

RELEASE NO: KSC-8-67
FOR RELEASE: Immediate

January 6, 1967.

**EXPERIENCED TEAM TO LAUNCH
APOLLO ASTRONAUTS**

KENNEDY SPACE CENTER, Fla. - - Apollo astronauts Virgil Grissom, Edward White and Roger Chaffee will be sent into Earth orbit early next year by the reliable uprated Apollo/Saturn I.

Since the first launch of a Saturn - - on October 27, 1961 - - the rocket has recorded an unprecedented series of 13 successful flights.

Not only has the launch vehicle proven dependable, but it is also the largest and more powerful yet used by NASA. It generates 1.6 million pounds of thrust at liftoff and can place nearly 40,000 pounds into Earth orbit.

Experience has been a key factor in Saturn's success story. Many Kennedy Space Center launch team personnel have worked together on more than 100 rocket flights, dating back to the early days of the Redstone and Jupiter programs. The first Redstone was launched from Cape Canaveral August 20, 1953.

- more -

It was this original group of rocketry veterans who successfully launched America into the manned flight program in 1961 with the Mercury Redstone sub-orbital shots of Alan Shepard and Virgil Grissom.

The core of this team - - members of the original Missile Firing Laboratory (MFL) of the Army Ballistic Missile Agency - - today hold key supervisory and management positions with NASA's Kennedy Space Center in the Saturn project. Chief of the MFL was Dr. Kurt H. Debus, present Director of the Kennedy Space Center.

Over the years, as the launch vehicles and spacecraft have grown in size and complexity, the team has been greatly expanded. For the AS/204 flight, hundreds of NASA and contractor employees will work together.

Most members of the original Debus launch crew are today with NASA's Kennedy Space Center. Contractors include Chrysler, first stage; Douglas, second stage; IBM, instrument unit; and North American and Grumman, Apollo spacecraft and lunar module.

Many other contractors are involved in mission support areas, such as Bendix, launch operations; Federal Electric, instrumentation; RCA, communications, and Pan American, range support.

"The excellent teamwork that has served so well in previous missions is fundamental to continued progress in Apollo," says Rocco Petrone, KSC's Director of Launch Operations.

"Not only do we expect this knowledge and dedication to preserve the record of our Saturn I's, but it also should provide one of the key elements as we move into launches of the Apollo/Saturn V next year," Petrone added.

Dr. Hans Gruene, Center Director for Launch Vehicle Operations, also credits experience as one of the key factors in the Saturn success story.

"Our people have had to broaden rather than specialize, and you might say we use experience to eliminate problems before they develop," Dr. Gruene said.

Over the years there have been many problems exposed in test flights which had to be solved, first on Redstone, then on Jupiter and Juno, and now on Saturn. That they have been solved is reflected in the launch record.

RELEASE NO: KSC-16-67

FOR RELEASE: Immediate

January 11, 1967

DR. DEBUS ADDRESSES

AIR FORCE WIVES CLUB

KENNEDY SPACE CENTER, Fla. - - Kennedy Space Center Director Dr. Kurt H. Debus delighted a packed house of Air Force Wives Club members Tuesday afternoon with a talk about the early days of Cape Canaveral. He spoke at the Patrick AFB Officers Club.

"Dr. Hans Gruene (now KSC Director of Launch Vehicle Operations) and I drove down here from Huntsville, Alabama, for the first time in 1952," Dr. Debus said. "We were to look over the launch site for the initial Redstone missile flight.

"At Cocoa we drove east over a dreadful wooden bridge and came out the causeway to nothing. There were no houses. Cocoa Beach consisted principally of a traffic light. At Patrick there were only a few temporary buildings."

Dr. Debus said he and Dr. Gruene then drove north to the Cape and found the lighthouse, an old rickety fishing pier, and a launch pad under construction.

- more -

"When the first Redstone arrived, our launch team came in like a circus troop. We shipped the missile to Melbourne by railroad. There were about 30 members of the team. Instrumentation was housed in trailers and at first we had no service structure," Dr. Debus remembered. "We bought an old oil derrick and converted it, and this was being put up at the same time we were readying the Redstone. I think the derrick cost about \$360,000. Today we would pay that much just for the design of a service structure."

The team shared quarters at the Cape with others, working on the Snark, and when they revved up the Snark's engines, no one could hear anything. The roof leaked and after every rain desks and other equipment were soaked. And, the Center Director emphasized, there were plenty of rattlesnakes and a tremendous amount of mosquitoes.

"We started here with 30 members of the launch team. Today we have nearly 22,000 workers at the Kennedy Space Center, including Civil Service, stage and support contractor employees."

Following this presentation, Dr. Debus answered a list of questions posed by the Air Force wives. He was first asked to what extent Robert Goddard's writings and work influenced the development of the German V-2 rocket.

Dr. Debus explained that V-2 development was done separately to Goddard's work and was thus not influenced by it. However, he added that it was later learned Goddard had employed many of the same principles in his rocket designs years before the V-2.

He then told the ladies it was not feasible at the present time to recover heavy space boosters for re-use, but we could develop this capability in the future if it did prove to be economical.

Dr. Debus next outlined the basic differences between the Gemini and Apollo spacecraft. In answer to a question about passenger travel to the moon, he answered, "it is conceivable, but would depend on the demand for such requests. Should someone want to go now," he said, "it would cost them a cool \$200 million for the trip, but of course that is an impossibility for at least the near future."

He told the wives that the Cape and Space Center will play an important role in the nation's space programs for some time to come, and he foresees no diminishing of that role in the immediate future.

As to the next step in space after the Moon, Dr. Debus said this: "We will use what we have developed. We can expect lunar exploration by expeditions, and perhaps lunar camps.

"Also, there will be many applied uses from satellites in Earth orbit. We may someday be able to manage the weather and to create new resources through space developments .

"Later, there will come unmanned visits to the near planets, and if this country chooses, perhaps there will be manned flights to the planets sometime in the 1980s."

Concerning NASA relations to oceanography, the Center Director pointed out that a spacecraft is essentially a closed system. Oceanographic interests would have need for such a closed system in their work under the sea, and many concepts along these related lines were currently under study.

The question was raised about a space race with Russia. "We are competing in the development of technology," Dr. Debus said. "Other countries who did not initially go into space exploration are now seeing the overall values of it, including international prestige, and more and more of them are also getting into it."

He told the club members a person with average physical abilities could withstand space flight, and he said NASA had no restrictions on women becoming astronauts. He then described the rigorous qualifications involved, and said no woman applicant had yet measured up to them.

- 5 -

At the close of the talk, Dr. Debus was presented with a pair of gold cuff links by Mrs. Vincent G. Huston, wife of the Air Force Eastern Test Range Commander, and he was asked if he would like to personally go on one of the space flight missions.

"Yes I would," he answered.

- end -

KSCKENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**news release**

RELEASE NO: KSC-22-67

FOR RELEASE: January 16, 1967

AUTOMATION HAS BIG ROLE
IN CHECKOUT OF A/S 204

KENNEDY SPACE CENTER, Fla.---As America's space vehicles grow in size, power and complexity, designers and test engineers at the Kennedy Space Center have had to come up with new equipment and techniques to checkout the thousands of systems, subsystems and parts of these new vehicles. Increasingly they have turned to automation.

A case in point is the upcoming Apollo/Saturn 204 mission which will employ NASA's most powerful and reliable launch vehicle to date, an updated version of the Saturn I.

On this first manned mission in the Apollo program, automation has been used heavily to test and checkout the vastly complex launch vehicle.

According to Paul C. Donnelly, KSC Launch Operations Manager, "Automation is probably the one basic difference in checking out the Saturn as compared with the Gemini launch vehicle. We are not fully automated and never expect to be since some mechanical checkout operations will always have to be done manually. However, with each succeeding vehicle in the program, the percentage of automation will be increased."

In Donnelly's opinion the time saving factor is one big advantage in using automated equipment. "For example, in checking out the emergency detection system on the integrated vehicle, we now spend 40 minutes on a job that once took 14 hours."

---more---

Measurements are taken electronically of pressures, temperatures, voltages, and on-off conditions at test points in the various launch vehicle systems. These signals are sent to a computer beneath the launch pad. A second computer in the blockhouse tells the first one what tests to run, and displays the test results on six screens for evaluation by the engineers.

If the manual test techniques used on the old Mercury capsule were used on the Apollo spacecraft, testing and checkout would seem almost endless. Mercury, for instance, required the test of only 88 system parameters. The Apollo spacecraft on this mission will involve checking out about 1,500 parameters.

"What we have done," Donnelly reported, "is introduce automation in the form of Automatic Checkout Equipment for spacecraft (ACE), which can sample test data at over 50,000 words per second. ACE has provided us with instantaneous, accurate and reliable methods, both automatic and semiautomatic, for testing the Apollo."

The ACE systems are located in the Manned Spacecraft Operations Building (MSOB) at the Kennedy Space Center. Their output can be viewed five miles away in the blockhouse and at remote test sites, as well as by the engineers in the ACE control room at the MSOB.

While the earlier programs clearly indicated that manual subsystem testing would not fill the bill for Apollo, it was decided against turning to fully automatic equipment right away. As a result ACE was designed to provide semiautomatic testing with operators performing initiating and monitoring functions.

In a very short time, perhaps within a few years, the ACE system could be operating in the fully automatic mode, requiring human guidance only on the occasion of unforeseen problems. "When that time comes," Donnelly said, "ACE will be able to checkout all spacecraft systems, barring problems, within one second compared with the current two minutes."

Automation and the space program have both come a long way in a short time, but KSC engineers and technicians are the first to agree that without each other the advancement would not have been so swift or so complete.

###

2A.2, #38



news release

RELEASE NO: KSC-29-67
FOR RELEASE: Immediate

January 18, 1967

KSC TRIO "ECONOMY CHAMPS" OF GOVERNMENT

KENNEDY SPACE CENTER, Fla. -- Three Kennedy Space Center employees have been chosen "Economy Champions of the Month" in a Government-wide contest for a suggestion they submitted that will save taxpayers more than \$69,000 this year alone.

The three are Don Peck and Orville Wahtera of Support Operations and Allen Niles of Unmanned Launch Operations.

Jointly, they suggested that the frequency of cryogenic storage tank inspections at KSC be changed from one to five year intervals.

Their idea will save the Government an estimated \$69,036 this year. Intangible benefits include fewer delays and interruptions of launch schedules due to tank inspections, many of which take eight to ten days each.

Niles, Peck and Wahtera received a \$1,000 cash award for their suggestion. They were honored at the recent KSC annual awards ceremony.

-more-

Following this, KSC Incentive Awards Officer Bill Martin submitted their names and idea in a Government-wide "Economy Champions" program, coordinated by the Civil Service Commission.

The entry won for the month of January. A large poster describing the savings is now on display in the Civil Service Commission's lobby in Washington.

-end-

RELEASE NO: KSC-28-67
FOR RELEASE: Immediate

January 18, 1967

GREENGLASS HEADS APOLLO PROGRAM CONTROL OFFICE

KENNEDY SPACE CENTER, Fla. -- As chief of the Program Control Office for Project Apollo, Bert Greenglass holds one of the more critical jobs at the Kennedy Space Center.

The spending of millions of dollars for the Apollo program hinges on recommendations and decisions made by this office.

This is only a part of the job for Greenglass. It also includes designing and monitoring the systems--for management, utilization of resources, control of logistics--which make Project Apollo tick at KSC.

"Communication" is an important word for this young industrial engineer, a veteran of the space program at 34. "It is our job," he says, "to seek out the methods that permit 20,000 people to communicate effectively with each other. The better we communicate, the more rapid our progress in the Apollo program."

-more-

One tool for communication designed by the Greenglass staff is a giant status board in firing room four at the Launch Control Center. It visually displays Apollo milestones, and identifies requirements and timetables for the future. It is the key to more than 60,000 items of information which spell out the status of Apollo.

This board and others at strategic locations throughout the Space Center are updated daily by the Program Control Office.

Will a Saturn stage arrive on time, as scheduled? Why not! The man with 60,000 answers can also ask penetrating questions. Pinpointing potential problem areas is all part of the day's work for Greenglass.

He may begin by reviewing the budget with his boss, Apollo Program Manager John Shinkle, or by holding a strategy session with the head of a KSC directorate. A typical project may mean devising a new logistics control system, eliminating duplication in reports, or custom-fitting a management technique to the special needs of the Spaceport.

The Program Control Office "tracks" the elements which are the core of any management system--time, material, manpower and money.

Using computers , engineering and analytical techniques "and a lot of common sense," Greenglass and his staff "dissect" the Apollo program. They put the pieces back together in reports and recommendations which "show where we have been , where we must go , our strong points , our weak points ."

"Knowing these things we move ahead faster," he says .

The Empire State native began his career in rocketry after graduating from New York University in 1955 . He was a member of the Army Ballistic Missile Agency , Redstone Arsenal , from 1956 to 1958 . Greenglass stayed on as a civilian at Redstone until 1961 , when he transferred to the Cape area to participate in the building of KSC .

"Watching the concept of the Center become reality has to be the most satisfying part of working here ."

In his off-duty time , Greenglass likes to "work at home and help out the kids ." He , his wife , Anne , and their three children , live at 220 Micanopy Court in Indian Harbor Beach .

RELEASE NO: KSC-27-67
FOR RELEASE: Immediate

January 18, 1967

SPACEPORT DUCK HUNTERS HAVE GOOD SEASON

KENNEDY SPACE CENTER, Fla. -- Nearly twice as many ducks and coots were harvested by hunters on the Spaceport during the season just completed as were bagged last year.

The stillness of the Merritt Island Wildlife Refuge was broken by more than 17,000 shotgun blasts during the 30-day hunting season that ended January 7.

Final count showed six misses for every bird downed. Nineteen different species were included in the 2,063 ducks bagged. The 1,187 hunters averaged just over two birds each. The 736 hunters last year averaged only 1.7 birds each. The 324 coots bagged this year were more than double last year's harvest of 145.

Curtis Wilson, refuge manager, says most of the hunters were from Brevard and Orange counties, with Eau Gallie addresses the most numerous. The refuge occupies some 39,000 acres of land and water at the Kennedy Space Center with duck hunters assigned to 25 blinds along the western shore of Merritt Island.

-more-

Duck hunting is annually allowed on the refuge in line with the Department of the Interior's Bureau of Sport Fisheries and Wildlife's program to develop the recreational potential of refuges where such use is compatible with the management objectives of the area .

The program also furthers KSC's policy of affording controlled public access without interference with operations .

-end-

RELEASE NO: KSC-23-67

FOR RELEASE: January 20, 1967

January 20, 1967

PAD 34 BLOCKHOUSE THROBS
AS A/S 204 LAUNCH NEARS

KENNEDY SPACE CENTER, Fla. -- What is it like in the blockhouse at Complex 34 moments before NASA launches the first manned Apollo spacecraft?

It is seven minutes before launch. The blockhouse throbs with disciplined excitement and tension.

On the pad, the three astronauts are sealed into their craft perched on the nose of the Uprated Saturn I vehicle, awaiting the surge of 1.6 million pounds of thrust to send them skyward.

In the igloo-shaped blockhouse, quiet, confident voices blend with the low hum of space age hardware. Using banks of computers and electronic gear lining the circular firing room, the launch team tests the pulse of the Apollo/Saturn 204 space vehicle.

Temperatures, pressures, fuel levels--hundreds of measurements must be sampled each second. The computers whir. A green countdown clock winks away the seconds.

Test conductors monitor the count. These are the men who direct the check out of the launch vehicle and spacecraft. Concurrently, the countdown is followed by the supervisor of range operations at Cape Kennedy and

---more---

KSC-23-67
January 20, 1967

-2-

mission control at NASA's Manned Spacecraft Center in Houston.

Test supervisor George Page checks with the spacecraft test conductor and other key supervisors. Their reports are positive. "Spacecraft--go... Mission control--go...Range--go..." And from launch director Rocco Petrone: "Go."

Time: T-4 1/2 minutes. George Page looks up from his console. "You are cleared to launch," he says.

This is the signal that launch vehicle test conductor Norm Carlson has been waiting for. His crew initiates the automatic sequence that ends with ignition and liftoff.

An air of expectation grips the blockhouse. Critical measurements continue to pour into flashing consoles. All are positive.

Time: 2 minutes, 43 seconds before launch. The firing panel operator presses the automatic sequence button. The final seconds of the countdown flash by.

T-3 seconds. Ignition!

The booster stage roars to life and strains at the hold-down arms of the launch umbilical tower. At T-0 seconds, the S-IB stage has developed liftoff thrust. The hold-down arms release. The space vehicle begins its fiery arc toward the clouds.

The flight of AS-204 has begun.

###

RELEASE NO: KSC-38-67
FOR RELEASE: January 20, 1967

January 20, 1967

5,416 STUDENTS ATTEND
SPACEPORT SCIENCE LECTURES

KENNEDY SPACE CENTER, Fla.---The science lecture-demonstration series established last September at Kennedy Space Center to inform students, teachers and the public on Space Age developments, has attracted 5,416 students through last January 12. They represent 59 schools in Florida and Georgia and from as far away as Missouri and Puerto Rico.

Spaceport officials said that as of January 12 they had commitments for visits from another 3,544 students from 35 schools for the rest of January, February, March and April with more coming in almost every day.

The lecture-demonstration program is conducted by the Space Center's Education Office. It is the only program of its kind offered by any National Aeronautics and Space Administration field center. It assists schools in the task of integrating some space technology into curriculums at all levels through college.

###

RELEASE NO: KSC-37-67
FOR RELEASE: Immediate

January 23, 1967

EXPLORER I NINTH
ANNIVERSARY APPROACHING

KENNEDY SPACE CENTER, Fla. -- Kennedy Space Center and contractor employees are today readying the first Apollo/Saturn V lunar rocket for flight later this year. It will have seven and a half million pounds of thrust.

Nine years ago a smaller group of rocketry veterans -- headed by KSC Director Dr. Kurt H. Debus -- were preparing for another historic launch: America's first satellite, Explorer I, atop a Jupiter C vehicle which had a thrust of only 75,000 pounds.

January 31 will be the ninth anniversary of Explorer I's launching, and the tiny satellite is still orbiting Earth. It is expected to stay up for at least another year and probably until sometime in 1969. By then American astronauts may have successfully landed on the Moon and returned to Earth.

- more -

Though it had only 1/100th the power of the Saturn V, the Jupiter C. vehicle that lofted that first satellite was heard around the world.

It blazed an American space trail for the hundreds of spacecraft -- manned and unmanned -- that have followed it into orbit.

Many of the basic launch concepts used then have been employed, with refinements, down through the years on a number of vehicles, including the highly successful Saturn I and updated Saturn I flights.

Dr. Debus cited team effort on the Explorer I mission. There were 52 men in the blockhouse that night, and most of them are in key launch operations positions at the Center today.

"The launch was a great satisfaction to everyone who worked on it," Dr. Debus said. "Our future in space was very uncertain then, and there was a need for the nation to realize we couldn't afford to ignore such a field with the impact on prestige and knowledge that could be gained. Explorer I helped open this door of realization.

"At that time things were complex, but today we have another level of complexity on our Saturn vehicles," Dr. Debus said. "Today's problems raise new challenges, but the problems we overcame nine years ago are contributing to the solutions in 1967."



