local leaders who watched the Apollo/Saturn V vehicle and its launch tower begin its passage to the pad were:

Mayors Percy Hedgecock of Satellite Beach, Harold Peters of Melbourne Village, Fred Christ of Indian Harbour Beach and Arthur Tate of Cocoa; State Representative Richard Tillman of Cocoa Beach; Wesley H. Houser, president Cape Kennedy Area Chamber of Commerce, and Dudley Jewell, executive director of the CK C of C; Dr. Meredith J. Eberhart, president Titusville Chamber of Commerce, and Timothy Points, executive vice president of the Titusville C of C.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 17 1969 2A.3 #75

news release

RELEASE NO: KSC-490-69
FOR RELEASE: December 18, 1969
2:00 p.m.

KSC TRANSPORTERS' AWARD ACCEPTED BY BUCHANAN

KENNEDY SPACE CENTER, Fla.,--The world's most prestigious automobile transport honor - the Diamond Jubilee Trophy of Great Britain's Royal Automobile Club - was presented to the United States at ceremonies held in London this afternoon.

The award was presented to the National Aeronautics and Space Administration, Donald D. Buchanan, Complex 39 Engineering Manager, John F. Kennedy Space Center, Fla., and the Marion Power Shovel Company "for the design, development and construction of the Crawler-Transporter which provides mobility to the space vehicle structures required by the Apollo lunar landing program, an outstanding contribution in the field of automotive transport."

The trophy, commemorating the Diamond Jubilee of the RAC in 1957, has been awarded only twice previously although nominations are invited each year from all over the world.

In 1958, it went to Sir Vivian Fuchs, his chief engineer, David Pratt, and their companions on the Trans-Antarctic Expedition. Then, in 1962, it was awarded to Christopher Cockerell, inventor of the Hovercraft.

NASA was represented at the presentation by Buchanan, who played a lead role in the development of the transporter, key to the mobile launch concept envisioned by KSC Director Dr. Kurt H. Debus as the most satisfactory and efficient method of handling flight hardware of the magnitude and sophistication necessary for the United States' manned lunar landing program - Project Apollo.

Marion Power Shovel, builder of KSC's two transporters, was represented by Philip A. Koehring, its Chief Value Engineer.

The presentation ceremony was followed by a dinner with Buchanan showing films of the transporters in operation and demonstrating their application with a large scale model.

It was in 1961 that the late President Kennedy established a manned lunar landing as a national goal to be achieved before the end of this decade.

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Designing and building the launch facilities needed to support this tremendous effort was the responsibility of the Kennedy Space Center.

The giant Saturn V launch vehicle and three-man Apollo spacecraft dwarfed anything flown previously and Dr. Debus, a rocketry pioneer with launch experience extending back into the 1930s, found it apparent that meeting the new and challenging goal of a manned lunar landing would require dropping old launch concepts and formulating new ones.

He was convinced by experience that a more efficient method than assembling and checking out a space vehicle on the pad from which it would be launched must be found to cope with flight hardware in the Saturn V category and his early sketches envisioned a mobile concept.

The rocket would be assembled and checked out with the spacecraft in the protected environment of a building. It would be transferred to the pad only when almost ready for flight. The space vehicle and its mobile launcher would weigh more than 12 million pounds - the distance from the Vehicle Assembly Building to Pad A would be 3.5 miles, to Pad B 5 miles.

The responsibility for transforming the mobility concept to reality fell upon Buchanan, then chief of the Launcher Systems and Umbilical Tower Design Section.

Buchanan recalls that the transporter was at one time viewed as the "dark horse" of the three premary modes of transportation under study to bring mobility to Complex 39.

More than a year of study preceded a 1962 report by Buchanan recommending the transporter's selection over two primary competing methods - rail and barges.

A rail system, the study found, would be inordinately expensive. The barge system would be faced with stability problems.

It was first propsoed to make the transporters integral parts of the mobile launchers. This would have exposed them to launch damage and tied them up for long periods. But the Buchanan study also noted that money could be saved by separating the transporter from the mobile launcher; two transporters could service at least six mobile launchers.

"The transporter was not economical until we separated the transporter from the mobile launchers," said Buchanan. "The idea became more feasible when it became an independent transporter for then it would not be exposed to the launch environment."

KSC management accepted the transporter concept in June, 1962, and NASA Headquarters in Washington, D.C., approved it the following month.

Two large equipemnt manufacturers competed for the contract to manufacture two crawler transporters. The Marion Power Shovel Co., Marion, Ohio, was awarded the contract in March, 1963.

Less than two years were to pass before the first of the two transporters had been built, assembled at KSC and made its first unloaded run.