2A.2, #39

news release

RELEASE NO: KSC-56-67
FOR RELEASE: Immediate

January 27, 1967

200,000TH VISITOR HONORED

KENNEDY SPACE CENTER, Fla. -- An Illinois resident was today honored as the 200,000th visitor to enjoy a guided tour of Kennedy Space Center.

George C. Guard, Postmaster of Equality, Illinois (pop.665), was presented a large color photograph of the nation's Spaceport. The photo was signed by Dr. Kurt H. Debus, Director of Kennedy Space Center.

The presentation was made by G. Merritt Preston, NASA's Deputy Director of Launch Operations. The ceremony took place in the Manned Spacecraft Operations building where spacecraft are prepared for launch.

Mr. and Mrs. Guard were given a special tour of the area which houses the huge altitude test chambers. In these chambers, which simulate altitudes of 250,000 feet, astronauts Virgil Grissom, Edward White and Roger Chaffee checked out the three-man Apollo spacecraft which will be used in the first mission, February 21.

- more -

The highlight of the Guard's two-hour tour was Launch Complex 39. This mammoth facility was built to accommodate the Apollo/Saturn V--the 364-foot-high space vehicle which will transport three American astronauts to and from the moon. The round trip lunar journey is scheduled to take place before 1970.

The Illinois couple also saw the huge Vehicle Assembly Building in which the Apollo/Saturn V rockets are assembled. The world's largest building, it stands 52 stories high and contains 129 million cubic feet of space.

On the tour, the Guards' bus passed Launch Complex 19, site for all of the two-man Gemini flights. The visitors also viewed launch sites for Surveyor, Lunar Orbiter, Tiros and other unmanned space missions.

The escorted bus tours originate at Gate 3 of Kennedy Space Center, just off U.S. Highway 1, south of Titusville.

RELEASE NO: KSC-56-67
FOR RELEASE: AM Feb. 2

February 1, 1967

KSC PROCUREMENT CHIEF TO RESIGN

KENNEDY SPACE CENTER, Fla. - - Michael E. Haworth, Jr., Chief of KSC's Procurement Office, will resign his position with the Center in mid-February after 12 years of Government service.

He will assume the duties of assistant to the president of Hayes International Corp., Birmingham, Ala.

Haworth joined the Center in September, 1961, as Chief of the Contracts Branch. He later served as Deputy Procurement Officer until 1964 when he assumed the job of Chief. Haworth is responsible for all aspects of organizing, directing and managing the negotiation and administration of KSC contracts.

A native of Pittsburgh, Pa., Haworth attended public schools in Birmingham. He continued his studies at the University of Alabama and Samford University (Birmingham) where he obtained a bachelor's degree in business administration following active duty as an Army Captain.

- more -

- 2 -

His federal procurement career began in 1952 as the Purchasing and Contracting Officer at Ft. McClellan, Ala. He joined the Army's Birmingham Ordnance District as a contract specialist in 1956.

Before joining NASA, he was Branch Chief in Birmingham District supporting Army Ballistic Missile Agency operations.

Haworth resides in Indialantic with his wife, Jean, and their children, David, 19; Michael, 16; and Jeanie, 13.

- end -

RELEASE NO: KSC-58-67
FOR RELEASE: February 4, 1967 AM

February 2, 1967

KSC AWARDS VISITOR INFORMATION CENTER CONTRACT

KENNEDY SPACE CENTER, Fla. - - A contract was awarded today in the amount of \$838,550 to Houdaille-Duval-Wright Construction Company, of Jacksonville, Fla., to prepare the site, install utilities and erect structures comprising the interim NASA Visitor Information Center on Merritt Island.

The facility is expected to open about July 1, 1967 and will accommodate the public visiting the Spaceport. It will consist of two structures connected by a covered walkway. The structures will make available 20,000 square feet of space for exhibits, space motion pictures, and related activities.

One will contain two auditoriums, each seating 250 persons, where films will be shown explanatory of the national space program. Two long exhibit halls will also be located in this building.

The other will contain a service area where visitors will purchase tickets for escorted bus tours, snack bar, souvenir and space literature store, exhibits, offices and a waiting room for tour patrons.

- more -

The Visitor Center will become the terminal for the tours which now begin at the main access gate near US Highway 1. Visitors will be permitted to drive into the Visitor Center, five miles east of Highway 1.

In addition to clearing the site, located on the south side of NASA Parkway, the contractor will excavate, fill to final grade, construct a parking lot for 800 autos, install outside utilities including a sewer treatment plant, and erect the structures.

Later, the Space Center will install air conditioning and heating systems, interior partitions, seats, projection and other equipment.

RELEASE NO: KSC-58-67

FOR RELEASE: PMs Mon., Feb 6

February 3, 1967

KSC'S DEPUTY DIRECTOR

OF DESIGN ENGINEERING TO RESIGN

KENNEDY SPACE CENTER, FLA. - - Colonel Aldo H. Bagnulo, U.S. Army (retired), is resigning his position as Deputy Director, Design Engineering, effective February 24, 1967.

Dr. Kurt H. Debus, Center Director, expressed his appreciation to Col. Bagnulo for remaining in his assignment through the reorganization of the Center which was carried out during 1966. Col. Bagnulo had earlier advised Dr. Debus of his plan to leave.

He will join the firm of Pope, Evans and Robbins, consulting engineers primarily in the construction field, as associate partner in charge of their Alexandria, Va. office. The firm maintains home offices in New York City and has branch offices throughout the world.

Grady F. Williams, presently electrical and electronics manager in the Design Engineering Directorate, will succeed Col. Bagnulo.

- more -

Col. Bagnulo joined the Center in August, 1963 while serving as Colonel, US Army Engineers, during the period of maximum construction activity on the NASA Spaceport. His first assignment was as Chief, Facilities Engineering, in charge of brick and mortar construction. Subsequently, he became Chief, Engineering and Development Division, when the complex ground support equipment responsibility was added. In 1966, electronics and electrical engineering was added in the present Directorate.

Col. Bagnulo retired from active military service in 1965.

A graduate of Massachusetts Institute of Technology in 1936, Col. Bagnulo filled increasingly responsible posts in the military engineering and construction field. During the 1940s, he supervised Army construction in Puerto Rico, the Virgin Islands, and British West Indies. As District Engineer, Eastern Ocean District, in the mid-1950s, he was responsible for base construction in Greenland, Iceland, the Azores, Bermuda, Newfoundland, Labrador and other parts of Canada.

From 1952 to 1954 he supervised flood control, water conservation and navigation projects as St. Paul District Engineer. During World War II, he commanded an engineer regiment in combat in France and Germany. Later his regiment served in Okinawa and Korea. He spent four years in the Office of Chief of Engineers, Washington, D.C., after the war. Before joining NASA he was Chief of Staff, US Army, Alaska.

He has bachelor and master's degrees in engineering from MIT. The Army awarded him the Legion of Merit with Oak Leaf Cluster.

Col. and Mrs. Bagnulo live in Satellite Beach with their sons, Michael, Robert, John and Joseph.

Williams has been associated with the United States missile and space program since 1950 when he joined General Electric Company, then prime contractor on the Hermes II missile. With GE, Williams participated in the last firings of the V-2's brought to this country for experimental purposes. He transferred to civil service in 1951 and shortly thereafter was selected by Dr. Debus as part of the Army's Experimental Missile Firing Branch. Coming to the Cape in 1953 as part of the Debus team, Williams was named Chief of the Measuring Section in connection with checkout and launch of the Army's Redstone missile.

In 1959, Williams was appointed Deputy Chief of Electronic, Measuring, and Tracking Branch under Karl Sendler. With the formation in 1963 of Launch Vehicle Operations, Williams was named Chief of Electronic Engineering and Instrumentation. In this position he was responsible for design of all instrumentation ground support equipment, including radio frequency, telemetry, and measuring systems on the Saturn program. He was also responsible for checkout, validation, and launch support of the launch vehicle instrumentation system. He held this position until being appointed electrical and electronics engineering manager of the Design Engineering Directorate.

- 4 -

Williams lives at 1213 Myrtle Lane in Cocoa with his wife, Mavis. They have one son, James, with the Air Force in Los Angeles.

Williams received his BS degree in Electrical Engineering from Auburn University in 1949 and is a member of Tau Beta Pi and Eta Kappa Nu honor fraternities.

- end -

RELEASE NO: KSC-59-67
FOR RELEASE: AM February 7, 1967

February 6, 1967

PRESTON NAMED KSC
DIRECTOR OF DESIGN ENGINEERING

KENNEDY SPACE CENTER, Fla. -- G. Merritt Preston, a career veteran of the NASA manned space flight program, has been designated Director of Design Engineering by Dr. Kurt H. Debus, Center Director.

Mr. Preston is the first incumbent in the post which was created during the Center's major reorganization last year. He will direct design of ground support equipment, structures and facilities for NASA launch operations and support elements. His responsibilities cover brick and mortar construction, electronics and electrical systems, and mechanical ground support equipment.

Until his selection for the Design Engineering directorate, he was Deputy Director, Launch Operations. He personally supervised all unmanned and manned launches of the highly successful Gemini program concluded in November, 1966 with the 10th manned mission.

- more -

He was born in Athens, Ohio in 1916 and attended Rensselaer Polytechnic Institute from which he received a bachelor of science degree in aeronautical engineering in 1939. He joined the National Advisory Committee for Aeronautics at Langley Research Center, Va. He worked for improvement of aircraft speed and safety and continued in this field when transferred to Lewis Flight Propulsion Center in Cleveland, Ohio in 1942. There he was named Chief of Flight Research Engineering in 1945.

Mr. Preston and his co-workers received the Flight Safety Foundation Award in 1954 and the Laura Tabor Barbour Award in 1956 for contributions to the solution of aircraft crash survival problems.

Following the establishment of the National Aeronautics and Space Administration in 1958, Mr. Preston was appointed Assistant Chief of Project Mercury Operations. In 1961 he became Manager of Cape Operations and Chief of Preflight Operations for the Manned Spacecraft Center at Cape Kennedy. In 1964 his organization was absorbed in the Kennedy Space Center.

Mr. Preston and his organization won other honors, receiving the NASA Group Achievement Award in 1962 for contributions to the success of Project Mercury. In 1963 the late President Kennedy presented him the Outstanding Leadership Medal for his work in the Mercury program.

He lives in Indian Harbour Beach with his wife, Grace; his daughter, Lelia and son, John.

Yesterday the Center announced that Grady Williams has been appointed to the position of Deputy Director of the Design Engineering Directorate, relieving Col. Aldo H. Bagnulo, U.S. Army (ret) who is leaving the Center for private industry.

Mr. Preston's organization includes 300 Civil Service personnel. In addition, the Dow Chemical Company provides supporting engineering services.

_ End -

RELEASE NO: KSC-61-67

FOR RELEASE: Immediate

February 8, 1967

CALIBRATION LABS DEMAND
MEASUREMENT ACCURACY

KENNEDY SPACE CENTER, Fla. - - The Kennedy Space Center's Calibration Operations Section deals in one product: measurement accuracy.

This 115-man group has the vital job of calibrating the test equipment and precision tools for ground support operations at the Spaceport. It is a job which reaches to the very heart of space flight, where precision and accuracy is a measure of success or failure.

"Our people take their work seriously," said Armand Bergeron, chief of the section. "One man using one faulty torque wrench, for example, can unknowingly endanger a mission. We verify the accuracy of ground support tools and equipment - - to make sure that this never happens."

The Calibration Section averages 1,800 jobs a week, calibrating everything from a wire crimper to a complex spectrum analyzer which monitors telemetry signals from an in-flight spacecraft or satellite.

- more -

"As the Apollo program matures, our work load picks up," Bergeron pointed out. "We expect to be doing 3,000 calibrations a week by the end of fiscal 1968."

The section operates three laboratories, located in the Central Instrumentation Facility, the Manned Space Operations Building, and the Vehicle Assembly Building.

Most engineers and technicians on the staff are employees of the Federal Electric Corporation. Much of the work is conducted under "clean room" conditions.

In the Central Instrumentation Facility lab, Bergeron pointed to a large gauge which measures the pressure of nitrogen gas used to pressurize Saturn rocket fuel. "It must be accurate and reliable up to 10,000 pounds per square inch," he said. "We see to it that it is!"

Craig Downey, Federal Electric's supervisor in the Manned Spacecraft Operations Building calibration lab, surveyed a spectrum analyzer which was in for a periodic check. The complex electronic instrument has many uses, he explained, "such as displaying the physical condition of orbiting astronauts." Before the analyzer is placed back in service, its accuracy will be verified by calibration engineers and technicians.

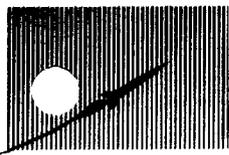
In another part of the Manned Spacecraft Operations Building lab, technicians were testing torque wrenches and wire crimpers. Connectors on hold-down arms -- they release a launch vehicle after ignition -- provide a good example of hardware which is torqued to assure reliability. Thousands of wire connections must be crimped in preparing for a launch.

"It is basic," Bergeron said, "that to do a job properly a man must have accurate tools and equipment. That's our job -- and we mean to do it right."

The location of the three labs puts them close to user personnel.

Each is equipped with racks of test equipment which are periodically verified for accuracy by the Reference Standards Section of the Calibrations Branch. All measurements made with calibration lab test equipment must be traceable to the National Bureau of Standards.

The section services more than 50,000 separate items of equipment. Bergeron believes this total will rise to 100,000 "in the next year or two." Computerized scheduling alerts users when it is time to have an item re-verified by calibration.



RELEASE NO: KSC-62-67

FOR RELEASE: Immediate

February 8, 1967

KSC MAIL VOLUME SOARS

KENNEDY SPACE CENTER, Fla. - - Volume of business in the Kennedy Space Center Mail and Reports Management Section is rocketing spaceward with the speed of the powerful launch vehicles that are flown here.

The section is now processing nearly one million pieces of intra-Center mail every month!

Last year alone, more than ten and a half million items were handled - - up four million from 1964.

Operated by 84 TWA employees, the section today consists of a central mailroom, 14 sub-mailrooms spread throughout the Spaceport, and a branch of the U.S. Post Office in the KSC Headquarters Building.

Hourly pick-up and delivery service is provided to all KSC offices, including ones at Patrick AFB, Cape Kennedy and NASA contractor sites in local communities. Twenty-one vehicles shuttle between these offices and the main mailroom.

- more -

Though a major portion of the Section's workload relates to the daily flow of intra-Center mail, it is also responsible for a number of other varied activities.

For example, it distributes a monthly average of 250,000 KSC Bulletins and other items centerwise.

The Central Classified Control Center maintains 4,500 classified documents, and the NASA Locator provides the input for all KSC telephone directories.

In addition, the Section operates the U.S. Post Office Branch in the Headquarters Building. During 1966, \$124,000 was received for stamps, money orders, CODs and other revenue, and 40,290 bags of incoming U.S. mail were handled. Bags of outgoing U.S. mail totaled 24,700 for the year.

"When you handle a million pieces of mail a month, incorrect or incomplete addresses pose a major problem," says Forrest Rhodes, Chief of KSC's Mail and Reports Management Section.

"Most of the time it's just carelessness on someone's part. People spend hours preparing a letter and only seconds addressing the envelope," he adds. "The problem usually becomes one of incomplete addresses, rather than wrong ones."

Rhodes further explained, "when this happens, the NASA Locator must check her files and add such things as current office symbols, building room number and location. This takes time and slows delivery."

Jim Moorehead, TWA Postal Services Supervisor, says, "people often move from one office to another without notifying the Locator. It is essential that our files are kept up-to-date, and we must be notified of every change of office or telephone number for all employees, NASA and contractor."

Both Rhodes and Moorehead stressed the use of ZIP Codes on all official mail. KSC forms that contain the Center's address now include the ZIP - - 32899. It is also recommended that ZIP Codes be used on personal mail.

They also asked that all mail to other major NASA Centers be put in unfranked envelopes since this mail is put into bulk mail bags and does not require a franked envelope.

"The day is coming when every piece of mail will have a ZIP Code", says Moorehead. "Eventually all envelopes will have a specified place where the ZIP will be printed or even stamped, allowing the mails to be electronically scanned for sorting and distribution.

- 4 -

"I personally think", he continued, "that soon all envelopes will be standardized size and shape and will be electronically processed and sorted right down to the mailman's route .

- end -

RELEASE NO: KSC-60-67
FOR RELEASE: Immediate

February 8, 1967

HISTORIAN KEEPS PACE
WITH KSC ACTIVITIES

KENNEDY SPACE CENTER, Fla. - - The Kennedy Space Center is not only making history but it is also documenting it in detail, according to Dr. Robert A. Lindemann, the Center's Chief of Historical and Library Services.

"This involves a variety of functions," said Lindemann, "including historical support to KSC management, preparing historical studies on the history of NASA operations at the Spaceport and Cape Kennedy and collecting and maintaining basic historical documents for a permanent archive and reference file.

"We also provide historical support to other NASA centers, NASA Headquarters and other Government agencies in connection with the overall NASA Historical Program."

- more -

Typical of the intra-Center services provided by the Historian's office is the preparation, publication and distribution of a chart listing major NASA/Eastern Test Range launches, which is prepared periodically and made available to KSC offices.

The office also maintains the archives, a collection of historical documents and other materials concerning the activities of KSC and its predecessor organizations.

This information serves as a central reference file of both unclassified and classified documents for Center personnel.

An example of the support provided by KSC to other Centers was the input supplied to the Manned Spacecraft Center for a history of the Mercury and Gemini Programs.

KSC also has the responsibility of participating in the preparation of an Apollo Program History, a multi-volume work covering all aspects of the Apollo Program, including Headquarters administration, development of the Apollo spacecraft and Saturn launch vehicles, launch facilities, and Apollo launch operations.

KSC will prepare the volumes on launch facilities and launch operations. William Putnam, Assistant NASA Historian for Manned Space Flight, will coordinate the series.

In addition, the Center Historian acts as a point of contact between Headquarters and other governmental historians, supplying appropriate photographic and written documents as required.

A large portion of the work here relates to writing the history of the Kennedy Space Center, says KSC's historian, Frank Jarrett.

"We have already published the Origins of the Launch Operations Center and have a comment edition of the history of KSC through December 1963. Locating the source material necessary to write these histories was quite difficult," said Jarrett.

He explained that any information describing the "how, when, where and why" of KSC activities, both past and present, is of particular interest to him.

This includes old organization charts, letters, minutes of meetings and other data that document the history of the Center and give insight into historically significant policies and decisions.

"We would certainly appreciate it if people would contact the Historian's office before destroying old documents," Lindemann and Jarrett both echoed.

"It would make our job much easier."

Current major projects for the office include the two volumes for the Apollo Program History, the Center's history from January 1964 to December 1966, and a volume to be entitled, The Origins of the John F. Kennedy Space Center, NASA, which will be a part of the NASA Center Historical Series.

What function does the NASA Historical Program serve?

As Lindemann described it: "The NASA Historical Program, of which KSC's program is a part, is under the direction of Dr. Eugene M. Emme, the NASA Historian.

"The purpose of the Program is to describe and document NASA's role in the National aerospace program, providing for future use basic documentation and records of NASA's programs.

"This includes the history of NASA management, organization, development, and accomplishments in the history of American science and technology in the Space Age.

"The program also insures the preservation of NASA records and their retention to promote access and retrieval for historical use , thereby encouraging historical research and analysis of all NASA-related activities , both within NASA and by non-governmental groups ."

As the space program continues on its way to the Moon and beyond , the KSC Historian will keep pace , documenting the Center's many contributions for the edification of future generations .