The KSC transporters dwarf the self-propelled strip mining shovels from which they are adapted.

The only machines of their kind in the world, they are 131 feet long, 114 feet wide and each weighs about six million pounds. The chassis height is adjustable by hydraulic jacks from 20 to 26 feet.

They move on four double tracked trucks, each 10 feet high and 40 feet long. Each shoe of the crawler belt weighs about one ton. There are 57 shoes per belt and eight belts per transporter.

The transporter has a speed of one mile per hour when fully loaded and can move up to two miles per hour unloaded. They move over a crawlerway linking the VAB with the two launch pads which is equivalent in width to an eight-lane highway separated by a 50-foot median strip.

In operation, the transporter slips beneath the mobile launcher. Its 16 hydraulic jacks (four on each corner) lift the launcher and vehicle from pedestals. Then the transporter moves out of the VAB and carries the massive load to the launch pads where it is dropped down onto another set of pedestals, a chore it performed most recently on Monday when it rolled out the Apollo 13 space vehicle from the VAB to Pad A.

A leveling system is operated to keep the entire load in a level position during the move. During the move up the five per cent grade from crawlerway to launch pad, the transporter's leveling system operates to prevent the tip of the space vehicle from varying no more from the vertical than the diameter of a basketball.

Buchanan, born in Macon, Georgia, on December 23, 1922, was raised in Lynchburg, Virginia. He spent 1941-45 in the U.S. Army Air Corps and was graduated from the University of Virginia with a bachelor's degree in mechanical engineering in 1949.

He was employed in design work by the National Advisory Committee on Aeronautics at Langley Field, Virginia, from June, 1949, to February, 1956, and by the Army Ballistic Missile Agency in Huntsville, Alabama, from February, 1956, until July, 1960. Buchanan joined NASA at Huntsville, Alabama, in July 1960.

Buchanan was responsbile for the design and development of the Saturn 1/1B launch facilities on Cape Kennedy and the launch facilities of Launch Complex 39 at the Kennedy Space Center on adjacent Merritt Island.

Married to the former Miss Jean Peters of Lynchburg, Virginia, in 1945, the Buchanans and the three of their four children still at home live at 3125 Saunders Place, Titusville.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JAN 7 1970 2A.3 #75

news release

RELEASE NO: KSC-491-69
FOR RELEASE: December 26, 1969

KSC AFFORDS JOBS TRAINING FOR YOUTH

KENNEDY SPACE CENTER, Fla.--A total of 73 young people were afforded jobs and training opportunites during the 1969 Federal Summer Employment Program for youth at the Space Center, according to a year-end report compiled by KSC.

Fifty-four of them were newly hired while 19 who already were on the employment rolls had their working hours increased from 16 to 40 hours weekly.

Another program, the 1969 KSC Federal Summer Employment Program, provided jobs for 36 college and high school faculty members and college students during the vacation months.

The group was selected from 144 applicants from campuses throughout the United States.

The organization of the Summer Aid Youth Program was carried out in cooperation with the Florida State Employment Service and other groups such as Community Action Agency and the VISTA Citizens Corps.

Nathaniel Pilate, who coordinated the program, said the report on the project stated that "All assignments were considered productive and meaningful."

The report termed the 1969 program "the biggest yet in terms of meaningful training and work opportunities provided for disadvantaged youth."

The training the students received at KSC coupled with productive on-the-job experience gave these young people vital exposure to the world of work and the experience with which to qualify for entry into various occupational fields, the report added.

Sixty-four Summer Aids returned to school at the conclusion of the summer program, two entered the armed services, two found full time jobs with local employers, and efforts were being made to place two others.

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KSC news release

KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RELEASE NO: KSC-492-69
FOR RELEASE: December 17, 1969

APOLLO 12 ASTRONAUTS RETURN TO SPACEPORT

KENNEDY SPACE CENTER, Fla.,--The Apollo 12 crew came back to the Spaceport today to thank the KSC workers who launched them on their epochal moon-landing mission a month ago.

Astronauts Charles (Pete) Conrad, Richard F. Gordon and Alan L. Bean told 7,500 persons in the Vehicle Assembly Building that KSC is a second home to them.

In fact, said Conrad, "We didn't consider the flight over till we got back here."

Apollo 12 was launched from Complex 39 on November 14. It splashed down in the Pacific Ocean ten days later.

Alan Bean, who walked and worked on the lunar surface with Conrad in America's second successful landing, told the crowd, "My thanks to you for making us feel that this is our home."

His words echoed in the vast building where the Apollo 12 spacecraft and their Saturn V launch vehicles are assembled, mated, checked out before launch.

Bean looked out over the throng and said:

"Here with the people who put all this stuff together, this is really our home." He added that "it gives all of us real pleasure to come back."

This sentiment was shared by Gordon, who flew the Apollo 12 command module alone in lunar orbit for more than 30 hours while Conrad and Bean were on the moon.

Each crew member was presented with a pair of gifts by Dr. Kurt H. Debus, KSC Director.

He gave them enlarged color photos of the Apollo 12 launch and plaques containing a small rock from the bed of the crawlerway, the path each Apollo/Saturn V and its mobile launcher takes to the launch pad.

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The surface of the crawlerway is made of river rock.

In presenting the plaques, Dr. Debus referred to the stones as being part of "the first three miles to the moon."

The three astronauts spent the rest of the day at KSC showing films of their flight to NASA and contractor personnel.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JAN 7 1970

news release

2A.3
#75

RELEASE NO: KSC-494-69
FOR RELEASE: December 24, 1969

KSC'S UNMANNED LAUNCH OPERATIONS CONDUCTS 16 FIRINGS DURING 1969

KENNEDY SPACE CENTER, Fla.--Sixteen launches of automated spacecraft were conducted during 1969 by the Kennedy Space Center's (KSC) Unmanned Launch Operations Directorate (ULO), headed by Robert H. Gray.

Twelve firings were from NASA's facilities at Cape Kennedy with nine Delta and three Atlas/Centaur launch vehicles.

Four launches were from KSC's facilities at the Western Test Range at Lompoc, California, consisting of two Delta and two Thor/Agena rocket Flights.

There were two unsuccessful Delta Vehicle missions in 1969, both launched from Cape Kennedy. An Intelsat spacecraft was placed in an incorrect orbit and a Pioneer spacecraft was destroyed with the launch vehicle by a range safety officer.

Both incidents were thoroughly reviewed by NASA Boards and some changes in equipment, instrumentation and check-outs have been made. The recent launch of Delta-74 was flawless and put the payload into a perfect orbit.

First launched by NASA in May, 1960, the reliable and versatile Delta vehicle has been continually uprated by NASA. As the end of 1969, ULO has used Deltas on 74 missions and has successfully orbited the payloads 68 times.

A wide variety of satellites were flown on these 1969 missions, adding greatly to the useful applications of space in the fields of communications and meteorology, and in the extension of man's knowledge of the Earth, outer space, and the planets.

Five missions were international in nature, associating the United States with Canada; the United Kingdom and the International Telecommunications Satellite Consortium (INTELSAT), an organization with 68 participating nations.

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Four of the international missions were on a reimbursable basis. The launch of a communications satellite for the United Kingdom and three communications satellites for INTELSAT were conducted under agreements in which NASA is repaid for the cost of the launch vehicle and all associated launch services.

Launch operations for 1969 started at Cape Kennedy on January 22 when Delta-64 put an Orbiting Solar Observatory, OSO-5, into a 350-mile high circular Earth orbit. The Orbiting Solar Observatories are an important aspect in NASA's Solar Physics Program and carry scientific instruments designed to make direct observations of the Sun while flying above the distroting effects of the Earth's atmosphere.

Also in January, an International Satellite for Ionospheric Studies, ISIS-A, was launched on Delta-65 from the Western Test Range. This was a joint United States and Canadian mission to investigate our space environment through direct observations in the ionosphere, an atmospheric shell - starting about 50 miles above the Earth - produced by the actions of solar radiation on the molecules of gas in the atmosphere.

ULO successfully launched two communications satellites from Cape Kennedy in February and May for the international Telecommunications Satellite Consortium. During 1969, with satellites postioned over the Atlantic, Pacific and Indian Oceans, INTELSAT tied together the first world-wide commercial communications satellite system.

Two spectacular Atlas/Centaur launches in February and March sent Mariners 6 and 7 on trips covering 200 million miles. At the end of July and early in August, they flew within 2,000 miles of the planet Mars, which was about 60 million straight-line miles from Earth at the time of the encounters.

The Mariners are part of the continuing United States' program to see if life exists - or can exist - on Mars. Six experiments on these 1969 spacecraft sent back a total of 200 television pictures and much scientific data, giving us our closest and most extensive glimpse of the Martian surface and atmosphere to date.

The pictures showed Mars with a starkly desolate landscape, profusely cratered and remarkably similar to the rugged surface of the Moon. Preliminary evaluations of the pictures and scientific data show Mars as a bleak and cold hostile desert, without detectable amounts of nitrogen and oxygen, the main components of our Earth atmosphere.