RELEASE NO: KSC-82-67
FOR RELEASE: Immediate

February 15, 1967

**ENGINEER'S TOUGHEST JOB?
KEEPING UP WITH CHANGES**

KENNEDY SPACE CENTER, Fla. - - Keeping up with the state-of-the-art in engineering, that is keeping up with rapid-paced progress in this ever-changing field, is one of the principal problems of engineers at the Kennedy Space Center.

In some instances it is not too difficult, for many phases of the aerospace engineering art are actually being advanced right here at the Spaceport.

Like doctors, however, engineers must stay abreast of all the latest developments, and in an area where the technology is advancing so fast, it is a never-ending job just to keep up.

Eight engineers at the Center were asked, "How do you keep up with engineering state-of-the art?" Here are their answers:

- more -

Joel Kent, industrial engineer, Data Management: "Our blossoming technology and the avalanche of information it produces tax the ability of the professional to separate the important reading from the unimportant. And, of course, keeping up with the state-of-the-art is an occupation which must be pursued after hours."

Harold Huber, Grumman Project Engineering: "Today's engineers must attend symposiums and read technical articles to pick out promising devices and techniques which appear most certain to find application in advanced systems."

Joe Nelson, Electrical-Electronics Branch, Support Systems Division: "It's impossible to keep up with all the advances. You would have to go back to school full time. However, an engineer, through night courses and technical societies, can keep abreast of most advances in his particular phase of engineering."

Jeanette Jones, Planning and Technical Support: "Today's engineers at KSC have little trouble keeping up with the state-of-the-art because in most instances they are establishing that very state!"

Ray Leshynski, Federal Electric: "In these rapidly changing technological times, an engineer today must continually study to keep up."

David Tharp, Design Engineering: "I don't have an answer to the question. Today's engineers have a hard time keeping up with the state-of-the-art, because the amount of knowledge of engineering is increasing greatly while the time available to keep up seems to grow shorter every day."

Don Price, Ampex field service engineer: "I benefit greatly from the Instrument Society of America. An enormous amount of technical knowledge can be obtained from such organizations. Brevard Junior College night courses have helped. Also, company-provided information on latest modification and ideas is good. I find myself reading tonight about tomorrow's problems."

Al Werden, Electrical Utilities Systems: "Engineers who cannot return to school either full-time or at night can keep up with the state-of-the-art through technical magazines and by attending short seminars."

RELEASE NO: KSC-83-67
FOR RELEASE: Immediate

February 15, 1967

**1,200 KSC ENGINEERS
TO CELEBRATE 'THEIR' WEEK**

KENNEDY SPACE CENTER, Fla. - - Regardless of the title - - it may be aerospace technologist or manager - - he is first and foremost an engineer, the strong right arm of the Spaceport team: Next week is his.

February 19-25 is National Engineers' Week. The occasion will be observed by thousands of NASA and contractor engineers employed at the Kennedy Space Center.

On February 24, an engineers appreciation banquet will be held at the Sheraton-Cape Colony Inn in Cocoa Beach. An "engineer of the year" will be honored at the banquet, sponsored by the Florida Engineering Society on behalf of the Canaveral Council of Technical Societies.

Some 1,200 engineers at KSC, about 45 percent of the NASA staff here, support the Nation's space program in a variety of fields. This force is bolstered by thousands of contractor engineers. Together, this talented force of men and women does everything from manage programs to the actual design and assembly of space hardware.

- more -

Spaceport engineers are found high in the steel framework of the Vehicle Assembly Building, in the blockhouses, the clean rooms - - just about everywhere. Their work involves present operations and future planning.

Hundreds of engineers, for example, are now preparing the first Apollo-Saturn V space vehicle for launch. This 364-foot-high giant, of the class that will someday carry American astronauts to the Moon, is scheduled for liftoff in the second quarter of this year.

These engineers are transforming yesterday's designs into tomorrow's operational hardware. It is hard, satisfying work.

In addition to launch operations, the KSC engineering colony acts in other vital capacities.

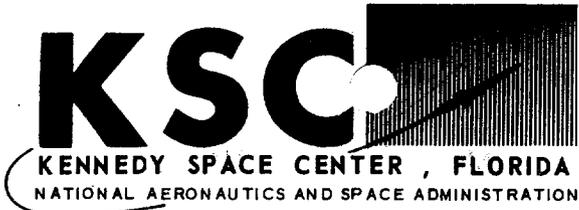
In instrumentation and program analysis, NASA and contractor specialists incorporate the latest developments of this rapidly progressing field into the space program.

Other engineers are directing the completion of structures and buildings at the Spaceport - - in scope, one of the largest construction jobs in the nation.

In program management, industrial and systems engineers pare costs and time to insure that KSC fulfills its mission in the most efficient manner possible.

Other Spaceport engineers are specialists in transporting launch vehicle stages, work on the engineering of space suits and biomedical sensors, or the improvement of aerospace propulsion systems.

Whatever their jobs, all engineers at the Kennedy Space Center apply their individual skills to the overall task of carrying forward the goals of the space program.



2A.2, #40

news release

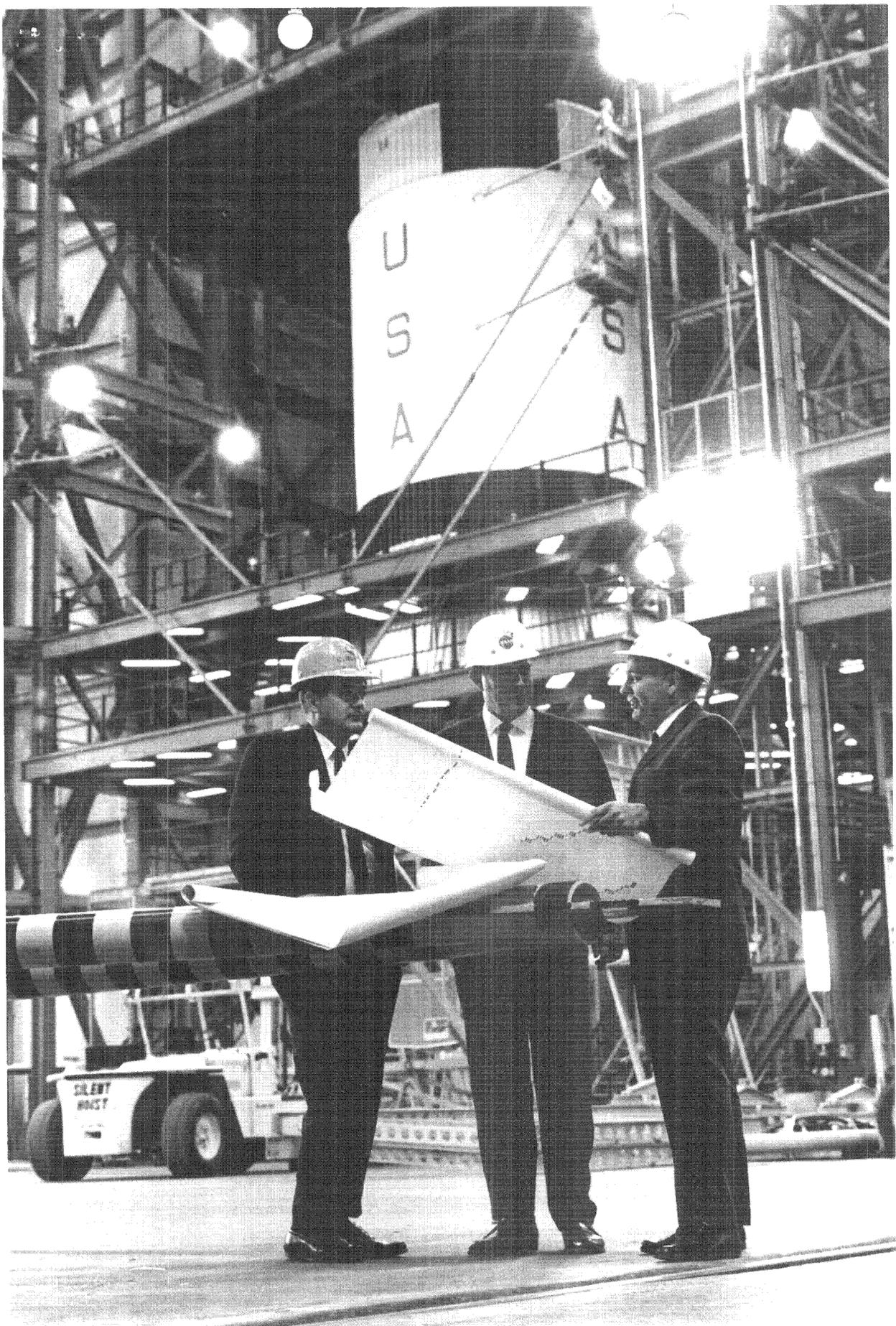
RELEASE NO:

FOR RELEASE:

February 15, 1967

Note to editors:

February 19-25 is National Engineers Week. Nearly half of all NASA employees at the Kennedy Space Center (1,200) are professional engineers. Thousands more work for contractors at the Spaceport. Enclosed is a group of features on various aspects of engineering work at the Center, including: profiles of engineers with interesting jobs; interviews related to various problems, opportunities and other points facing today's aerospace engineer; and articles on the many diversified fields of work covered at KSC.



JOHN F. KENNEDY SPACE CENTER, NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION, KENNEDY SPACE CENTER, FLORIDA 32899

PHOTO CREDIT--NASA OR NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

THIS PHOTOGRAPH IS RELEASED FOR NON-COMMERCIAL, NON-COPYRIGHTABLE
PUBLIC INFORMATION USE. WRITTEN PERMISSION MUST BE RECEIVED FROM
NASA IF THIS PHOTOGRAPH IS USED IN ADVERTISING, POSTERS, BOOKS, ETC.,
AND LAYOUT MUST BE SUBMITTED TO NASA FOR APPROVAL PRIOR TO RELEASE.

PHOTO NO. 105P-KSC-67P-78
FOR RELEASE. February 14, 1967

KENNEDY SPACE CENTER, FLA.---More than 1,200 NASA engineers and hundreds
of engineers employed by contractors at the Kennedy Space Center will
observe National Engineering Week which begins February 19. Three re-
presentative NASA engineers examine charts in the low bay of the Vehicle
Assembly Building. They are, from left to right: Bud Blevins, Cleve L
Loveland and Marc Harris.

TECHNICOLOR

RELEASE NO: KSC-86-67
FOR RELEASE: Immediate

February 15, 1967

EDUCATION JUST STARTING
FOR SPACEPORT ENGINEERS

KENNEDY SPACE CENTER -- The familiar out-of-school chant of "no more pencils, no more books" is not sung by the Kennedy Space Center's engineers attending local colleges and universities.

For them, receiving a college degree, in many instances, marked just the beginning of their educational pursuits.

Ken Jernigan of KSC's Systems Training and Employee Development Branch reports that about 90 engineers are currently enrolled in graduate schools earning advanced degrees in a wide range of subjects.

For example, those attending the Graduate Engineering Education System (GENESYS) have a choice of nine different engineering degrees.

The Graduate School of Florida Institute of Technology (FIT) awards degrees in mathematics, oceanography, operations research, physics and space technology.

- more -

Rollins College has a Master of Science program with majors in physics and engineering physics.

For engineers who are working in management areas, and need training in business administration, a Master of Science degree in Management is available from Florida State University.

If no local institution offers a needed specialized course, an employee may attend an out-of-state school.

Not all KSC engineers attend classes away from the Center. Many are participating in various systems training programs given at the Spaceport, and others periodically take courses and attend seminars usually held in the Training Auditorium.

The non-credit courses and seminars, such as a series of short courses given by GENESYS, draw many engineers for classes in mathematics, physics, computer logic, oceanography and other job-related subjects.

Says Jernigan, "We naturally do all we can to encourage people to advance their education, and KSC will pay tuition costs for undergraduate and graduate study when it is required or related to a Civil Servant's job."

- 3 -

This, combined with the many in-house training programs, offers almost unlimited educational opportunities for KSC's engineers.

- end -



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.2, #40
news release

RELEASE NO: KSC-85-67
FOR RELEASE: Immediate

February 15, 1967

'OPPORTUNITY GREAT'
SAYS KSC ENGINEER

KENNEDY SPACE CENTER, Fla. - - From the Marshall Islands in the South Pacific to the Kennedy Space Center on the Atlantic, James A. Praytor has plied the trade of aerospace engineer.

Praytor, who graduated from Auburn University, spent ten months in the Marshall Islands working on the Nike Zeus program during a six-year span with Radiation, Inc., before joining NASA and coming to KSC.

He found the Marshall Islands and his work there associated with the anti-ballistic missile system very interesting and exciting at times, but he likes his KSC billet best.

Praytor is now an aerospace technologist in Data Systems at the Central Instrumentation Facility. His responsibilities include not only selecting the most suitable computer equipment for recording pre- and post-launch data, but also maintaining and updating it.

- more -

Of KSC, he says, "Opportunity is greater. I have a chance to look at various types of computer equipment here and learn a lot about their operations."

At the Marshall Island installation, his only duty was the installation, checkout and training of personnel in operations and maintenance of a magnetic tape system that recorded the output from a target tracking computer.

However, at Radiation in Palm Bay, Florida, his work involved the designing of data handling hardware.

His social life at the island station was different, too. He said, "It was a pretty isolated place with three single women and hundreds of single men. If one was single like I was, one had to be a sports enthusiast to enjoy it, because there wasn't anything else to do. I took up scuba diving."

He added, "Of course, I saved a lot of money there."

Now, Praytor is married. So, according to him, his time and money is pretty well taken up by his family. He lives in Eau Gallie with his wife, Donna, and his two children, Jim and Debbie.

RELEASE NO: KSC-87-67
FOR RELEASE: Immediate

February 15, 1967

**PHYSICIST-ENGINEER QUINN
DESCRIBES JOB**

KENNEDY SPACE CENTER, Fla. - - Bill Quinn describes himself as a "cog in the wheel" - - but the fact is that he causes many of the wheels to turn at Complex 39.

A physicist-turned-engineer, Quinn is operations manager for the lunar launch complex. His office serves as a clearing house for support operations, and is responsible for providing the support services which make 39 tick.

"As a physicist, I was interested in nuclear energy, but decided there was no future there and turned to engineering," Quinn jokingly says of himself. But the native of Artesian, South Dakota, is absolutely serious about his work.

"It's a job," says Quinn of his Spaceport-contractor staff, "to ensure the necessary support for meeting test requirements and for daily operations." It is a job which might result in ^{up}orders for other men, but a calm Quinn has engineered a system which operates with the quiet efficiency of a fine watch.

- more -

A key to this system is the "scheduling room" just down the hall from Quinn's office in the Launch Control Center. Here, his staff keeps an up-to-the-minute record of operations at Complex 39.

"We meet with Launch Operations managers, then schedule required support," Quinn explains.

Such support ranges from moving a mobile launcher to paging services via the Complex 39 "intercom," from servicing pneumatic gear to installing new lighting fixtures.

Quinn is also charged with operating the "complex control center," located adjacent to the scheduling room. Here, contractor personnel monitor the support services so vital to 39 operations - - power, pump stations, fire alarm system, air conditioning and others.

Bill Quinn's uncluttered desk reflects his method of operation. He credits the personnel at Complex 39 with "doing my job for me."

Quinn was employed by a NASA contractor when he came to the Cape area in 1956. Joining the Government as a pad engineer at Complex 34, he was promoted to complex superintendant before assuming his present duties about two and a half years ago.

- 3 -

He earned his bachelor's degree in physics at the University of South Dakota, and later did post-graduate work in engineering.

Merritt Island is home for Quinn and his wife. One of their sons is now serving in the Army, the other in the Navy.

- end -

RELEASE NO: KSC-89-67
FOR RELEASE: Immediate

February 15, 1967

ENGINEER ENJOYS CHALLENGE

PRESENTED BY ROCKETRY

KENNEDY SPACE CENTER, Fla. - - There is very little similarity between a lumbering C-119 "flying boxcar" aircraft and complex electrical and mechanical ground support equipment at the Kennedy Space Center.

But to C. W. Morgan, they both represent a challenge.

It has been a few years since Morgan was a flight test engineer aboard C-119 airplanes for Hayes International, but he has since transferred his technical know-how to another flight endeavor - - the manned Apollo program.

Currently a technical representative in NASA's Launch Complex 39 Manager's Office, Morgan supervises the assembly, checkout and installation of mobile launcher service arms.

- more -

The 41-year-old engineer related that each of the three mobile launchers being used at Launch Complex 39 contains nine service arms, weighing between 10 and 20 tons apiece. These arms swing out from the 42-story-tall launcher and provide personnel access to the Saturn V's three stages, instrument unit and spacecraft. They also connect electrical cables, pneumatic lines and air-conditioning facilities between the launcher and the space vehicle.

The Apollo flight crew, Morgan went on, will board their spacecraft via the top service arm, which, in addition to three of the other arms, will be retracted several minutes before liftoff. The remaining five service arms will retract at liftoff.

"Raising and positioning the service arms by overhead crane on the mobile launchers probably were the most difficult tasks," according to Morgan.

He noted that it took a week from the time a service arm arrived by barge or aircraft until erection, and five additional weeks to make it operational.

Before joining NASA in 1963, Morgan worked for Hayes International at Birmingham, Alabama, where he helped construct the service arms. He shuttled between Birmingham and the Space Center during those days.

His real initiation into the Space Age came during the late 1950's when he worked on Jupiter missile ground support equipment in Alabama.

- 3 -

Prior to his work at Complex 39, he helped convert ground support equipment at Complex 34 and 37 to service the uprated Saturn I space vehicle.

"In addition to the actual hardware, the most interesting aspect of the job is my contact with stage contractors and other support personnel at the Center," he pointed out.

Morgan, who lives in Titusville with his wife, Monell, and two daughters, Lisa, 11, and Cynthia, 9, recently retired from the Air Force Reserve following a 23-year career.

- end -



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.2, # 40
news release

RELEASE NO: KSC-84-67
FOR RELEASE: Immediate

February 15, 1967

ENGINEERING'S 'NEW BREED'
SEARCHES FOR A BETTER WAY

KENNEDY SPACE CENTER, Fla. - - A search for new and better ways to do things is still the main task facing today's new generation of engineers.

That's the view expressed by 26-year-old Franklin Biggs, a member of the Electrical/Electronic Systems Division of the Kennedy Space Center's Design Engineering Directorate.

Biggs is quick to point out that the tools and techniques used by engineers today have changed from those available when previous generations of engineers began their careers. The basic function of an engineer, however, remains the same - - recognize a need, come up with solutions, then transform his ideas and designs into useful reality.

Biggs joined the space program a year ago after receiving a degree in electrical engineering from North Carolina State University.

- more -

He took his advanced degree when he discovered, during a visit to his alma mater, that many of the courses he had taken as an undergraduate were already obsolete and being revised to incorporate latest engineering advances.

"It's quite a job to keep up with what's going on," Biggs says. "This is one of the engineer's main problems. So much information is disseminated, and it's done so rapidly, that you need 48 hours in a day just to keep up. An engineer is more or less forced into specialization because he cannot keep track with what's going on in all phases of even one particular field, such as electrical engineering."

Biggs feels the basic problems of an aerospace engineer and any other engineer are primarily the same - - how to advance the state-of-the-art. Such advances are common in the national space program.

One example Biggs cites is a very large propellant pump. A pump of the size needed didn't exist. A contractor was called upon to design and build it, incorporating new ideas, techniques and materials that will also find use in smaller, more commonplace pumps such as those used in household washing machines and automobile water pumps.

Biggs' interest in rocketry dates back to his high school days when he was a member of a group that launched its own rockets, made of old boiler tubing. The homemade launch vehicles reached heights of from two to three miles.

"We had a lot of fun, learned a lot, and made our share of mistakes," Biggs recalls. "I think we were the first people who ever put a rocket up in the air backwards. A nose plug gave way during a static test and the bird took off in reverse, flying 500 feet in the air."



JOHN F. KENNEDY SPACE CENTER, NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION, KENNEDY SPACE CENTER, FLORIDA 32899

PHOTO CREDIT--NASA OR NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

THIS PHOTOGRAPH IS RELEASED FOR NON-COMMERCIAL, NON-COPYRIGHTABLE
PUBLIC INFORMATION USE. WRITTEN PERMISSION MUST BE RECEIVED FROM
NASA IF THIS PHOTOGRAPH IS USED IN ADVERTISING, POSTERS, BOOKS, ETC.,
AND LAYOUT MUST BE SUBMITTED TO NASA FOR APPROVAL PRIOR TO RELEASE.

PHOTO NO. 105P-KSC-67P-81
FOR RELEASE. February 14, 1967

KENNEDY SPACE CENTER, FLA.--- Twenty-six-year-old Franklin Bigge, a
member of the Electrical/Electronic Systems Division of KSC's Design
Engineering Directorate, has been interested in rocketry since high
school.

Design Engineering manages design, construction, fabrication and in-
stallation of new facilities and launch support equipment.

TECHNICOLOR

RELEASE NO: KSC-81-67
FOR RELEASE: Immediate

February 15, 1967

LaMONTAGNE WINS \$1,590

SUGGESTION AWARD

KENNEDY SPACE CENTER, Fla. - - Tom LaMontagne, a mechanical engineering technician, has been presented the highest cash suggestion award - - \$1,590 - - ever given at the Kennedy Space Center.

He won it for an idea involving the reclamation of freon that will save the Government more than half a million dollars in the first year of use alone.

LaMontagne is with KSC's Facility Cleaning and Testing Section, under Support Operations.

Specifically, he proposed that an existing distilling unit at the Center's Propellants Systems Cleaning Laboratory be modified with stock parts. This would provide a capability for reclaiming contaminated trichlorotrifluorethane (freon), through a re-distilling process.

- more -

- 2 -

Freon is used as a cleaning agent in launch activities at the Kennedy Space Center. Up to now, some freon has been disposed of after use, but much of it is placed in containers to be re-purchased by agencies with re-distilling capabilities.

By employing the suggested modifications, the same freon can be used over and over, here at the Center.

LaMontagne has been with NASA since May 1963, and has been at Cape Kennedy since 1959. Prior to that, he studied aeronautical engineering at the University of Florida.

He lives at 115 Valencia Road, Rockledge, with his wife, Patricia, and their five boys, John, 11; Paul, 10; Chris, 9; Blaise, 3; and Jody, 2.

- end -

RELEASE NO: KSC-88-67
FOR RELEASE: Immediate

February 15, 1967

**DIRECTORATE'S 243 ENGINEERS
HELP MOLD SPACEPORT**

KENNEDY SPACE CENTER, Fla. -- Whether it's designing a 12-million-pound mobile launcher, providing an air conditioning system for comfortable working conditions, or even building the world's largest cleanroom, the Kennedy Space Center's Directorate responsible for the finished product is Design Engineering.

Its role in fulfilling the Center's overall mission of providing launch facilities for NASA space vehicles is indeed a major one. Design Engineering has the responsibility of managing the design, construction, fabrication, and installation of new facilities and launch support equipment, as well as modifying existing launch facilities and ground support equipment.

The diversity of NASA's space programs imposes a variety of requirements in terms of launch facilities and equipment that fall under KSC's mission. Keeping abreast of these changing requirements, whether they are at Cape Kennedy, the Industrial Area, or Launch Complex 39, is the responsibility of 243 engineers in Design Engineering.

- more -

Approximately 35 percent of KSC's budget is required by Design Engineering to support facilities needed to carry out NASA's space programs. At this time, approximately \$880 million has been spent for all of KSC's facilities, and the manpower has involved engineers in every discipline.

A major area of responsibility is at Cape Kennedy. Originally, Design Engineering had the major task of converting research and development facilities to accommodate NASA space vehicles. More recently, modifications to Launch Complex 17 are being carried out to accommodate a longer Delta vehicle, as well as a variety of spacecraft systems modifications. This is perhaps KSC's busiest launch complex, serving as the launch site for OSO, TIROS, Explorer, and many other NASA satellites. Engineers are also designing modifications for Launch Complex 36, launch site of the Atlas-Centaur.

Design Engineering personnel have recently completed what has now been identified as the largest cleanroom in the world, in terms of volume. The addition to the cleanroom is but one area of industrial and special-purpose buildings for which Design Engineering is responsible at Cape Kennedy.

The latest and largest project in the Industrial Area included modifications and additions to the Manned Spacecraft Operations Building that totaled \$9.65 million. In this project, an addition was made to the front of the building, doubling office space. Additions and modifications were made in the low bay service area to expand laboratory, spacecraft and test areas.

Taking a look into the future , two additions to the east and west wings of the KSC Headquarters Building are scheduled for completion in March, 1968. The additions will increase office space by approximately 120,000 gross square feet.

The design and construction of launch facilities and ground support equipment at Launch Complex 39 posed a real engineering challenge. It is one thing to design and build a gantry or service structure that will be permanently anchored to the ground. It is altogether different to design and construct a portable, 9.6-million-pound mobile service structure or a portable, 12-million-pound mobile launcher.

The task of completing the facilities at LC-39 within the time frame required to receive and check out the 500-F facilities vehicle was successfully accomplished, enabling NASA to mark a major milestone in the Apollo/Saturn V program. But perhaps even more important were the results from the 500-F facility tests, which demonstrated that Launch Complex 39 is in fact operationally ready for the maiden flight of the Apollo/Saturn V.

RELEASE NO: KSC-93-67
FOR RELEASE: Immediate

March 1, 1967

FAIRMAN DESCRIBES ROLE
OF "MANAGEMENT CONSULTANTS"

KENNEDY SPACE CENTER, Fla. - - "Effective and efficient management of KSC presents some problems that are quite unique in nature, and that's where we come in," reports Robert L. Fairman, Chief of the Kennedy Space Center's Management Systems Office.

He went on to explain, "I think we could be called the 'management consultants' for the Center.

"When an official notices a possible deficiency in his area of responsibility, he requests us to study the problem.

"It's our job to find the causes and recommend solutions, always trying to find the most effective way of doing things," he concluded.

The studies made by Fairman's staff are called management systems studies. They define and determine the best way to reach a desired goal.

- more -

Subjects of the studies range from organizational alignments to work order cost systems to food service, covering all management areas.

When a study is completed, it is forwarded to the concerned Directorate for review and evaluation. The results are new procedures, management instructions and other policy statements applicable to the operation of the Center.

Occasionally, in the course of defining one problem, the office staff recognizes other problems in the same area. When this occurs, the office may initiate its own study.

Fairman explained that many of the managerial problems of the Center have never existed elsewhere, making it difficult or impossible to apply standard solutions.

The "textbook" approach is eliminated because things are happening here for the first time. Unusual situations are prevalent, primarily because of the Spaceport's size and its mission.

Fairman cited the real-time supply system as an example, stating that the Center's supply areas are spread out over such a large area that they require special managerial techniques.

Fairman, who has worked in the field of industrial engineering since receiving his degree from the University of Florida in 1954, joined KSC in 1963. His previous experience included work at Robbins Air Force Base as a branch director in industrial engineering, and two years at a research center in ordnance operations.

A native of England, he came to this country after finishing his secondary education.

RELEASE NO: KSC-90-67
FOR RELEASE: Immediate

February 17, 1967

LETTERS TO KENNEDY SPACE CENTER
URGE CONTINUANCE OF SPACE PROGRAMS

KENNEDY SPACE CENTER, Fla. - - The letters almost unanimously start off with, "Dear Sir, I was so sorry to hear"

These are letters of sympathy - - thousands of them - - that have arrived at the Kennedy Space Center following the January 27th Apollo accident that claimed the lives of astronauts Virgil Grissom, Ed White and Roger Chaffee.

They come from every state and from many foreign countries around the world.

For the most part, youngsters - - their hearts in their writing arms - - express sincere feelings of the loss of three men who had become their heroes.

And, they ask earnestly that the space program continue.

A letter from a young lad in Mayville, New York, is typical. "Although disappointments will be met on our way to the stars," he wrote, "keep going. You'll be glad you did."

- more -

From Freeport, Illinois, came this message: "I am sorry about the three astronauts. If I was big enough I would like to take their place."

"Please send me some pictures of the three astronauts," penned a youngster from Philadelphia. "I wish to remember these brave men who gave their lives for their country."

From Baltimore: "I am 10 years old. I loved those three men so much that if I had a chance to save them I would have risked my life. I only hope this will not stop your programs as I am a big fan of aeronautics and astronautics."

From Crown Point, Indiana: "I am sincerely sorry and very, very sad at the loss of the astronauts. I felt as if I knew them all myself. Please don't let this slow you down. I'm sure they would have wanted you to go on."

"We want you to know," cited a lad from Eureka, California, "that despite the fact the astronauts were killed, I still want to be a spaceman when I grow up."

From Albemarle, North Carolina, a youngster penned his sympathy, then said he would try harder in school. "I made three B's and eight A's," he noted, "but I think I can do better, and I think the astronauts would have wanted me to."

After writing his condolences, a 13-year-old from Chicago added, " I want to encourage White's, Grissom's and Chaffee's fellow astronauts and NASA's staff to keep going to explore man's biggest question - - what is out there."

From Detroit, a girl wrote on lined paper, "I wish to offer my sympathy for our great loss. I say OUR loss, because astronauts meant something special to me."

And so the letters go. By the thousands they have poured into the Kennedy Space Center. Heartfelt expressions scrawled in the inimitable handwriting of the Nation's young. The youngsters are sad, but in their sorrow they ask that the space program continue - - to bigger and better achievements.

RELEASE NO: KSC-91-67
FOR RELEASE: Immediate

February 17, 1967

225,000TH VISITOR

KENNEDY SPACE CENTER, Fla. -- A Minnesota resident, Richard Cornetet, was honored yesterday as the 225,000th visitor to take a guided bus tour of the Kennedy Space Center.

Cornetet, a hairdresser from St. Paul, was presented a large color photograph of the nation's Spaceport. The photo was signed by Dr. Kurt H. Debus, Space Center Director. Presentation of the picture was made by Ben Hursey, Center Personnel Officer.

Accompanying Cornetet were his wife, Marie; two daughters, Cynthia and Michelle; Mrs. Lowell Mertz of Port Malabar, Florida; and Mrs. Katy Mertz of Columbus, Ohio.

A highlight of the Cornetet's tour of the Spaceport was Launch Complex 39. This mammoth facility was built to accommodate the Apollo-Saturn V rocket which will be used to transport three American astronauts on a round-trip to the Moon.

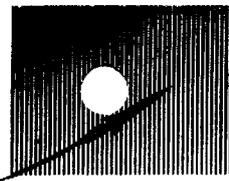
- more -

The Minnesota couple and their party also saw the huge Vehicle Assembly Building in which the giant 364-foot-tall lunar rocket is assembled. The world's largest building, it stands 52 stories high and contains 129 million cubic feet of space.

The Cornetet's tour also took them to nearby Cape Kennedy where they saw Launch Complex 19, site for all of the two-man Gemini flights. In addition, they viewed the launch sites for Surveyor, Lunar Orbiter, Mariner, Early Bird, TIROS and other unmanned space missions.

The escorted bus tours originate at Gate 3 of Kennedy Space Center, just off U.S. Highway 1, south of Titusville, Florida.

KSC



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #41

RELEASE NO: KSC-92-67
FOR RELEASE: Sunday, Feb. 26

February 24, 1967

SPACE PROGRAM TO BRIGHTEN FLORIDA'S FUTURE

KENNEDY SPACE CENTER, Fla. - - "It is Florida's destiny to become the base from which we will pursue the greatest exploration of all time," said Kennedy Space Center Director Dr. Kurt H. Debus at a Rollins College speech Sunday, Feb. 26.

"From launch sites 50 miles to the east (of Rollins), men will travel into the limitless region beyond Earth's atmosphere where one day they will encounter other living things," Dr. Debus said.

"This prospect cannot be dismissed as metaphysical speculation. It is much more a mathematical certainty than were the early theories expounded by scientists and philosophers whose observations and discoveries made possible many of our activities today."

The Space Center Director said he doubted whether Sir Isaac Newton, when he formulated his laws of motion, could have demonstrated that they would inevitably lead to rocket powered transportation systems which permit us to plan a visit to the Moon.

- more -

"The vital role which this state has played, and will continue to play, in this historic undertaking began 20 years ago," Dr. Debus said.

He then outlined the sequence of decisions that ultimately led to the site selections of Cape Canaveral and, later, Merritt Island for the Kennedy Space Center.

Speaking of the Explorer I satellite, Dr. Debus said, "with it we propelled America into the Space Age."

He told his audience the Space Center will become an increasing focus of international interest, where "the true magnitude of the space effort can best be demonstrated."

"Millions will journey here to see the base which was one of the places where Western civilization came to the New World. Now it is destined to be the place from which our civilization will go out to other worlds."

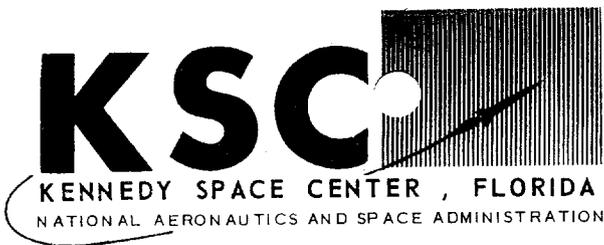
Dr. Debus said the next decade will also be one of important discovery, continuing unmanned exploration of the planets and solar system. Voyager, he added, will likely become the second spacecraft, after Apollo, to fly atop the Saturn V.

"From these (unmanned) missions will come the information and experience required for subsequent manned exploration of the solar system.

"This would entail the development of even more powerful launch systems, perhaps in the order of 35 to 40 million pounds thrust. Our studies indicate these could be safely accommodated in the Spaceport area where we have thousands of acres presently serving as a buffer or safety zone."

Dr. Debus said the national space program thus will have a lasting effect upon Florida's economy and cultural development.

2A.2, #41



news release

RELEASE NO: KSC-95-67
FOR RELEASE: Immediate

March 1, 1967

METEOROLOGIST AMMAN AWARDED SILVER MEDAL

KENNEDY SPACE CENTER, Fla. -- Ernest A. Amman, head of the Kennedy Space Center's Spaceflight Meteorology Group, was presented with the Department of Commerce Silver Medal "for highly competent skill and leadership in developing and directing weather services to Manned Spaceflight Programs," at the recent Annual Awards Ceremony of the Department of Commerce in Washington.

The medal and citation were presented by Acting Secretary of Commerce Alexander B. Trowbridge.

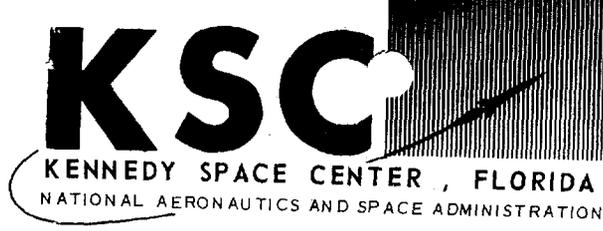
Amman, who serves as staff meteorologist to KSC, is a native of Naponee, Nebraska. He was graduated from Hastings College (Nebraska) and taught in Nebraska public schools.

He began working for the Weather Bureau in 1941 at Omaha, and served as a forecaster at Seattle, Honolulu and San Francisco before moving to Cape Kennedy in 1960.

He was in the U.S. Navy during World War II and again from 1950 to 1952 as a weather officer aboard ship. Amman has studied meteorology at the University of California.

- end -

2A.2, #41



news release

RELEASE NO: KSC-96-67

FOR RELEASE: Immediate

March 1, 1967

VAB EVACUATION TEST EMPTIES BUILDING

KENNEDY SPACE CENTER, Fla. - - When the fire alarm sounded, at 9:45 sharp on the morning of February 17, the "shelter of the giants" was swiftly evacuated.

This was the first fire evacuation drill in the huge Vehicle Assembly Building, the assembly and checkout facility for Apollo-Saturn V space vehicles. The 52-story structure was evacuated by some 2,000 employees in 25 minutes, according to the Kennedy Space Center's Industrial Safety Office, with most workers out of the building in the first 15 minutes.

"For a first drill, the test was satisfactory," said George Kontra, Chief of Industrial Safety.

Personnel were evacuated from as high as the 31st level in the 525-foot-high building, which contains 129 million cubic feet of space. Nineteen stairway exits were used in the evacuation. There were no medical emergencies.

- more -

The evacuation plan was drawn up by Kontra's office. It called for close cooperation between the KSC Industrial Safety Office, Security Office, Fire Department, Environmental Health Facility and contractor-safety personnel with a "working role" in the drill.

Wardens were assigned to each level in the VAB. They briefed handicapped workers and others on evacuation procedures, providing assistance when required, and cleared each floor. The wardens turned in checkoff rosters to monitors stationed at the bottom of each stairwell.

During the drill the elevators were operated for handicapped employees by members of the KSC Patrol. Patrolmen also directed people from the VAB and kept streets clear for emergency vehicles.

Two medical aid stations were quickly set up, on the west side of the VAB and at the northeast corner of the Launch Control Center. The stations were operated by medical personnel from the VAB dispensary.

On call, emergency teams from these stations would rush into the VAB to provide aid and assistance. By using VAB elevators, emergency crews can reach a distressed area in the shortest possible time.

Fire department equipment was on hand outside the VAB during the drill.

John R. Atkins, Chief of the KSC Safety Office, and his evacuation team spent long hours in preparing for the evacuation.

Plans for responding to VAB emergencies are monumental, complete with optional operating procedures and instructions for dealing with a great range of contingencies.

Kontra thanked VAB employees for their wholehearted cooperation during the evacuation.

The Safety Office is not saying when the next VAB fire drill is scheduled. Chances are, though, that the next one will be more of a surprise.

RELEASE NO: KSC-94-67

FOR RELEASE: Immediate

March 1, 1967

**KSC DOMINATES ROSTER
OF ECONOMY CHAMPIONS**

KENNEDY SPACE CENTER, Fla. - - Of the seven NASA employees who were named "Economy Champions of the Government for January," four are from the Kennedy Space Center.

Elliott Zimmerman of KSC's Telemetric Systems Division made the list, along with Allen Niles, Donald Peck and Orville Wahtera.

Zimmerman suggested a supply procedure that will save the Government \$11,000 the first year it is used.

Niles, Peck and Wahtera jointly suggested less frequent inspections of cryogenic storage tanks at the Center, and saved the Government \$69,000 this year.

An economy champion is a Government employee whose achievement or adopted suggestion during fiscal year 1967 has shown first-year measurable benefits of \$10,000 or more.

-- more --

In a letter to each economy champion, President Lyndon B. Johnson said, "It is gratifying, when I contemplate the billions required to make our Government function for the people, to know that you share my concern over the waste of even one dollar.