In February, ULO used Delta 67 to send a weather observation satellite, ESSA-8, into a polar orbit from Cape Kennedy. The ESSA series of satellites are owned by the Environmental Science Services Administration of the U. S. Department of Commerce and the daily pictures of global could cover that they provide are used by the Weather Bureau and many foreign nations for preparing weather analyses and forecasts.

A Thor/Agena launch from the Western Test Range in April successfully placed two satellites in circular polar orbits. The primary payload was a NASA weather observatory, Nimbus-3, and the "piggy-back" payload was a U. S. Army geodetic satellite.

The Nimbus-3 satel lite carried seven meteorological experiments that scientists expect will ultimately lead to accurate, long-range weather forecasting - one of the basic objectives of the United States' meteorological satellite program.

Accurate ten-day weather forecasting will be of enormous value to agriculture, construction, lumbering, aviation, the maritime services, and many other industries. The National Academy of Sciences, in its 1967 study of spacecraft applications, estimated that for agriculture and the construction industry alone the value of the long-range knowledge of the weather would be worth $800 million a year.

Another Thor/Agena launch from the WTR in June successfully put NASA's sixth and last Orbiting Geophysical Observatory, OGO-6, into a low altitude polar orbit. OGO-6 carried 26 integrated geophysical experiments which scientists are using to study the Earth's space environment and Earth-Sun relationship as the Sun passes through its current period of maximum solar activity.

Delta-69 was launched from the WTR in June and placed into orbit the seventh spacecraft in the Interplanetary Monitoring Platform (IMP) series. Called Explorer-41 in its highly elliptical orbit, the spacecraft is being used to study solar plasma, magnetic fields and cosmic rays.

NASA's flying biological research laboratory, Biosatellite 3, carrying a highly instrumented 14-pound pigtail monkey, was launched from Cape Kennedy by Delta-70 on June 28. The original 15 to 30 day mission was terminated on the ninth day, due to reduced temperature in the spacecraft, and the capsule with the monkey was recovered near Hawaii.

The objective of this space science mission was to investigate the effects of prolonged weightlessness on body functions and mental processes.

Project officials have announced that much new biomedical data has been made available.

In August, another Orbiting Solar Observatory, OSO-6, was successfully launched from Cape Kennedy with the Delta-72 rocket. Since the existence of life and activity on Earth depends on solar energy, there is great interest in furthering our understanding on the Sun and its influence on the Earth's atmosphere, and the six successful OSO missions now flown have made significant contributions to these studies.

Also in August, a 160-ton Atlas/Centaur rocket combination boosted a 1,900 pound Applications Technology Satellite, ATS-5, on its way to a stationary equatorial orbit over the Pacific Ocean. The Applications Technology Satellites are experimental spacecraft, designed especially to advance technology in areas which may have application to future spacecraft, such as spacecraft control systems, communications, navigation and meteorology.

ULO's last scheduled mission for 1969 was the November 21 flawless launch of Delta-74 which placed a British Military communications satellite, Skynet-A, into a perfect transfer orbit. Skynet-A is the first of two communications satellites that will be placed in stationary equatorial orbits over the Indian Ocean in order to provide the United Kingdom with a military communications capability as part of the Initial Defense Communications Satellite Program.

Reviewing the 1969 accomplishments, ULO's Director Gray expressed his highest commendation for all Kennedy Space Center members of the launch operations team and the contractors' groups, universities, other NASA centers and many U. S. Government agencies whose combined efforts helped in making many major contributions to our nation's knowledge of space and position in space technology.

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KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

DEC 29 1969

RELEASE NO: KSC-497-69
FOR RELEASE: December 30, 1969

2A.3
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KSC SCHEDULES 12 UNMANNED LAUNCHES FOR 1970

KENNEDY SPACE CENTER, Fla.--The Kennedy Space Center has scheduled 12 launches of automated spacecraft during 1970 for its Unmanned Launch Operations Directorate (ULO). Several other missions might be scheduled if it is necessary to call up replacement spacecraft for maintaining the operational capabilities of the existing weather observation and communications satellite systems.

Of the 12 currently scheduled launches, nine missions will be flown on Delta space vehicles, two on Thor/Agena rockets, and one on a Centaur.

Eight of the launches will be from Cape Kennedy and four from KSC's facilities at the Western Test Range at Lompoc, California.

Seven Deltas and one Centaur will be launched from Cape Kennedy during 1970.

Launch operations start on January 7 when a Delta rocket will boost a communications satellite, Intelsat III-F, into orbit. The Intelsat III series of spacecraft belong to the International Telecommunications Satellite Consortium and are used in a world-wide commercial communications systems via satellites.