"Your economies help pay for the cost of freedom's struggle in Vietnam," the President continued. "They help to support our vital programs at home.

"As I salute you, I commend your example to every employee at every level of our Government."

Civil Service Chairman John W. Macy, Jr., also sent letters to the dollar saving champions. To Zimmerman, he wrote, "You have earned this distinction and honor as a result of your special efforts which have produced economies with NASA valued at \$11,000. Please accept my congratulations and best wishes for continued success in finding ways to operate the Government more economically."

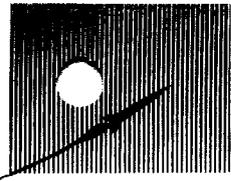
"We can be extremely proud of having placed four KSC employees on the Economy Champions roll for January," said incentive awards officer Bill Martin. "The competition from all other Government agencies is very stiff, but the Center has made an outstanding beginning in the program."

- 3 -

The first roll of Economy Champs , for January , included 69 Federal employees whose combined suggestions resulted in Government savings of \$3,481,065.

- end -

KSC



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #41

RELEASE NO: KSC-120-67
FOR RELEASE: Immediate

March 2, 1967

41,825 TOUR KSC DURING FEBRUARY

KENNEDY SPACE CENTER, Fla. - - Public bus tours attracted 41,825 visitors during February, second highest monthly total since NASA initiated the program July 22, 1966.

The record month to date was August 1966 when 59,302 persons toured the Spaceport and Cape Kennedy. Attendance in February averaged 1,494 persons daily, or 558 more than the January average and 243 more than the average maintained in December 1966.

As the last bus returned to the terminal near US Highway 1, Tuesday, total attendance since July 22 had reached 246,472.

Of those participating in the tour last month, 80.3 percent were adults, compared to an adult percentage of 60.2 in August 1966. Student attendance reached 2,899 in February or 6.9 percent of the monthly total. Special tours are provided for school classes and include a 45-minute space science lecture demonstration provided by the Space Center.

Trans World Airlines conducts the tours for NASA.

- end -

RELEASE NO: KSC-130-67
FOR RELEASE: Immediate

March 13, 1967

NASA'S SPACE PROGRAMS TO BE EXPLAINED

KENNEDY SPACE CENTER -- More than 200 key educators from Florida, Georgia, Puerto Rico and the Virgin Islands are expected in Cocoa Beach March 22 for a conference on NASA's space programs and a tour of the Spaceport.

Hal Mehrens, KSC Education specialist, said the purpose of the conference is to bring about a better understanding of the Nation's space programs as they relate to education.

Similar conferences for school administrators and physics teachers are being held at nine other NASA Centers across the country.

Walter P. Murphy, director of the Kennedy Space Center executive staff, will welcome the educators at the Sheraton-Colony.

Major addresses will include:

- "The NASA Program: Its Impact on Education," by Mehrens.
- "Propulsion Systems," by Charles Coleman, educational consultant.
- "Historical Development of Rocketry in the NASA Space Program" by Richard Dutton, technical assistant to the KSC Director of Launch Vehicle Operations.

- More -

--"The Kennedy Space Center's Launch Facilities," by Robert E. Snetzer, Facilities Engineering Manager, KSC.

Following these presentations, a panel discussion will be held involving all speakers and Ervin Hoffart, of Educational Services, Inc., and J. Stanley Marshall, associate dean, School of Engineering, Florida State University.

After a luncheon, the educators will be given a tour of the Spaceport and of KSC facilities at Cape Kennedy.

RELEASE NO: KSC-127-67

FOR RELEASE: Immediate

March 15, 1967

PARACHUTISTS FLOAT LIKE 'FALLING STARS'

KENNEDY SPACE CENTER, Fla. - - "It is a gentle, floating sensation," said Kennedy Space Center engineer Russ Wasson of his weekend hobby, which is sport parachuting.

Wasson is one of 30 members of the "Falling Stars," a Brevard sport parachuting club. Several club members are employed at the Spaceport and at Cape Kennedy.

Home base for the Falling Stars is an airfield in Rockledge.

In talking about club activities, Wasson stresses that "safety is rigidly controlled." The engineer emphasizes that sport parachuting is not frightening or physically taxing.

Wasson became interested in the sport about six months ago after he watched the son of a friend jump. "It looked interesting and I knew I had to try it."

Soon he was enrolled in a training program, learning how to jump and fall, how to control his parachute, how to land, practicing safety and emergency procedures until they became second nature. Wasson said that the mandatory training program is administered under regulations set down by the Parachute Club of America.

- more -

"By the time you make your first jump, you have confidence in yourself and your equipment," he said. Wasson has now made 16 jumps and is plainly eager for more.

The parachute club meets every Saturday and Sunday in Rockledge. Members practice "style" maneuvers such as freefalling back loops, front loops, and turns--"but only after they are qualified to do so." Another maneuver is the accuracy jump, hitting a bullseye target on the ground.

Club members compete with sport parachutists in meets where these maneuvers are judged.

What about the aerial daredevil? There is no room for him in the Falling Stars, according to Wasson, who says that safety comes first in all club activities.

Wasson added that his club has a full range of equipment and that the cost of participating in sport parachuting is reasonable.

The activity does not have an exclusive male appeal. "Three of the club's members are women."

Tired of television or playing cards? Want to try something just a little different this weekend? Contact Russ Wasson.

RELEASE NO: KSC-124-67

FOR RELEASE: Immediate

March 15, 1967

NEW LONG-TANK DELTA
COMPLEX TO BE BUILT

KENNEDY SPACE CENTER, Fla. - - Bids are expected to be advertised March 30 for major modifications to Complex 17 that will make possible the launch of a more powerful "long-tank" Delta space vehicle.

H. H. Schomberg, chief of the Facilities Liaison Office, Unmanned Launch Operations, says the construction work is scheduled to begin in early May. Completion of the project is planned by April, 1968.

A new launch deck at Pad 17-A and the addition of 14 1/2 feet to the height of the pad's umbilical tower and service structure will be required. Other modifications call for construction of a new gaseous nitrogen tank storage farm and an addition to the blockhouse.

Complex 17 was originally built in 1957 for the testing of the Thor missile by the Air Force. The facility is now operated by the Kennedy Space Center's Unmanned Launch Operations Directorate. It has been the site of Delta launches carrying communications, scientific and weather satellites into space.

- end -

RELEASE NO: KSC-128-67

FOR RELEASE: Immediate

March 15, 1967

WHO DID WALLY EVER STRIKE OUT?

KENNEDY SPACE CENTER, Fla. - - Oh, the price of being a hero!

Ann Kuchta of the Kennedy Space Center Security Office happened to get an autograph from Wally Schirra and sent it to her young nephew in Madawaska, Maine.

He wrote back, as follows:

"Thank you very much for the autographed post card from astronaut Wally Schirra. Everybody in our class is envious except Michael _____. He has an autograph of Ken Johnson, a baseball player who struck out Willie Mays.

"Mike keeps saying that astronaut Schirra never struck out Willie Mays, but I counter that by saying Ken Johnson never went into space. If Schirra ever goes to the Moon -- would that keep Mike quiet!

Your space-loving friend,

David

- end -

RELEASE NO: KSC-129-67

FOR RELEASE: Immediate

March 15, 1967

**TWO CENTER EMPLOYEES FIND REWARD
IN AREA COMMUNITY SERVICE PROJECT**

KENNEDY SPACE CENTER, Fla. - - Exercising one's civic responsibility can be a rewarding experience, as two LVO employees, Russell Harris and Jerry Wyles, discovered.

Harris, an electronic equipment inspection specialist, and Wyles, a quality control specialist, are members of a nine-man board acting in trusteeship for a new low-rent retirement complex to be constructed soon in Deland.

The \$2 million, 177-unit high-rise project for senior citizens is financed by the Federal Government under the Community Facilities Act and administered by the Housing and Urban Development Commission (HUD). Completion date for the project is 1968.

"The complex is part of a radical new approach to low-cost housing for the elderly," said Harris. "Everything has been planned with the retiree in mind. For example, all apartments in the complex are air conditioned, carpeted and equipped with a full kitchen.

- more -

"There will be complete recreational and social areas, including lounge, snack bar, art and craft rooms, barber and beauty shops, movies and laundry facilities. A multi-service center is also planned, where social, educational counseling and employment services will be provided for tenants.

"In addition, all meals are furnished and the complex will have free medical facilities. Most important, these facilities and services are included in the rents, which range from \$67.50 to \$93.50 a month for efficiency and bedroom apartments."

The idea for the complex was originated by Dr. Mary Catheryn Park, Dean of Social Sciences at Brevard Junior College, explained Wyles.

"The Government agreed to finance the program, and a nine-member board of trustees was solicited from civic-minded individuals in the surrounding areas. Harris and myself were asked to serve on the board since it was felt that NASA should be represented."

"It is hard but rewarding work," Harris emphasized. "After months of consultations with HUD officials, we have secured Federal financing and site approval and drawn up by-laws.

Wyles revealed that plans are also underway for additional retirement complexes in Volusia, Brevard and Indian River Counties.

Wyles, who was born in Bonham, Texas, has worked in the aerospace field for 17 years. Before joining NASA three years ago, he traveled Atlas missile sites as a quality control inspector for Douglas, General Dynamics and Boeing. He lives in Titusville with his wife, Wanda, and their three children.

Harris, a Wisconsin native, came to the Cape area in 1957 as a member of the old Missile Firing Laboratory headed by Dr. Kurt H. Debus, now Director of KSC. He resides in Cocoa with his wife, Carol. They have three children.

Persons interested in obtaining further information on age and eligibility requirements for the Deland complex can contact Harris at 632-5838 or Wyles at 267-1684.

RELEASE NO: KSC-126-67

FOR RELEASE: Immediate

March 15, 1967

FOR BOY SCOUTS, HAPPINESS IS--
A WEEKEND SPACEPORT CAMPOUT

KENNEDY SPACE CENTER, Fla. - - Weekend camping trips that include a tour of the Nation's Spaceport are proving popular with Boy Scout troops, Civil Air Patrol cadets and other organized groups of youngsters.

A campground just south of the Haulover Canal has been set up by the Merritt Island National Wildlife Refuge. Refuge Manager Curtis Wilson says the site has been getting more and more use in recent weeks as news of its availability spreads about the state.

The campsite is a few miles north of Launch Complex 39 and the Vehicle Assembly Building, among the first things the youngsters notice as they arrive on their outings.

A tour of the Space Center is the highlight of their visit. The scouts also get experience in such things as cooking, fire building, use of knife and axe, nature study and other scouting requirements at the camp grounds.

- more -

- 2 -

KSC's Educational Programs Officer, Hal Mehrens, says the combination of camping and Spaceport tour is an educational experience for the youngsters.

"The children go away from the center and their camping area with a much better understanding of the Nation's space program, the concepts of rocket propulsion, and the scientific activities of NASA," says Mehrens. "We hope this motivates them to do a far better job in their school work so that they can play an important role, not necessarily involving space, but certainly in this extremely complex and highly technical society in which we live."

- end -

RELEASE NO: KSC-125-67

FOR RELEASE: Immediate

March 15, 1967

FOR KSC RECEPTIONIST:

THE DAY MOVES FAST

KENNEDY SPACE CENTER, Fla. - - The attractive receptionist looked up from her typewriter, mechanically thumbed through a stack of cards and politely directed a middle-aged woman who had just entered her office to be seated.

This scene could have taken place in a doctor's waiting room or in countless other types of offices, but to the woman, it marked the possible beginning of a Space Age career. She was applying for a job at NASA's Personnel Office at the Kennedy Space Center.

The receptionist, Suzette Morse, would repeat this same procedure dozens of times throughout the busy day as she endeavored to help match work skills with corresponding job availability.

Suzette's office is strategically located just off the main corridor of the Headquarters Building.

- more -

The young receptionist-secretary has a varied job which brings her into contact with dozens of persons throughout the day--both potential employees as well as prospective employers.

"Everything revolves around the Federal Civil Service Register," Suzette noted. "If you want to work for the Government, you must have your name placed on a register," she advised.

The native Floridian processes mostly clerical personnel, but also helps engineers and administrative specialists secure the paperwork and advises the proper route to follow for Federal employment.

She also speaks with applicants referred from other NASA centers and Civil Service Agencies located throughout the United States.

Suzette combines her thoroughness and efficiency with a certain down-to-earth manner, one which immediately puts nervous applicants at ease, says Harry Smith, her supervisor.

Her thoroughness might be attributed in part to the fact she worked two years for the FBI's personnel division in Washington, D. C., before joining the KSC staff three years ago.

Her fellow workers unanimously agree that she takes a personal interest in applicants , almost to the point of sounding like a "mother hen." In addition to her official duties , Suzette often finds roommates for new persons in the area and performs other vital "humanitarian" services which help make her one of the most popular secretaries at KSC . Frequently, her "alumni" visit her in much the same way former students visit a school teacher, bearing tales of their new jobs .

Asked how she maintains her composure and pleasant manner amidst phones ringing , endless questioning from job applicants and the like , Suzette related that she always tries to put herself into the shoes of persons seeking employment . "I always try to remember the importance of my being able to help the applicant since his future may very well hinge on the information provided,"she related .

Occasionally , she receives a call for Suzette DeLoach , " her maiden name of a few months ago , to which she invariably smiles to herself and tells the caller , "I'm married now ." Her husband , John , is a printing executive in Vero Beach where Suzette grew up and where they now live .

How does she spend her spare time? Mostly accompanying her husband to Junior Chamber of Commerce functions throughout the state . John is an active J.C. and supervises workshops nearly every weekend .

- 4 -

In addition to her contact with the public, Suzette also assigns KSC pool typists throughout the Center.

There's never a dull moment in the personnel reception room, according to Suzette. "I interview more than 5,000 persons a year," she related.

"I wouldn't trade the excitement and satisfaction for the world," she added.

- end -

RELEASE NO: KSC-146-67

FOR RELEASE: Immediate

March 31, 1967

TOUR RECORD ESTABLISHED

KENNEDY SPACE CENTER, Fla. -- A new monthly record attendance for daily bus tours was established in March, due principally to sharply increased patronage over the Easter holidays.

The previous record of 59,302 was registered in August 1966, first full month of operation by Trans World Airlines of the NASA Tour program.

During the 31 days of March 1967, attendance reached 60,765. The daily average of 1,960 patrons this month compared with 1,913 per day last August.

To cope with the crowds who thronged the tour facilities at Gate 3 near US Highway 1 south of Titusville, the Center utilized its entire fleet of 20 leased buses and called in additional buses from the General Services Administration fleet which supports Center launch operations.

Attendance of 19,740 during the period March 23 through March 29 averaged 2,820 per day, slightly less than the 3,222 average during the period from December 26, 1966 through January 1, 1967 when 22,552 persons took the tour.

- more -

- 2 -

Tour attendance passed the 300,000 mark this week.

In August there were 35,716 adults, 15,575 children, 7,636 teen agers and 355 student patrons. The March 1967 figures were 42,089 adults, 8,906 children, 6,205 youths, and 3,565 students. Today's attendance was 1,963.

- end -

RELEASE NO: KSC-161-67
FOR RELEASE: Immediate

April 11, 1967

**AUTOMATIC RETAILERS TO OPERATE
FOOD SERVICES AT KENNEDY SPACE CENTER**

KENNEDY SPACE CENTER - - Automatic Retailers of America, Inc., a Delaware-based company, will take over food service and vending machine operations at the Kennedy Space Center, NASA, on or about April 24.

The Macke Company, which has provided these services since June 1963 elected not to continue its contracts.

Food and vending service contracts at the Center are managed by the NASA-Exchange, KSC, under a commission basis, with the Exchange receiving a percentage of gross receipts. The money is used to finance employee recreational and social functions sponsored by the Exchange, which is a non-appropriated fund activity chartered under NASA regulations.

The food services contract involves operation of a main cafeteria and central kitchen, three satellite cafeterias, four snack bars, two semi-mobile snack units and two mobile units.

- more -

The vending contract involves approximately 300 machines at various Center locations.

Automatic Retailers has considerable management experience in operations at large installations. They have a similar contract for food services at NASA's Marshall Space Flight Center in Huntsville, Alabama, and at a number of military bases.

ARA is the largest food service company in the United States, and daily serves more than 4,000,000 people at thousands of locations. The company has 25,000 employees, including 200 graduate dieticians.

It is expected that the transition of contractors can be made with a minimum of inconvenience. Macke employees here will be interviewed for positions with Automatic Retailers.

The new contractor was competitively selected on the basis of its wide experience in the field. Jack McGaha will be the local general manager for Automatic Retailers at the Center.

RELEASE NO: KSC-165-67
FOR RELEASE: Immediate

April 11, 1967

CONCESSIONAIRE OPERATION
OF NASA TOURS DISCUSSED

KENNEDY SPACE CENTER, Fla. - - Concessionaire operation of NASA tours at KSC was the subject of a day-long NASA and industry conference last Friday.

Attending were representatives from approximately 13 leading concessionaire firms, including local companies.

Briefings were held in the KSC training auditorium. The introduction was given by William M. Lohse, Chief of the KSC Procurement Office. Simon J. Burtschell, NASA tour Manager, presented background information and explained present tour operations. He also discussed the Visitor Information Center staffing and operation.

The final session was conducted by Paul M. Guntharp, KSC Contracting Officer, who presented the government's objectives in the overall tour program. A question and answer period followed.

- more -

- 2 -

Purpose of the presolicitation conference was to discuss with industry the prime areas of concern in the Concessionaire Agreement. These include the operation of the Visitor Information Center facility, snack and souvenir stands and bus tours.

TWA conducts the tours under contract to NASA.

Following today's conference a Request for Proposals will be sent to interested companies, incorporating suggestions and comments made during the sessions.

A tour of the Space Center preceded the conference.

- end -

RELEASE NO: KSC-164-67
FOR RELEASE: Immediate

April 12, 1967

210 KSC EMPLOYEES
HAVE PERFECT ATTENDANCE

KENNEDY SPACE CENTER, Fla. - - Nearly eight percent of NASA employees at the Kennedy Space Center made it through 1966 without taking sick leave.

Accounting Department records show that 210 Civil Service employees who spent the full year at the Center last year had perfect working health.

Many more had no need of sick leave during their employment at KSC or throughout the year, but since they were not at KSC for the whole year their records were not included in this tabulation.

"The real value is in the long term protection accumulated sick leave provides in the event of major illness," said Ben Hursey, Director of Personnel.

"Employees who are fortunate enough to enjoy good health, and prudent in their use of sick leave, are able to build a very comforting reserve policy toward the time they may need the leave during a serious disability or injury.

- more -

"Sick leave is a privilege rather than a right," Hursey noted, "and most employees understand and respect this. A few abuse the privilege, however, and these are the real losers. They don't consider that it may take several months to recuperate from an illness or an accident. Health insurance may pay the medical expenses but it won't buy the groceries or pay the rent or mortgage."

"The old saying 'those that has - gets' certainly applies to sick leave savings. Those who are lucky enough to remain well are doubly lucky because they increase the total value of their sick leave insurance each year."

The list of healthy individuals during 1966 begins with Center Director Dr. Kurt H. Debus and includes: Ernest W. Eulitz, Edward W. Graham, Lansing E. Broadhurst, Sherman J. Evans, John A. Buckley, Adam M. Kissiah, Jr., Gordon L. Harris, Edgar J. Manton, Herschel L. Hart, Charles Hibbard, Edgar L. Gibson, Dean R. Wood, and James D. Bean.