Two additional launches of Intelsat III series spacecraft are also scheduled for Delta vehicles during 1970. Intelsat III-G is slated for launch in February, and Intelsat III-H will be flown sometime after June.

KSC's launch operations team at the Cape will also use Deltas to launch two communications satellites for the North Atlantic Treaty Organization (NATO) and one Skynet communications satellite for the United Kingdom. NATO-A will be launched in March, NATO-B in April, and Skynet-B in June.

These satellites will be placed in stationary equatorial orbits at various locations around the globe and, in operation with the satellites

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already in orbit, will help to provide a military communications capability for the Initial Defense Communications Satellite Program.

The seventh Delta launch from the Cape in 1970 will take place after October and will carry an Interplanetary Monitoring Platform series spacecraft (IMP-I). These spacecraft, which are called Explorers in orbit, are part of NASA's physics and astronomy program and are used to study solar plasma, magnetic fields and cosmic rays.

The Centaur launch is scheduled for June with an Orbiting Astronomical Observatory (OAO-B). These two-ton observatories are the largest, heaviest, and most complex automated spacecraft yet developed by the United States and are designed to serve as accurately stabilized platforms from which telescopes give astronomers a look into the universe from above the obscuring effects of the Earth's atmosphere.

NASA's first successful Orbiting Astronomical Observatory (OAO-2) was launched from the Cape in December 1968 on Atlas/Centaur 16 and is now completing a year of observation of the stars and other objects as it circles the Earth in a 485-mile high orbit. Recent reports about the massive amounts of new data already provided through the instruments on OAO-2 state that astronomers are now contemplating the possibility that the universe may be several times larger than previously believed.

Two Deltas and two Thor/Agena rockets will be launched from KSC's facilities at the Western Test Range.

Launch operations there will start January 13 with a Delta launch of TIROS-M, a research and development meteorological spacecraft. TIROS-M carries brand new experiments and will serve as the prototype for an improved weather observation satellite, I-TOS, that will be put into service later in 1970.

A new configuration of the Delta will be used for this mission. Six solid propellant motors will be strapped on the Thor first stage of this two-stage rocket. Only three solid propellant motors have been used on any of the past Delta flights.

Each solid motor produces 52,000 pounds of thrust, with a burn time of about 37 seconds. Three of the motors will be ignited at liftoff and the remaining three will be fired when the first set burns out. Combined with the long tank Thor booster, which produces 172,000 pounds of thrust, these solids will bring the total thrust close to 330,000 pounds throughout the first minute of the flight.

Later in January, a Thor/Agena will be used to boost a Space Electric Rocket Test spacecraft (SERT-II) into a circular polar orbit. The SERT-II flight will test an ion thruster propulsion system - an experimental engine which may be used to power interplanetary spacecraft in future years.

Another Thor/Agena will be used in March to put an experimental weather satellite, Nimbus-C, into a circular polar orbit. The Nimbus observatory will carry meteorological experiments that NASA expects will shortly lead to accurate long-range weather forecasting.

An Improved Tiros Operational Satellite (I-TOS) will be launched from the WTR on a Delta vehicle in April. This will be the first in a new series of weather observation satellites that combine an Automatic Picture Transmission System - to send back realtime pictures of global cloud cover - with an Advanced Vidicon Camera System that also stores the cloud cover pictures for later transmission to specialized ground stations.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JAN 7 1970

news release

RELEASE NO: KSC-500-69
FOR RELEASE: December 24, 1969

2A.3
#75

SPACEPORT STUDIES FEASIBILITY OF CONVERTING MOBILE LAUNCHER INTO A SERVICE STRUCTURE

KENNEDY SPACE CENTER, Fla.--The feasibility of converting an Apollo/Saturn V mobile launcher into a backup service structure for launch preparations is under study for the Kennedy Space Center.

The engineering firm of Reynolds, Smith and Hills of Jacksonville, Florida, has been awarded a $61,400 contract by KSC to conduct the study.

The data will be used by the Spaceport's Design Engineering Direcotrate in determining the feasibility of converting a mobile launcher to perform the function now being accomplished by the mobile service structure.

The mobile launcher, which serves as a launch pad for the Apollo/Saturn V, is the largest portable structure in the world. It is 446 feet high and weighs more than 12 million pounds.

The mobile service structure is 402 feet tall and weighs nearly 10 million pounds. It, also, is portable. Moved into position at the launch pad, its three top work platforms are positioned to service the Apollo spacecraft. Two lower platforms serve the Saturn V rocket.

The structures are used to support launches in the National Aeronautics and Space Administration's program of manned lunar exploration.

There are now three mobile launchers at KSC and one mobile service structure.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

JAN 7 1970

2A.3
#75

RELEASE NO: KSC-501-69
FOR RELEASE: December 31, 1969

24,000 GUESTS VISIT KSC IN 1969

KENNEDY SPACE CENTER, Fla.--More than 24,000 guests representing 120 nations visited the Kennedy Space Center during 1969.

Among the thousands of visitors were such distinguished guests as President and Mrs. Richard M. Nixon, former President and Mrs. Lyndon B. Johnson, Emperor Haile Selassie of Ethiopia, King Baudoin and Queen Fabiola of Belgium, Vice President and Mrs. Spiro T. Agnew, former Vice President and Mrs. Hubert H. Humphrey, and his Highness the Aga Kahn and his wife.

Others included heads of states, foreign ambassadors, U.S. senators and representatives, key federal officials, state governors, supreme court justices, military chiefs, corporation executives, prominent entertainers, religious leaders, labor union officials and selected representatives of national organizations.

A majority of the guests visited KSC primarily to view the four manned Apollo launches during the year, but many also participated in escourted tours of the Spaceport and received detailed briefings on its facilities. An average of 100 tours per month were conducted during 1969.

Countries represented ranged in size from tiny Liechtenstein to such giants as Australia and Brazil. In addition to most of the major nations of the world, many newly-developing countries sent representatives to KSC during the year. Approximately 10 percent more guests visited the Spaceport during 1969 than during 1968.

After initial planning and coordination by NASA headquarters, all details related to visits are administered by the Protocol Branch of KSC's Public Affairs Office. R.E. Johnson is branch chief.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-502-69
FOR RELEASE: December 30, 1969

MAIL VOLUME AT RECORD HIGH FOR 1969

KENNEDY SPACE CENTER, Fla. -- Mail volume hit an all time high at the Kennedy Space Center during 1969. A record 29,236,305 pieces of mail were handled, an increase of 300 percent over 1968 and 77 times the volume of the first official tally in 1965.

Public interest in the Apollo program and launch documentation are credited for the rise by Forrest J. (Dusty) Rhodes, Chief of KSC's Mail and Reports Management Section.

Apollo 11, for instance, brought an increase of more than 1,000,000 mail items over the previous July period. Apollo 12, launched last November, resulted in an increase of 900,000 over the same month in 1968.

There were 1,730,000 requests for commemorative stamps and philatelic cancellations last year. Fan mail - public inquiries about launchings, astronauts and KSC operations - totaled 60,000.

Distribution of launch documentation material surged to 500,000. Added to the avalanche of mail were official correspondence, communiques, and news releases.

Behind the mail operation is a staff of 73 people made up of monitors, coordinators, secretaries, clerks, and 38 couriers who pick up and deliver mail four times a day. Also used are 17 mail trucks which last year logged an accumulative total of 276,000 miles.

The quantity of mail handled at KSC compares to that received at the Titusville Post Office, according to Rhodes. In function, however, the KSC Post Office is more allied to a Sectional Post Office such as that in Orlando which acts as a clearing house for mail dispatched to several different cities. In KSC's case, the term cities would apply to Launch Complex 39, the KSC Industrial Area, Cape Kennedy facilities and Patrick Air Force Base.

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About 500 letters are received each week with no address other than Kennedy Space Center. These are scanned before distribution by Rhodes and his staff. Of them, less than one percent are considered crank letters. Very few are returned because of illegibility.

There are always gripes about mail service, Rhodes admits. Even so, the KSC system is above average in efficiency. A stumbling block common to any mail system is carelessness in addressing correspondence. Inaccuracies in name or department account for four thousand letters a month which must undergo additional procedure for proper routing.

Will the 1969 record ever be topped? Rhodes said the chances are about even, depending upon future space objectives.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 29 1969

news release

2A.3
#75

RELEASE NO: KSC 505-69
FOR RELEASE: Immediate

December 24, 1969

KENNEDY SPACE CENTER EMPLOYEES ESTABLISH SAFETY RECORDS

KENNEDY SPACE CENTER, Fla. -- Employees at the Kennedy Space Center established enviable records for safety on the job during the past year, according to latest statistics.

During the period of December 1, 1968 to December 1, 1969, Federal employees at the Spaceport had only one lost time accident in over 6 million man-hours of exposure for an accident frequency rate of .16. The rate for the previous year was .4.

In the same reporting period, contractor employees at the Center had an accident frequency rate of 2.04 in well over 36 million man-hours of exposure. This compared favorably to the most recent rate for the aerospace industry of 2.39.

The KSC rates are considered significant because over two thirds of its workers are employed in jobs which have hazards rated from medium to high.