Darrow L. Webb, Arthur D. Steele, Lex L. Clark, Frank Primus, Victor E. Christensen, Douglas K. Stevens, William A. Brown, William T. Griggs, Herbert E. McDilda, Marvin C. Williams, Helen M. Kuter, John A. Russell, Walter R. Cooney, and Thurston B. McLeran, Jr.

John J. McDonough, John P. Nelson, Robert E. Moore, Hugh H. Barrington, Leo J. Grumblatt, Dean G. Hickey, Donald R. Bailey, Marilyn B. Pagni, Walter P. Baleyko, Nels A. Lovegren, A. Donald Dickson, R. A. Jamieson, John F. Kolasa, Conrad G. Nagel, John E. Markovich, Marye H. Markum, Bernard E. Sabins, and Vincent V. LaBon.

A. L. Sanders, Edwin Scott, Charles B. Hogg II, Herman Brunke, Richard C. Walker, Albert F. Siepert, Charles F. Henschel, Paul F. Cahalan, Mario H. Camomilli, Marion L. Miles, Carl L. Griffis, Billy J. Martin, Murray D. McGarry, Charles C. Young, James J. Devlin, Enice E. Hubble, John T. Rogers, Robert M. Kernan, and John H. Schnieder.

Perry M. Rogers, Donald W. Page, Donald Leitner, Robert A. McDaris, Edwin E. Rewerts, Graydon F. Corn, Beryl E. Clements, William J. Morris, Elmer G. Davis, Marvin H. Heckendorf, Richard W. Nanimaker, and Bobby Ray Deloach.

John R. Zeman, Arthur F. Konopka, Charles W. Floyd, Joseph E. Chenette, William J. Walsh, James D. Armstrong, Joseph R. Phillips, Donald L. Billstone, Thomas A. Pletcher, John T. Turner, C. T. Deans, and Ronald D. Clements.

Clyde R. Bridewell, W. M. Lohse, Jerry K. Jackson, John J. Neilon,
David J. Murphy, Joel Philip Stinson, Warren E. Whittington, Harold H. Franks,
Jack E. Baltar, Logan T. Robertson, David A. Scofield, John W. Ramsey,
Edward G. Rock, Robert Lewis, and Francis Cibelli.

David R. McLemore, Eugene M. Sestile, Thomas J. Lee, C. A. Bethea,
Robert H. Gray, Hans F. Gruene, Pleddie M. Baker, Fred J. Stevens, Edward
John Popovich, Robert G. Abbott, Jimmie G. Hangartner, Charles D. Rudd, and
R. M. Gramling.

E. D. Osinski, Francis E. Hughes, Robert E. Lee, Robert B. Everette,
Richard P. Dodd, Marion D. Edwards, Jr., Robert E. Gorman, Carroll V. Hughes,
Anton Lohner, Jr., Dewey L. Childs, Jr., and Wallis C. Rainwater.

Bailey E. Stimson, Carl A. Whiteside, Raymond O. Stinson, John W. King,
Louis L. Kaufman, Jr., Thomas F. Goldcamp, Rocco A. Petrone, Prosper A.
Fagnant, Paul O. Siebeneichen, Robert E. Johnson, Sigfrid E. Carlson, and
L. Steven Harris.

William L. Betts, Kenneth W. Colley, Jimmy D. Broadwell, Raymond
Dougherty, Lionel E. Fannin, Herbert L. Holmgren, George H. Hughes, Jr.,
Everette S. Mann, Robert E. Moser, Jr., Bobby G. Reyer, John M. Twigg, Jr.,
Randall E. Youmans, and Theodor K. Vowe.

Gatha F. Cottee, Waunita D. Wetzel, Jack H. Williams, Willie N. McClintock, Michael E. Haworth, Carl J. Dahl, Eugene Bishop, Robert G. Long, Douglas E. McDuffie, Jr., Arthur L. Crowell, Dugald O. Black, Earl D. Cockerham, Sr., and Carner W. Dowling.

Charles G. Gadow, Conrad E. Hopton, Walter W. Kavanaugh, Edward R. Mathews, Joseph B. Pitts, Isom A. Rigell, James R. White, Albert Zeiler, Charles F. Orrill, Peter A. Minderman, Dwight Spencer, William J. Clearman, Ernest E. Jernquist, Worthington C. Hildreth, and John N. Brewer.

Charles M. Miller, David L. Tharp, Karl Sendler, John C. Davidson, William E. Decker, John H. Dickinson, and G. Merritt Preston.

James C. Cerven, Leon Dugoff, George F. Page, Joseph L. Stoeckl, William H. Schick, Thomas M. Levann, Harold D. Hampton, Robert C. Shirley, Wiley E. Williams, William R. Wilkins, and John H. Weisner.

Lee R. Bridgeman, Katherine B. Morris, John A. Hallmark, Jr., William C. Hibbs, George A. Valdyke, William R. Durrett, James J. Tadich, Walter J. Kapryan, Carson M. Giesler, Thomas P. Keenan, and Frank L. Norton.

RELEASE NO: KSC-163-67
FOR RELEASE: Immediate

April 12, 1967

**CONSTRUCTION ACTIVITY
BRISK AT SPACE CENTER**

KENNEDY SPACE CENTER, Fla. - - Power saws whir and scream while ringing hammers tattoo the roar of earth-moving equipment: These sights and sounds mark the widespread construction projects now underway at the Spaceport.

In the Industrial Area, wings are being added at each end of the Headquarters Building. A Visitor Information Center is rising. The Occupational Health Facility will soon triple in size.

At Complex 39, a third high bay in the Vehicle Assembly Building is being outfitted to accommodate the 364-foot Apollo-Saturn V. A press site for viewing Saturn V launches will be completed this month. Engineers and technicians are expected to occupy the new Propellant Systems Components Laboratory Complex this summer.

Lloyd G. Ernest, chief of the Saturn V Facilities Branch, said that outfitting of high bay 2 in the VAB "is well underway." Completion of this project, early in 1968, will permit the assembly of three Saturn V vehicles simultaneously, one in each of the three equipped high bays.

- more -

The LC-39 Press Site has accommodations for 300 news representatives in the covered bleacher viewing area. There is a press site control building and a communications terminal building along with parking areas for vans owned by news media organizations.

The LC-39 propellant systems complex, scheduled for occupancy in July, will include a propellant components lab, operations building, gaseous nitrogen charging station, de-ionized water plant, propellant-transporter repair and maintenance facility, propellant-trailer parking areas, and storage facilities.

The Crawlerway to Pad B at Complex 39 is being topped with river rock. Ernest said the job will be finished in June. Work on Pad B is generally complete. At Pad A, additional climate control equipment will be in operation by July.

Bradley L. Baker, chief of the Spacecraft and Support Facilities Branch, manages facilities engineering for construction at the Spaceport's Industrial Area. He listed March 1968 as the expected completion date for additions to the KSC Headquarters Building.

A wing is being built at each end of the Headquarters Building. A chief use for the 120,000 square feet of extra space is to provide a permanent working area for KSC personnel who now work in trailer offices.

Construction of the Visitor Information Center, located a mile west of Kennedy Parkway, is now 35 percent complete. Scheduled to open to the public in July, the center will feature educational exhibits and serve as a terminal for conducted bus tours of the Space Center.

The Occupational Health Facility will triple in size with the completion of two wings this fall. The added 9,200 square feet of space will furnish examining rooms, lab space and research facilities.

The Flight Crew Training Building is being modified to house a second Apollo mission simulator, a documentation center, operational area and storage space. Scheduled occupancy date is July.

Other construction in the Industrial Area includes an addition to the Central Telephone Office, installation of a third boiler at the Boiler Plant, and supplemental air conditioning equipment at the Central Instrumentation Facility.

RELEASE NO: KSC-167-67
FOR RELEASE: Immediate

April 17, 1967

**NASA TO DISPLAY
PATENTS AT EXPOSITION**

KENNEDY SPACE CENTER, Fla. - - The National Aeronautics and Space Administration will display a number of its patents at the sixth annual Inventors' Congress of the Florida Industries Exposition in Orlando, April 18-21.

The Congress gives exposure to inventions and patents, and advice on financing, production and marketing procedures to manufacturers, purchasing agents, bankers, export-import dealers and marketing managers.

Over 75,000 people attended last year's exposition.

NASA's patents will include inventions of a high temperature nickel-base alloy, a wire grid forming apparatus, a high temperature spark plug and a super-conducting magnet.

In addition, copies of all NASA patents currently available for licensing will be displayed.

- more -

NASA's display will consist of patents that are available for exclusive and non-exclusive licensing. The Space Agency has 241 patents available for non-exclusive licensing and 122 available for exclusive licensing.

NASA grants both exclusive and non-exclusive licensing on patents. An exclusive license is granted to create an incentive for the working or production of a patent by a contractor. Patents that have not been taken by a contractor by the end of the second year after its issuance are made available for an exclusive license. During the first two years after the issuance of a U.S. patent, a non-exclusive license is normally offered.

NASA has a licensing program to allow their inventions to serve the interests of the United States.

Participation in the Inventors' Congress is a part of a NASA policy established by the U.S. Congress to insure that the space program will inform and benefit the public.

RELEASE NO: KSC-170-67
FOR RELEASE: Immediate

April 18, 1967

SPACEPORT EMPLOYEES WARNED
OF BRUSH FIRE HAZARDS

KENNEDY SPACE CENTER, Fla. - - The water shortage in north Brevard County is affecting the Spaceport, resulting in brush fires and tinder-dry woodlands.

A brushfire April 13 on the Center north of Haulover Canal burned a 2 1/2 square mile area. The blaze was brought under control in 12 hours, according to Deputy Fire Chief Ralph Mull.

Smaller brushfires have occurred since. Tanker trucks and bulldozers are used to fight the fires. There is no shortage of water for this purpose.

William Eldredge, KSC Fire Chief, urged all Spaceport personnel to practice strict fire prevention measures. "Be especially careful with lighted cigarettes and matches, and do not start an open fire without a permit," the Chief asked.

Citrus groves on the Spaceport have not been damaged by fire. However, the dry spell could reduce next season's citrus crop unless rains ease the situation.

- more -

Dick Siler, KSC meteorologist, said that KSC had only four days of measurable rain since Feb. 23. Since last September, the Center should have received about 32 inches of rain. The actual amount of rain has been closer to 14 inches.

Siler looks for frequent showers to relieve the dry spell soon, but observed that "it is going to take substantial amounts of water to bring the water table back to where it belongs."

There is no shortage of potable or drinking water. This is the report from Herman Brunke, Chief of the Utilities Engineering Branch. Brunke explained that, for the most part, the Spaceport receives its water supply from the City of Cocoa.

Cocoa has so far been spared the water shortage prevalent in the northern part of the county. However, Brunke said that city engineers informed him of a pump problem and have requested that KSC conserve its water supply for the next several days.

As a result, Harrell Cunningham of the roads and ground office said that watering and irrigation activities will be cut back temporarily.

Armand Boyer, of the KSC fire department, said that the low water situation has no effect on operations at Launch Complex 39. He pointed out that the complex has a 1.4-million-gallon storage capacity and draws water from artesian wells.

The Merritt Island National Wildlife Refuge, located in the northern part of the Spaceport, shows the most visible signs of a drought situation. "Water is down close to a foot in some areas," said refuge manager Curtis Wilson.

Wilson and his assistant, Jerome Carroll, said that fish and wildlife are managing quite well so far. "Fish are being driven into deeper water but there is no evidence of a fish kill due to crowding and lack of oxygen in the water," Carroll reported.

The fish are restricted to deeper-water areas and fishing is generally good," said Wilson. His observations indicate that shore and water birds are finding a lot of feed in low-water areas.

However, the wildlife manager is not happy about the drought situation, terming it "fairly explosive" at the present time. If marshlands continue to dry up, fish and wildlife could suffer and the danger of fire would increase.

Wilson, like most affected by the water shortage, summed it up this way: "I'd like to see some rain."

April 26, 1967

RELEASE NO: KSC-177-67

FOR RELEASE: Immediate

KSC CHORUS WILL PRESENT
FOUR CONCERTS IN MAY

KENNEDY SPACE CENTER, Fla. - - Four concerts will be presented during May by the Kennedy Space Center Chorus with the Tijuana Show Band. The musical program will blend popular favorites and show tunes, old and new.

Selections include "76 Trombones", "They Call the Wind Maria", and an original Spanish-flavored composition "Caballero With the Sombrero" by George Robb, chairman of the Chorus.

Arthur C. Benington directs the Chorus. Tech. Sgt. Phil Umstead leads the Tijuana Show Band, ten members of Patrick Air Force Base's 536th AF Band, playing special arrangements on the style of Herb Alpert's "Tijuana Brass".

The Cocoa High School auditorium is the site for the first of three 90-minute concerts, May 2 at 8 p.m. On May 9 at 8:30 p.m., the Chorus and Band will perform at the Patrick Theater, with admission limited to Air Force personnel and their families. The Melbourne Civic Auditorium is set for a concert on May 18 at 8 p.m. The final concert, planned for May 21, will be a special half-hour program for the Titusville Centennial celebration.

- more -

- 2 -

Admission to the Cocoa, Patrick and Melbourne concerts will be free. Admission will be charged for the Titusville concert.

The Chorus is a Space Center employee's activity sponsored by the Kennedy Athletic, Recreation and Social Exchange Branch. George Maguiar, news director of WRKT, Cocoa Beach, will be the master of ceremonies at the concerts. Anna Aytes is the accompanist for the Chorus.

- end -

RELEASE NO: KSC-178-67
FOR RELEASE: Immediate

April 28, 1967

KSC PROCUREMENT IN BREVARD

KENNEDY SPACE CENTER, Fla. - - More than \$9,000,000 in contracts was awarded to Brevard County firms by the Kennedy Space Center from July 1965 through June 1966.

By cities, the awards over \$25,000 were: Cocoa Beach, \$5,612,021
Cape Canaveral, \$2,057,469; Satellite Beach, \$531,841; Titusville, \$428,118;
Cocoa, \$354,986; and Eau Gallie, \$57,769.

The \$9,000,000 in contracts awarded in Brevard County amounted to over 28 percent of the \$32,000,000 awarded in Florida during the 12 months.

- end -

RELEASE NO: KSC-186-67

FOR RELEASE: Immediate

April 28, 1967

**PLAYALINDA BEACH TO BE OPEN
AGAIN THIS SUMMER**

KENNEDY SPACE CENTER, Fla. - - Playalinda Beach will be open to the public again this summer.

This is the third consecutive year it has been opened by agreement between NASA's Kennedy Space Center and the Brevard County Commission.

The agreement has been signed by Dr. Kurt H. Debus, Center Director, and Lee Wenner, chairman of the Commission.

It provides for operation of the NASA—owned beach by the North Brevard Park and Recreation Commission, managed by Jack Miller.

This commission will furnish seven-day-a-week lifeguard protection from June 5 through Labor Day. Six guards will be on duty during the week and seven on weekends, from 10 a.m. to 6 p.m.

Weekend lifeguard protection actually began April 8, and since then an estimated 13,000 people have used the Playalinda Beach facilities.

- more -

The North Brevard Park and Recreation Commission is a joint endeavor involving Brevard County, the City of Titusville and the County School Board.

NASA first allowed public access to Playalinda in 1965 when it became necessary to close Titusville Beach. This was in line with the Space Center's desire to afford to the residents of local communities the use of this popular area.

The agreement states that the beach shall be open for use by all members of the public without regard to national origin, race, creed or color.

RELEASE NO: KSC-196-67
FOR RELEASE: AM May 5, 1967

May 3, 1967

VICE PRESIDENT, REPUBLIC OF CHINA
TO VISIT KENNEDY SPACE CENTER

KENNEDY SPACE CENTER, Fla. - - His Excellency C. K. Yen, Vice President of the Republic of China, will visit NASA's Kennedy Space Center Thursday, May 11, as guest of Dr. Kurt H. Debus, Director.

The Vice President will be in the United States on an official state visit at the invitation of President Lyndon B. Johnson.

Mr. Yen will arrive at Patrick Air Force Base at about 12:30 p.m., where he will be greeted by Dr. and Mrs. Debus and Major General David Jones, Commander of the Air Force Eastern Test Range, and his wife.

A luncheon at Cocoa Beach will be held before the Vice President begins his tour.

First stop will be the Range Control Center at Cape Kennedy for a briefing on the Eastern Test Range.

- more -

- 2 -

Next will be a briefing on the Mariner-Venus probe at Launch Complex 12 by John Neilon, Deputy KSC Director of Unmanned Launch Operations.

The official party will then drive by Complexes 14, 19 and 34 enroute to the Launch Control Center at Complex 39 on Merritt Island.

Rocco Petrone, Director of KSC Launch Operations, will brief the Vice President on Saturn V facilities and the manned lunar landing program. Mr. Yen will view Firing Room 1, the Saturn V in the Vehicle Assembly Building, and the transporter and mobile launcher areas.

He will be presented with a model of the Saturn V by Dr. Debus.

After the tour a private dinner will be held for Mr. Yen. He will depart the area Friday morning for NASA's Manned Spacecraft Center in Houston.

- end -

RELEASE NO: KSC-166-67
FOR RELEASE: Immediate

May 3, 1967

HALF OF CENTER EMPLOYEES
ARE COLLEGE GRADUATES

KENNEDY SPACE CENTER, Fla. - - Half the employees of the Center are college graduates and 42 percent of them are engineers.

A personnel survey also revealed that 1,170 of the 2,724 Civil Service employees have 10 or more years in Government service while 388 have over 20 years.

Average age of the work force is 38 years.

There were 2,108 men employed as of March 31 compared with 616 women.

In addition to the 1,159 engineers, there are 456 technicians, 513 administrative professionals, 588 clerical workers, 3 wage board employees and 5 military officers detailed to KSC.

Eighty-seven have master degrees while eight, including Center Director Kurt H. Debus, have achieved doctorates.

- more -

- 2 -

Many of the specialties in aerospace technology represented in the work force did not exist in Government career fields 10 years ago. The engineering and scientific specialties and the number in each are as follows:

Technical management, 213; experimental facilities and equipment, 125; flight systems test, 117; measurement and instrumentation systems, 95; launch and flight operations, 90; data systems, 71; quality assurance, 29; electrical systems, 60; measurement standards and calibrations, 4; control systems, 8; tracking and telemetry, 26; tracking systems, 3; telemetry systems, 29; telecommunications, 32; control and guidance systems, 58; environmental control, 8; materials, 11; flight mechanics, 3; data equipment, 10; fluid and flow systems, 13; electrical experimental equipment, 18; executive management, 2; experimental facility techniques, 31; project management, 8; propulsion systems, 20; flight systems, 11; reliability, 10; and one each in life sciences project management, meteoroid studies, stability control and performance, materials and structures, basic properties of materials, and liquid propellant systems.

Additionally, the Center employs chemists, industrial engineers, electronic and electrical engineers, an architect, sanitary engineer, photographic technologist, agronomist; and civil, safety, mechanical and general engineers.

- end -

May 4, 1967

RELEASE NO: KSC-198-67
FOR RELEASE: Immediate

GENERAL HUSTON GUEST OF HONOR
AT KENNEDY SPACE CENTER LUNCHEON

KENNEDY SPACE CENTER, Fla. - - Major General Vincent G. Huston, Commander of the Air Force Eastern Test Range for the past three years, was guest of honor at a luncheon today hosted by Dr. Kurt H. Debus, Kennedy Space Center Director.