Spaceport safety officials attributed much of the success of the safety program at the Center to effective employee training.

"We have established a continuous training program which has stressed good safety practices on the job," stated George Kontra, Chief of KSC's Industrial Safety Branch.

"This program certainly paid dividends during a year of launch activity critically important to the success of the Apollo program."

Accident rates are based on the number of disabling accidents per 1 million man-hours worked. Only job-related accidents are included in the computations.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC 506-69
FOR RELEASE: Immediate

December 24, 1969

RECORD ATTENDANCE FOR SPACEPORT EDUCATIONAL PROGRAMS

KENNEDY SPACE CENTER, Fla. -- A record-breaking number of students took part in the NASA student lecture-tour program at the Kennedy Space Center this year.

Bill Nixon, chief of the Spaceport's Educational Programs Branch, reports that 37,000 elementary and high school students from Florida and Georgia participated in the program during 1969. This is 7,000 more than last year's total.

In addition, 3,600 students from 21 other states, Canada and Costa Rica came to the Center for the program.

On the adult education level, some 1,655 from 35 groups, including college students, also attended.

The student lecture-tour program includes a special 45-minute lecture and demonstration of space sciences, and a two-hour tour of the Kennedy Space Center and Cape Kennedy.

Teacher education programs are also conducted at the Space Center. These are designed to acquaint teachers with the NASA program, and to assist them in teaching basic space concepts at all classroom levels.

For 1969, there were 1,235 teachers attending the special programs, representing 16 colleges, universities and professional teachers' organizations. Of these, 825 were Florida teachers, and 410 came from Kansas, Pennsylvania, New York, Maryland and Tennessee.

The total number participating in the NASA educational program at the Space Center this year reached 43,580--approximately 10,000 more than in 1968.

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A type of traveling classroom, called the Spacemobile, meets the NASA educational needs off-Center. This program provides a systematic means of meeting the requests of schools and colleges for lectures and demonstrations describing the NASA space program.

During 1969, the Spacemobile visited 270 schools in Florida and Georgia, giving demonstrations to about 273,000 students.

In addition, the Spacemobile traveled to 31 Florida and Georgia colleges and universities to give special teacher workshops, similar to the workshops conducted at the Space Center. More than 8,700 Florida and Georgia teachers and student-teachers participated in workshops this year.

In all, the Spacemobile audience totaled over 322,000, including civic and professional groups. An additional estimated audience of 1,614,000 listened to special radio and TV programs in the Spacemobile series.

Spacemobile programs are available to educational and professional groups interested in learning more about the NASA space program.

Lecture demonstrations are also conducted at the Spaceport for the general public, held at the Visitor Information Center.

Throughout the year, some 159,000 people attended the lectures, topping last year's total by about 70,000. Heaviest attendance was during July and December.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 29 1969 2A-3 #75

news release

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FOR RELEASE: December 24, 1969

KSC EMPLOYEES PROVIDE COMMUNITY SERVICES, BACK U. S. WITH BONDS

KENNEDY SPACE CENTER, Fla.--In addition to launching men to the moon and orbiting highly sophisticated satellites, personnel at the Kennedy Space Center (KSC) take an active role in community services and back the Government by buying U. S. Savings Bonds.

The Director of KSC, Dr. Kurt H. Debus, served as Chairman of the U. S. Savings Bond Campaign in Brevard County.

Just before Christmas, Dr. Debus was selected to receive a special savings bonds award flag in behalf of KSC employees and all the business organizations and their employees who helped achieve more than 155 per cent of the 1969 county quota for new subscribers.

In keeping with the holiday spirit, KSC employees joined the Salvation Army's Christmastide program, contributing $2,768 and five truckloads of toys, food and clothing. The money and provisions is being used to brighten the holidays of families and children less fortunate than themselves.

This program, first started in 1962, has been made successful through the years by employees contributing in money, toys, food and clothing what they would normally spend on exchanging greeting cards. The NASA Exchange Council monitors the program at KSC.

On December 22 P. A. Fagnant Chief of the Center Administrative Services Office in Installation Support, NASA, received a call saying that approximately 150 people had been standing in line two and one-half hours in the cold and wind without coffee or anything to eat waiting to be certified to receive food under the Federal Food Commodities Program.

Fagnant contacted Vernon Farr, Service Manager for ARA food services at KSC, who immediately dispatched a vehicle with 15 gallons of free hot coffee and 200 pieces of assorted pastries. The vehicle remained there for two and one half hours, until all the products had been consumed.

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During the year, Civil Service employees at KSC exceeded the Combined Federal Campaign goal of $60,000 by $7,201. The average gift per employee was $26.50.

Of the 20 NASA organizations in the campaign, 14 had 100 per cent employee participation, three had 99 per cent, one 98 per cent, one 96 per cent and one 61 per cent.

The KSC campaign is staged annually on behalf of the United Fund, United Health Agencies and International Service Agencies.

U. S. Air Force Colonel Walter C. Vitunac, Chairman of the 1970 Brevard County Combined Federal Campaign, said the NASA-KSC "performance was superb and in keeping with the tradition of excellence which we all have come to expect of NASA."

In support of the campaign, Dr. Debus said he learned from touring the Mississippi Gulf Coast in the wake of hurricane Camille the lessons that could be applied should a similar fury ever strike Brevard County.

To supplement the organizational aid to Camille's victims, KSC personnel pitched in with three truckloads of food and clothing. This shipment was followed by a supply of about 3,000 cubic centimeters of typhoid vaccine.

Also, two checks totaling $1,259.46 was air mailed to the area relief chairman in Mississippi to aid the storm victims.

In the savings bond drive, Dr. Debus served as county chairman for the seventh year, and for each of these years he has been assisted by John Donovan, Public Affairs.

Michael J. Mainguth, Florida Director, U. S. Treasury Department, said only four other counties in the state won the special flag in the 1969 drive. They were Orange, Pinellas, Hillsborough and Duval.

For KSC, this bond drive marked the third consecutive year that more than 90 per cent Civil Service employee participation had been achieved.

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KSC
KENNEDY SPACE CENTER, FLORIDA 32899
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DEC 31 1969

news release

2A3
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RELEASE NO: KSC-508-69
FOR RELEASE: December 31, 1969

KSC MANAGEMENT CHANGES FOLLOW LUNAR LANDING

KENNEDY SPACE CENTER, Fla.,--A number of top management changes took place at the nation's Spaceport following the successful manned lunar landing by the Apollo 11 crew last July.

In the wake of the realization of the Project Apollo goal of a manned lunar landing within this decade, Rocco A. Petrone, Director of Launch Operations at KSC, was appointed Director of the Apollo Program at NASA Headquarters, succeeding Lt. Gen. Samuel C. Phillips, USAF, effective September 1.

Walter J. Kapryan, formerly Deputy Director of Launch Operations, was promoted to the slot vacated by Petrone effective September 1 and directed the launch of the Apollo 12 mission which achieved a second manned lunar landing in November.

Rear Admiral Roderick O. Middleton, USN, left his position as KSC Apollo Program Manager in mid-September to resume sea duty with the Navy and was succeeded by his deputy, Edward H. Mathews.

Albert F. Siepert, Deputy Director of KSC since 1963, left the NASA center here in early December to become a Program Associate at the University of Michigan's Institute for Social Research.

Siepert's prime responsibility at KSC involved the development of organizational and management structures as the center grew from about 2,500 personnel to its peak of more than 25,000 in 1968. No successor to Siepert has yet been named.

On October 3, Peter A. Minderman, was selected by Dr. Kurt H. Debus, KSC Director, to become Deputy Director of Technical Support. Raymond Clark is Technical Support Director. While the deputy position was created some time ago, Minderman is the first occupant of the slot.

Elevation in military rank came to Thomas W. Morgan, Manager of the Apollo Applications Program Office at KSC. Morgan traded in his eagles as an Air Force colonel for the star of a brigadier general effective August 1.

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The stars were placed on General Morgan's shoulders by Dr. Debus in ceremonies at the Headquarters Building attended by top KSC officials.

As AAP Manager, General Morgan is responsible for plans to meet KSC's AAP responsibilities.

The management changes came after the Apollo 11 landing marked KSC's transition from the research and development phase to an operational Spaceport.

In a statement on August 22, Dr. Debus commented on Petrones' appointment to the top Apollo job:

"I know that the entire Center organization shares my pride in the selection of our Launch Director to this key position in the national manned space flight program.

"Many of you have worked closely with Dr. Petrone since he joined the team in 1960 and have come to respect his outstanding abilities...He leaves the center at a time when Apollo has reached full maturity and the joint efforts of thousands of people attained the anticipated climax with the Apollo 11.

"...Fortunately, we have another outstanding manager whom I have selected to succeed Dr. Petrone as Director of Launch Operations. Walter J. Kapryan, who has served as his Deputy with great distinction, has accepted the position of Launch Director.

"Mr. Kapryan has been with NASA for 10 years and occupied key positions during both the Mercury and Gemini programs before taking up his important duty in Apollo. He compiled a brilliant record throughout the manned space flight programs and is uniquely qualified to lead the Government-industry launch organization."

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