At the luncheon in the KSC Headquarters Building, Dr. Debus presented General Huston with a model of NASA's Saturn V rocket and an enlarged color photograph of the Vehicle Assembly Building.

General Huston has been reassigned as Deputy Chief of Staff for Operations, Air Force Systems Command. He will be replaced here by Major General David M. Jones, who will assume command tomorrow.

General Huston and Dr. Debus have worked closely together over the past three years as the Center and Range have developed.

Major Clayton Kravec, General Huston's aide, also attended the luncheon.

NASA management representatives present included Deputy KSC Director Albert F. Siefert, Gen. John Shinkle, G. Merritt Preston, Dr. Hans Gruene, Pat Murphy, Karl Sendler, Bob Gorman, George Van Staden, C. C. Parker, Robert McDaris, Gordon Harris, Robert Gray, Gen. Fred Miller, Ralph Hicks and Bob Heiser.

- end -



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #43

RELEASE NO: KSC-179-67

FOR RELEASE: Immediate

May 5, 1967

KSC BUYS \$760,000 FROM SMALL BUSINESS

KENNEDY SPACE CENTER, Fla. - - Approximately \$760,000 in orders for materials and services was placed with Brevard County small business concerns through Kennedy Space Center blanket purchase authorizations during the period July 1965 through June 1966.

Blanket purchase authorizations are charge accounts established to acquire materials and services for which there is a recurring or quick response requirement. Individual orders are frequently placed by telephone.

Cocoa firms received \$322,122 in orders and Melbourne concerns received \$229,489. Other purchases included \$77,486 placed in Grant, \$76,352 in Titusville, \$67,087 in Cocoa Beach, \$49,719 in Cape Canaveral, \$4,151 in Merritt Island and \$1,871 in Satellite Beach.

- end -

RELEASE NO: KSC-211-67

FOR RELEASE: Immediate

May 9, 1967

CONCERTS SCHEDULED

KENNEDY SPACE CENTER, Fla. - - The Kennedy Space Center Chorus joins with ten members of Patrick Air Force Base's 536th AF Band tonight (May 9) for the second in a series of spring concerts. The band members, under the leadership of Tech. Sgt. Phil Umstead, play special arrangements on the style of Herb Alpert's "Tijuana Brass".

Admission to tonight's performance at the Patrick Theater is limited to Air Force personnel and their families. Showtime is 8:30 p.m.

Two more concerts are on tap this month by the KSC Chorus and Tijuana Show Band. A 90 minute program blending popular favorites and show tunes, old and new, is set for the Melbourne Civic Auditorium May 18 at 8 p.m. Admission is free.

Admission will be charged for a special half-hour concert May 21 at 8:30 p.m. during the Titusville Centennial celebration.

Arthur C. Benington directs the Chorus, a Space Center employee's activity sponsored by the Kennedy Athletic, Recreation and Social Exchange Branch. Anna Aytes is accompanist. George Maguiar, news director of WRKT, Cocoa Beach, is master of ceremonies.

- end -

RELEASE NO: KSC-172-67
FOR RELEASE: Immediate

May 10, 1967

KSC SITE ACTIVATION BOARD
WORKS TOWARD OPERATIONAL SPACEPORT

KENNEDY SPACE CENTER, Fla. - - The time: late summer, 1965.

The place: Firing Room 4 of the Launch Control Center at Complex 39.

The occasion: a meeting of the Site Activation Board to discuss the progress being made in meeting scheduled operational readiness dates for the nation's Spaceport.

The verdict: Unless existing plans were modified, the launch complex would not be ready when scheduled. A computer analysis of all available data predicted a six months slippage.

"This was our first attempt to integrate all of the individual plans of all stage and support contractors and NASA internal organizations here through the PERT system--Program Evaluation Review Technique," recalls Lt. Col. D. R. Scheller, chief of the Site Activation Office and chairman of the Site Activation Board.

- more -

- 2 -

"By using these computer analyses, updated every two weeks, we were able to put the proper management attention to those areas spotlighted as problems, eliminate that 26 weeks of potential slippage, achieve an on-schedule posture and maintain it through to the present."

The PERT system that made this possible is a widely used management tool to control the fitting together of the myriad pieces of any complex undertaking.

The Navy used the system very effectively in the Polaris program. The Air Force utilized PERT in many of their ballistic missile programs. It is employed extensively by NASA.

"I think it's safe to say," Col. Scheller reports, "that Launch Complex 39 site activation has been one of the most successful applications of PERT in managing a large program. It's gained national attention in several trade journals and has been recognized as unique in its tremendous scope."

At the program peak, the PERT system was handling about 40,000 discrete packages of significant work activities. The detailed logic plans on which these schedules were based were initially worked out over a period of four to five months by PERT experts from each participating stage and support contractor and KSC organizational element.

- more -

- 3 -

This was the input data from which a master overall integrated logic network was devised that took into account the relationships between all of these individual plans---what the engineers call interfaces .

"Obviously with the complexity of a facility of this type," Col. Scheller points out, "you don't try to build everything at once. You have to establish some priority for the things that are necessary to be done first and then work up an orderly sequence of outfitting and checking out the facilities as the need arises for them .

"We set up our system so that we could identify these interface need points and tailored our procurement, construction and checkout plans to meet them. So far it has been quite successful. We have been able to keep the activation schedule in support of launch vehicle requirements ."

An Equipment Record System that keeps track of between 60,000 to 63,000 contract end items was set up in conjunction with the PERT system. The ERS provides up-to-date information on delivery schedules of all equipment required to outfit the launch complex. These anticipated delivery dates are compared by computer with the current "need date" as defined in the PERT system. The computer prints out an exception list of all equipment not expected to be delivered by the date needed .

- more -

- 4 -

For each biweekly PERT Analysis Report the computer also compares progress on the work schedules to the master plan and prints out a list of trouble areas that require special attention.

The Site Activation Board reviews these problems and its 32 members develop "workarounds" where possible--engineering deviations from the original plan that would permit other work to continue. In some cases the workaround turns out to be a permanent solution, working just as well as the original plan or design. In other instances the temporary workaround is replaced with final engineering.

"We've been quite pleased with the PERT system as we've used it here at Launch Complex 39," says Col. Scheller. "It has called to our attention sufficiently far in advance all major planning problems that we have run into later. This permitted us to apply management corrective measures to either forestall completely or lessen the impact of the predicted problem."

While PERT has pinpointed faulty planning, delays in completion of contracts and scheduling conflicts, it cannot predict hardware failure problems, such as the rupture of the liquid oxygen line at Pad A last fall. And no PERT prediction is any better than the estimates put into the system.

- more -

- 5 -

"You only get the accuracy out of the system that you put in originally," Col. Scheller admits. "That's one thing we're particularly proud of. We've been able to evaluate the input data given us and come up with some pretty accurate estimates of time needed to do a task."

The input data has come from the work of 75 to 100 contractor and Civil Service personnel supporting the Site Activation Board, with an additional 75 to 110 Boeing personnel maintaining status display boards and conducting PERT and ERS computer operations and analysis.

The status display boards are about 80 feet long and 35 feet high---about the size of a drive-in movie theater screen. Special magnetic indicators are used to display bar chart schedules, site activation milestones and the master PERT network. Through color coding and numbering the current status of work schedules and equipment deliveries is indicated.

This display dominates the room where the Site Activation Board meets regularly to discuss the information shown. It also serves as a ready reference to the hundreds of contractor and Civil Service people who require daily access to schedules, guiding them in decisions they must make in their own areas to support the activation effort.

- more -

- 6 -

Behind the master display board , in the work area that occupies nearly two-thirds of the firing room, more display panels cover specific supporting schedules in greater detail than the floor-to-ceiling board in the conference room .

"The site activation effort is truly a team effort," Col. Scheller says. "It is a government-industry partnership in every sense of the word. The job is a challenging one, one of the largest construction, outfitting and testing programs that this nation has ever undertaken. It gives these people a real feeling of accomplishment to be a participant in the planning that makes such an activity possible, and it's the direct result of their planning that does make it possible .

"Each individual here has at one time or another been able to see the results of his paperwork exercises save the government time or money in changing plans and working around impacts that otherwise would have occurred had he not been able to participate in identifying and correcting them."

Most of the day-to-day coordination of site activation activities is the responsibility of Lt. Col. R. C. Hall, deputy chief of the office. W. B. Trammell, Saturn V schedule officer with the Program Control Office, manages all PERT and scheduling activities, including analysis of PERT data. According to Col. Scheller, "Trammell is largely responsible for the success of the PERT program."

- more -

- 7 -

Two of three Mobile Launchers, two Transporters, two high bays in the VAB, all of the low bay checkout cells, the crawlerway, one of two launch pads, two control rooms and many support facilities are now operational at Complex 39. The Mobile Service Structure and Pad B are nearing operational status.

The goal of the Site Activation team has been to work themselves right out of a job. The operationally ready launch complex to support the nation's lunar landing program will be achieved on schedule as a result of their dedicated efforts.

- end -

RELEASE NO: KSC-180-67
FOR RELEASE: Immediate

May 12, 1967

FLORIDA FIRMS AWARDED \$32 MILLION
BY SPACE CENTER

KENNEDY SPACE CENTER, Fla. - - Volusia and Brevard County business concerns shared more than \$29,632,000 in contract awards from the Kennedy Space Center during the July 1965-June 1966 period, or approximately 92 percent of the Center's awards in Florida.

Volusia businesses received \$20,581,156 of the Florida total of \$32,000,000, Brevard firms \$9,042,204. Payments of \$11,300,000 were made to the General Electric Company, which elected to receive its payments in Florida, included in the Volusia County total. Payments to the Bendix Corporation were included in the Brevard County total.

KSC awarded contracts to firms in eight other counties, valued at more than \$25,000, as follows: Orange, \$2,390,514; Duval, \$321,383; Putman, \$184,375; Sarasota, \$118,453; Dade, \$75,923; Manatee, \$65,352; Okaloosa, \$38,683; Hillsborough, \$30,400; and Palm Beach, \$27,641.

Small business awards totalled \$8,400,000, approximately 14 percent of the contracts placed in Florida.

- end -

May 19, 1967

RELEASE NO: KSC-181-67
FOR RELEASE: Immediate

EDUCATIONAL INSTITUTIONS
RECEIVED KSC CONTRACTS

KENNEDY SPACE CENTER, Fla. - - Educational and non-profit institutions received \$608,000 in KSC contracts from July 1965 through June 1966.

The largest single contract in this category went to the Southern Research Institute of Birmingham, Alabama. It received \$289,000 for services in operating KSC Materials Analysis Branch laboratories.

Other contracts awarded for studies were for the following:

The University of Miami, \$108,460 for research on the "Investigation of the Toxic Effects of Fluorine"; the University of Florida, \$72,697 for "Post Fireball Behavior of Atmospheric Chemistry of Fuels"; Georgia Institute of Technology, \$24,700 for "Certain Propagation Anomalies in Radio Frequency Signals"; and ITT Research Institute, \$24,960 for "Non-Linear Mixing of RF Signals in Steel at Frequencies Above 30 MC."

For conducting an executive development program for KSC management, the Florida Institute of Continuing University Studies (FICUS) received \$14,868.

- more -

- 2 -

Symposia, tuition, lecture services and educational materials were provided by the University of South Florida in the amount of \$28,360, while \$2,596 was paid to George Washington University.

- end -

RELEASE NO: KSC-252-67
FOR RELEASE: Immediate

May 23, 1967

GOVERNOR-GENERAL OF AUSTRALIA TO VISIT KSC

KENNEDY SPACE CENTER, Fla. - - Lord Richard Gardiner Casey, Governor-General of Australia, and a party of aides will visit the John F. Kennedy Space Center on May 24-25.

The party will include Dr. R. E. Garrod, Defense Research and Development Attache, Embassy of Australia and Lieutenant William Taylor, Aide de Camp, Royal Australian Navy.

The Governor-General will be met on May 24 by Mr. Albert F. Siepert, Deputy Director, John F. Kennedy Space Center, and Major General David M. Jones, Commander, Air Force Eastern Test Range, at the Patrick Air Force Base.

Then the party will tour Cape Kennedy and hear briefings on the Eastern Test Range Control Center and the forthcoming Venus probe.

Following this, the party will tour Complex 39 on Merritt Island, the launch complex for manned lunar landings, and hear briefings on the lunar mission and Saturn/Apollo assembly and checkout operations.

Lord Casey has been Governor-General of Australia since 1965.

-end-

RELEASE NO: KSC-253-67
FOR RELEASE: Immediate

May 23, 1967

NASA TOURS ADDS NEW BUSES

KENNEDY SPACE CENTER, Fla. - - NASA Tours has expanded its fleet of leased tour buses from 24 to 46 to accommodate the throngs of visitors expected to take daily escorted bus tours of the Nation's Spaceport and Cape Kennedy Air Force Station during the remainder of the year.

The addition of 32 suburban-type buses was completed today. Of the 24 used buses in service since the tour program originated, 14 have been retained.

Two of the new suburban buses have side-roof glass panels for better viewing and can seat 53 passengers comfortably. The 30 remaining suburban buses have a seating capacity of 49 each, compared to 39 each for the older types.

The new buses, offering additional comfort and more efficient operation, will be in use by June 1 when the vacation influx of visitors is expected. All NASA tour buses are air-conditioned and equipped for sound commentary.

The escorted bus tours, which are conducted for NASA by Trans World Airlines, began last July 22nd. Since then more than 360,000 persons have toured the launch facilities at the Spaceport and Cape Kennedy. Approximately 600,000 additional visitors are expected to take the tours by the end of the current year. Of this total, more than half are expected during June, July and August.

- end -

RELEASE NO: KSC-251-67
FOR RELEASE: Immediate

May 24, 1967

**COLLEGIANS FILL SUMMER JOBS
AT KENNEDY SPACE CENTER**

KENNEDY SPACE CENTER, Fla. - - Eighty-two collegians and teachers are starting work at the Kennedy Space Center under a summer employment program.

KSC offers the program annually as a means of interesting college people in the Spaceport's work and acquainting high school and faculty members with its operations and goals.

College students who have completed two years of schooling, graduate students who are going on to graduate schools or into the teaching profession and high school and college faculty members will be employed, said Charles Francois, KSC summer employment coordinator.

The two year students take written examinations through the Inter-Agency Board of Civil Service Examiners in Orlando, Florida, in competition for the available positions. Then the top scorers are selected by the KSC personnel office.

- more -

- 2 -

The graduate students apply directly to KSC and are selected by the personnel office according to their qualifications .

College students perform routine clerical tasks and work as engineering aides . The faculty members work in areas that are aligned with their teaching curricula .

During the summer program , the employees are given training courses by KSC and are counseled by their supervisors regularly on their progress and performance . At the end of the program , each employee rates his job and he is evaluated by his supervisor .

Some students are returning to the Center . Suzanne Meyer will be spending her third summer in clerical work at KSC , in the Legal Office . She will be a senior at the University of Florida this fall .

She feels her work at KSC has been very helpful . "Next to college , its been the most worthwhile experience in my life . Besides , working at the Spaceport is exciting . I would like to work for the government in some capacity with the space program if possible after graduation ."

George Clark , who will also be a senior at the University of Florida , has worked with NASA at KSC before . This will be his second summer in the Reliability and Quality Assurance office .

- more -

- 3 -

He will be assisting in tracking down corrective action in failure reports on the Apollo/Saturn V rocket .

An electrical engineering major , he says , "this will be extremely helpful in my engineering studies because it will give me an inside view of engineering and the Saturn V program , and because I would like very much to be in the space program after I finish military service ."

Frank Marucci who will be a senior at Florida Atlantic University in Boca Raton will be spending his first summer at KSC .

He is working in the accounting department of the financial analysis section on cost records , helping accountants keep records , charts and graphs .

"I think it will be good experience for any type of work either governmental or private" , he says . "I can gain a lot of good viewpoints about business in general and specifically at the governmental level ."

- end -

RELEASE NO: KSC-249-67

FOR RELEASE: Immediate

May 24, 1967

MAY 25 IMPORTANT DATE
IN SPACEPORT'S HISTORY

KENNEDY SPACE CENTER, Fla. -- May 25th is a uniquely important date in NASA's short but dynamic history.

It was on this day six years ago that the late President John F. Kennedy charted the nation's future in space by declaring a national goal of landing men on the lunar surface and returning them safely to earth.

"Now is the time to take longer strides -- time for a great new 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," he said.

At the Kennedy Space Center, May 25, 1966 was an important milestone: a full-sized facilities model of the Apollo/Saturn V rocket that will one day fulfill Kennedy's goal of landing astronauts on the Moon was transported with its mobile launcher atop the transporter from the Vehicle Assembly Building to Pad A at Launch Complex 39. The dramatic move proved the complete feasibility of the mobile launch concept.

- more -

- 2 -

On May 25, 1965, the eighth Saturn I rocket, SA-8, was successfully launched from Complex 37, sending a 23,000 pound payload into orbit, including the Pegasus II meteoroid detection satellite.

And, in addition to the rollout of the Saturn V last year, KSC successfully launched Explorer 23 atop a Delta on May 25, 1966. It was designed to investigate temperatures, composition, densities and pressure in the upper atmosphere.

- end -



2A.2, # 43

news release

RELEASE NO: KSC-250-67
FOR RELEASE: Immediate

May 24, 1967

ZEMAN SUPPORTS LAUNCH OPERATIONS

KENNEDY SPACE CENTER, Fla. - - With the flick of a switch in the Unmanned Launch Operations Mission Director's Center, John Zeman is in instant touch with NASA tracking stations world-wide, establishing the plan of action for a future launch.

It is a routine duty for this calm veteran of almost 100 launches from NASA pads on Cape Kennedy.

It's Zeman job as head of the Operations Support Section to "coordinate the communications and data distribution effort" for unmanned launches here. He displays which tracking stations will be operational, when they will track, and determines how data will be transmitted from KSC to the various Centers.

These and 100 similar requirements face the head of operations support before each unmanned launch conducted by KSC. And this is just part of the job for Zeman. In a larger sense he assists in assuring that launch requirements and mission operations mesh.

- more -

- 2 -

When the countdown begins for an unmanned launch, such as Surveyor, or a scientific satellite, Zeman mans a console in the Mission Director Center on the Cape. He wears a second hat at launch time when he becomes the control center operations manager.

Prior to launch day, Zeman has programmed consoles in the center, located in Hangar AE, to support the mission. There have been "dry runs" of mission requirements including tracking and data acquisition.

"I make sure that adequate information is available...that a capability exists upon which to base decisions," says Zeman.

He works from a console next to that of the mission director, where he is instantly available to all members of the staff in the Mission Director Center. Zeman reports to the Chief of Technical Support Operation Branch, but during launch operations he becomes a key member of the Unmanned Launch Operations team.

The countdown proceeds on schedule when, suddenly, there is a hold. The malfunction is not serious enough to scrub the launch itself but could affect the final outcome of the mission.

A decision must be made!

- more -

- 3 -

Zeman helps detail all of the "options" to members of the mission control team, including a worried scientist whose experiments are sitting atop a smoking ready-to-launch rocket.

Zeman recalls the harrowing experience of one scientist at liftoff.

"The TV monitor did not have a mask around it during this particular launch," Zeman said, "and from the scientist's angle the vehicle appeared to climb over the top of the TV tube and start down toward the ground.

"I turned to say something to the scientist and found that he had fainted. Now, every monitor has a mask around it."

Zeman qualifies as a genuine old timer in the space agency. His NASA employee number was 68.

A native of Little Falls, N. Y., he received his formal education at Alfred University and the University of Buffalo. He was working for an aerospace contractor when he came to Florida in 1957 to participate in the Vanguard project. He joined the government that same year, stayed on to become a member of the KSC staff.

Zeman has participated in almost every unmanned launch conducted by KSC. His wide-ranging experience led to an appointment as head of operations support section in 1965.

- more -

- 4 -

Cocoa Beach is home for Zeman, his wife, Lucille, and their two daughters. One Zeman activity, "working around the house," recently added up to a major remodeling job which included a 900-square-foot addition to the family residence. Boating and fishing are other sparetime pursuits.

Zeman looks for unmanned launch operations at KSC to continue at "a high level" in the future.

"Launches will grow more complex," he believes, "but this complexity will be matched by an increased understanding and ability on our part.

"The next decade will be very exciting," he says. That's the way John Zeman likes it.

- end -

RELEASE NO: KSC-258-67
FOR RELEASE: Immediate

May 26, 1967

**FISH RELOCATED AT SPACEPORT
IN LIFE-SAVING MOVE**

KENNEDY SPACE CENTER, Fla. - - Barrels of game fish are being netted from canals and ponds on the Kennedy Space Center in an effort to save them as drought conditions worsen in the area.

Bass, bluegills, shell crackers, and speckled perch are being taken by dip nets from dwindling ponds and canals and transferred to deeper water in borrow pits and in the Center's mosquito control areas.

Harrell W. Cunningham, Chief of Roads and Grounds for the Center, said that fish in the warm, muddy waters were dying by the hundreds from oxygen starvation. As the water becomes more shallow and stagnant, he explained, the movement of the fish stirs up silt and sand which clog their gills. To alleviate this condition and to give the crews time to net the fish before they die, fresher water is being pumped from deeper canals and borrow pits into those areas where conditions are worst.

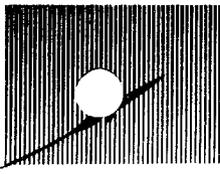
- more -

- 2 -

Cunningham explained a secondary drought-connected problem that is developing. Minnows put into the Center's waters to feed on mosquito larvae are dying rapidly. The larvae, however, are highly resistant and can survive in the mud until the rains come. Rising water can be expected to cause the development of clouds of mosquitos, he said.

- end -

KSC



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #44

RELEASE NO: KSC-263-67
FOR RELEASE: Immediate

June 7, 1967

POWER SYSTEMS EXPAND AT SPACEPORT

KENNEDY SPACE CENTER, FLA. - - A modern, expanding electrical power distribution system keeps pace with the growth of launch and industrial facilities at Kennedy Space Center.

A major modification occurred this month when the Spaceport's operating voltage was raised from 69 kilovolts to 115 kv.

The language of electricity on a large scale--kilovolts, kilowatts--can seem rather high-powered and complex. In effect, 115 kv is "transmission voltage" of the magnitude required to service a large aerospace complex like the Spaceport.

"The higher voltage was needed to sustain launch operations at Complex 39," said Richard F. Reddy, chief of the Power Systems Function at KSC. "Additionally, power requirements in the industrial area are growing."

- more -

Engineers foresaw the requirement for extra power while the Center was still under construction. Substations in the industrial area and at Complex 39 were equipped at that time to handle a 115 kv load. Thus, the May changeover to the higher voltage was made with relative ease.

Reddy explained that KSC is part of a five-substation "closed loop" power system which also serves Cape Kennedy. The closed loop system became fully operational last December.

Power is supplied from the Florida Power and Light Company system at the company's plant located off U. S. Highway 1 between Titusville and Cocoa. The local power plant is linked to others in the state, comprising an extensive back-up capability and assuring a continuous supply of power to the Spaceport.

Launch operations here are dependent upon electricity for checkout, to operate computers, communications equipment and many other systems from the launch control center to the launch vehicle and spacecraft.

"A prolonged power failure could endanger a space mission," Reddy said. "The closed loop system is insurance against such failure."

- 3 -

It works like this:

Imagine five substations in a straight line, all connected to a generating plant. If there is a break in the line, it is total.

But if the line is looped and closed, beginning and ending at the generating plant, then power can be routed two ways. Should there be a break in the line, power is routed through the other side of the loop.

The new closed loop system augments a network of redundant lines and on-site generators which are on standby for all launches. In the unlikely event of multiple power failure, on-site generators would protect vital systems until power is restored.

Another improvement in the works, according to Reddy, is a remote control and monitoring system for Complex 39.

"Just before a launch the pad area will be unmanned for safety reasons." Reddy said. Should there be a failure in the pad area at this critical time, an operator at a remote site routes power along alternate lines. In this case, the remote control and monitoring system will be operated from the LC-39 substation dispatcher's office near the Vehicle Assembly Building.

- more -

- 4 -

These are only a few of the modifications and improvements to the KSC power system now underway or in the planning stage. There are many others.

"Our aim is early, sound planning for future needs," Reddy declared. "So far we have been successful."

Reddy heads a four-man group of electrical engineers which supervises the design and development of power distribution at the Spaceport. Among the responsibilities of his office are generation, transmission and utilization of the electricity so vital to Spaceport operations.

Such operations, in addition to checkout and launch of space vehicles, include power for air conditioning, lighting, computers, calculators, electrical typewriters, and a thousand other uses.

"On a monthly basis," Reddy calculated, "the Spaceport consumes about as much electricity as a city of 40,000." Last month, for example, the consumption figure at KSC was 21 million kilowatt hours.

Reddy pointed out that Cape launch facilities were originally served by 13.2 kv feeder system extended from Cocoa Beach. Then a single substation was added.

- more -

- 5 -

Power consumption went up as new launch complexes were built, and as KSC was constructed. Today the Spaceport is spanned by more than 100 miles of 13.2 kv high voltage cable.

The chief of the Power Systems Function expects power consumption to rise in the future, as pads A and B at Complex 39 become active and new facilities are completed in the industrial area.

"Forecasts of future load growth at KSC and the Cape indicate an increase from a 78,000 kilowatt demand in 1966 to more than 100,000 kilowatts during the next five years."

Reddy's office already has plans for meeting this anticipated increase.

- end -

RELEASE NO: KSC-262-67
FOR RELEASE: Immediate

June 7, 1967

KSC EMPLOYEE WINS
SLOAN FELLOWSHIP

KENNEDY SPACE CENTER, Fla. -- Hugh (Gene) McCoy has been selected to study under a Sloan Fellowship at Stanford University in Palo Alto, California.

He heads the Kennedy Space Center Apollo Spacecraft Office, a staff organization which integrates Center-wide spacecraft activities.

McCoy, who arrived in Brevard County in 1960, the same day as the first Mercury-Redstone rocket, is the second NASA employee at the Center to win a Sloan award. Walt Barney, Chief, Information Systems Planning and Technical Support Office, was the previous recipient in 1963. His year of study was at the Massachusetts Institute of Technology.

"I am honored to be afforded this opportunity," said McCoy. "And the family will get a chance to enjoy California. We will be there almost a year."

The class of young executives for this highly regarded course is drawn from nations throughout the world. The nine-month curriculum is devoted primarily to business and management.

- more -

McCoy explained that his office is primarily a business and planning operation, that "knowledge gained as a Sloan Fellow will be most useful" when he returns to the Spaceport.

The fast-paced job he leaves is one which keeps McCoy and his staff of 20 on the move--literally. "Part of our function is to deal with other NASA centers, with the Office of Manned Space Flight at NASA Headquarters, and with Apollo contractors concerning program planning and scheduling."

In his spare time, McCoy "enjoys boating" with his wife, Sandra, and their three children in Indian Harbor Beach.

McCoy is a native of Bishopville, S. C. His civil engineering degree is from Clemson University, where he graduated in 1954.

RELEASE NO: KSC-266-67
FOR RELEASE: Immediate

June 7, 1967

KSC LAUNCH ENGINEER
COMPARES MARINER FLIGHTS

KENNEDY SPACE CENTER, Fla. - - The Atlas-Agena launch vehicle for the upcoming Mariner Venus 67 flight is essentially the same type, with minor technical refinements, as the rocket used for the Mars-Mariner mission in 1964.

Launch of the 540-pound spacecraft, on a four-month-long flight to Venus, is planned for June 14.

Primary objective of the mission is to obtain scientific information on the origin and nature of Venus and its environment.

"Burn time of the Atlas and the first burn of the Agena will be about the same," says Harold Zweigbaum assistant launch director for KSC's Unmanned Launch Operations.

Zweigbaum, who also served on the earlier Mariner mission, said the main difference this time will be the stocking here of extra parts, both for the launch vehicle and the spacecraft.

- more -

- 2 -

"The Venus attempt can only be made every 19 months, so we don't want to come up short on the launch window if a component fails," Zweigbaum explained.

"We've run a number of extra tests because of these backup systems, and that's about the only major difference from the last flight."

The entire ULO crew, from launch director Robert H. Gray on down, with the exception of possibly one or two members, is the same as it was for the Mars flyby flight nearly three years ago.

Zweigbaum said there has been many changes in the launch vehicle and in the checkout operations since the original Mariner Venus liftoff in August 1962. That spacecraft passed within 21,000 miles of the Earth's sister planet. The 67 flyby is to reach within 2,000 miles of Venus.

"It was basically an Air Force directed flight then," Zweigbaum said. "We're flying a different model Atlas and Agena now, and, of course, our countdown is in a totally different format.

"The Atlas has been made into a standardized space launch vehicle since then."

- end -

RELEASE NO: KSC-267-67
FOR RELEASE: Immediate

June 7, 1967

**SCIENCE FAIR AWARD WINNER
TOURS SPACEPORT**

KENNEDY SPACE CENTER, Fla. - - A Georgia high school youth who won his state's Grand Prize in Physical Science toured the Spaceport and Cape Kennedy today as guests of the Kennedy Space Center.

The student, William O. (Bill) Inman, III, of Glynn Academy, Brunswick, Georgia, was accompanied on the tour by Jimmy Adams, chairman of the Academy's science department.

Inman's winning exhibit at the Georgia State Science Fair was a project concerning an analysis of radio signals from the planet Jupiter. His work was also exhibited at the International Science Fair in San Francisco.

For both Inman and Adams, the high point of the tour was a first-hand look at the Center's complex telemetry facilities.

The tour was arranged through the Center's Education Office by Harold Johnson of KSC's Telemetry Branch who attended Glynn Academy and who has retained an active interest in the school's science program.

-end-

RELEASE NO: KSC-281-67

FOR RELEASE: Immediate

June 21, 1967

**NEW MEXICO STUDENTS "OLD"
SPACE HANDS AT KSC**

KENNEDY SPACE CENTER, Fla. -- For most engineering students, a chance to work in launch operations at the Kennedy Space Center is something to hope for after graduation. Some, however, like Gary Lindsey, Robert Jensen, Don Bratton and Louis Downey, will be "old" hands at the space business by the time they graduate.

The four -- all co-op students from New Mexico State University -- are supplementing their engineering studies with actual experience in the construction, checkout and operation of complex electronic equipment used in Unmanned Launch Operations programs at the Center.

The equipment is utilized for vehicle and spacecraft checkout in the Centaur, Delta and Atlas-Agena programs.

-more-

The students are here under a cooperative work-study program between the Center and NMSU's Physical Science Laboratory which is engaged in research and development in the field of engineering.

The lab was established simultaneously in 1946 with the White Sands Missile Range in New Mexico. The main lab is located on the University's campus at Las Cruces.

In addition to the co-ops assigned at KSC, the lab has similar programs underway in Greenland, Samoa, Brazil, Seychelles, Philippines, Alaska, Japan, Hawaii and other remote locations.

To be eligible as a co-op, a student must have a 2.4 (B-) grade average. He must maintain a 2.2 grade average to remain in the program and is required to work two semesters on a field assignment and return to school for two semesters.

During the four-year program, a major portion of the co-op's salary is banked and not released to him until he returns to school, assuring him adequate finances to complete his study phase.

Lindsey, who is now a senior at NMSU, will complete his last work phase in September. He has maintained a 3.7 (A-) grade average out of a possible 4.0 during the entire program.

Said Lindsey: "The co-op program has proven to be an ideal way for me to get through college for several reasons.

"First, I do not have to worry about being a financial burden to my parents. Second, I am gaining valuable experience which will help me in my work after graduation.

"And finally, I am meeting new people and learning how to get along with them. The co-op program may take longer to complete, but who could ask for more?"

Bratton, now on his first work phase, echoed Lindsey's sentiments. "The co-op program has provided many interesting and exciting opportunities. I have been able to make many new friends.

"I also have gained valuable experience while earning money to continue my education. It is my opinion that this experience is well worth the one or two extra years required to obtain a degree."

The students work at the Center under the supervision of KSC's Skip Mackey, manager of the ULO Telemetry Station. Tom Noda serves as manager of the NMSU's Physical Science Laboratory field station here.

RELEASE NO: KSC-282-67

FOR RELEASE: Immediate

June 21, 1967

**RESPONSE OVERWHELMING FOR
SUMMER WORKSHOP PROGRAM**

KENNEDY SPACE CENTER, Fla. -- A summer workshop program for teachers is receiving "an overwhelming response", according to Kennedy Space Center Education Officer Hal Mehrens.

"We could triple our staff and still not be able to schedule all the sessions people would like to have."

The Education Office has developed specific workshop programs sought by the host colleges and universities. Sessions will be held in some cases just for physics teachers, others only for teachers of chemistry. Some will be limited to elementary school teachers, and several are planned for teachers of technical subjects.

-more-

"We have found," Mehrens said, "that we no longer need to convince the public that the exploration of space is desirable. The results of these early years of our national space program are now widely known. Our theme for these summer workshops relates the space program to 'Man and his Quest For Knowledge'."

About thirty teacher conferences will be conducted here this summer in addition to a full schedule of workshops in Georgia, Florida and Puerto Rico. The KSC sessions will usually be one-day affairs, with a few two-day conferences as well. A primary objective is to reach the men and women who are preparing for a teaching career and furnish them the information and techniques they can use in the classroom to incorporate Space Age knowledge in every portion of the curriculum.

Space Science Lecture Demonstration tours of the Spaceport will continue during the summer for students of summer schools and special project classes. Groups from as far away as Houston, Texas have scheduled participation in this program during the summer.

About 4,000 students a month toured the space center and heard a special lecture demonstration on space science during the school year just ended. The number taking advantage of the program is expected to increase sharply starting in the fall.

RELEASE NO: KSC-284-67

FOR RELEASE: Immediate

June 21, 1967

400,000th VISITOR

KENNEDY SPACE CENTER, Fla. -- NASA Tours greeted its 400,000th visitor this morning (June 21), eleven months after the daily Spaceport bus tours were inaugurated.

Ed Lupton, 36, of Willow Grove, Pa. was presented a large color photograph of the Vehicle Assembly Building, autographed by Center Director Dr. Kurt H. Debus, to commemorate his purchase of the milestone ticket. Lupton is Plant Engineer at the Jefferson Medical Center in Philadelphia.

His wife, Shirley, is a school teacher at the Woodlawn Elementary School in Willow Grove. Mrs. Lupton and their two children Dennis, 13, and Betsy, 11, expect to make good use of their visit to Cape Kennedy's historic launch sites and the Moonport in their school classwork next fall.

-more-

-2-

Lupton discovered he was visitor number 400,000 as he was purchasing his tickets at the tour terminal located at the main entrance to the Space Center two miles south of Titusville, just off U.S. 1. Byron Jackson, manager of NASA Tours for Trans World Airlines, the contractor operator, welcomed the Luptons. W. P. Murphy, Jr., chief, KSC executive staff, presented the photograph to the family.

The escorted bus tours began July 22, 1966 and have attracted visitors from every state and more than 50 foreign countries. The National Park Service has predicted as many as three million persons will be visiting the Space Center each year by 1970.

Air conditioned buses take visitors to the launch area where America's astronauts will lift off on their historic flights to the Moon, to the control center used in the Mercury and early Gemini flights, and past the launch pads for manned and unmanned exploration of space.

-end-

RELEASE NO: KSC-298-67
FOR RELEASE: Immediate

June 28, 1967

KSC DISCUSSES CONTRACT TRANSITION

KENNEDY SPACE CENTER, Fla. -- Senior officials of NASA and two contracting organizations met today to discuss the phase-in period during which Federal Electric Corporation will gradually assume communications and additional computation support for the John F. Kennedy Space Center, NASA.

RCA Service Company, a division of Radio Corporation of America, began this week interviewing its personnel to determine their interest in remaining with the firm or joining FEC, whose expanded mission will absorb the type functions previously performed for NASA by RCA Service Company.

Deputy Center Director A. F. Siepert and Raymond L. Clark, Director of Technical Support for the Center, discussed arrangements with R. C. Pittman, senior vice president, FEC and Denton Clark, project manager of RCA Service Company.

-more-

KSC-298-67

The new contract awarded by NASA to FEC becomes effective July 1. The RCA contract has been extended to cover the transition period which is scheduled to take place within 45 to 60 days after July 1.

The two firms are working out with Mr. R. L. Clark the phase-in of contract responsibilities on a system by system basis. FEC and RCA are making arrangements for employment by FEC of those RCA personnel desiring to transfer. Transfer of employees will be accomplished without any break in employment.

Mr. Pittman and Mr. Denton Clark stated that their companies want to effect the transition with "minimum impact upon the individuals concerned and community."

A sub-contracting firm to Ling-Temco-Vought, Computer Applications, Inc., is also involved in the phase-over. CAI employees will likewise be interviewed for possible employment with FEC.

The Center anticipates that total employment in the consolidated contract will increase from approximately 1,470 now working here for RCA, FEC and CAI, to somewhat more than 1,500 in the next few months.

KSC-298-67

RCA's Denton Clark pointed out "RCA is actively pursuing all possibilities for those employees who are desirous of remaining with RCA. RCA will stand ready to cooperate with NASA and FEC in releasing any of its KSC people who desire to discuss employment possibilities with FEC."

Mr. Pitman stated "FEC as a company who has been doing business in the Cape Kennedy area for the past seven years has a strong interest in doing whatever it can to promote the stability of the local economy. It is FEC's desire to employ all qualified RCA and CAI incumbent personnel who desire to remain on the project."

-End-

RELEASE NO: KSC-303-67

FOR RELEASE: Immediate

July 1, 1967

NASA TOUR ATTENDANCE

KENNEDY SPACE CENTER, Fla. -- NASA Tour attendance during June was the third highest in the 11 months since the daily bus tours began July 22, 1966.

Over 420,000 persons have toured to date including residents of the 50 States and many foreign countries.

The June total of 55,000 compares with 25,284 in May; 34,390 in April and 60,765 in March. The latter was the largest monthly attendance thus far recorded.

Trans World Airlines, which operates the tours for NASA, reported 1,220 student visitors in June, bringing the 11-months total of this category to 31,785.

Average daily attendance increased from 816 in May to approximately 1,800 in June.

###

RELEASE NO: KSC-305-67
FOR RELEASE: Immediate

July 5, 1967

COMPLEX 39 LAUNCH CONTROL CENTER
READY FOR FIRST SATURN V FLIGHT

KENNEDY SPACE CENTER, Fla. - - When the final countdown on Apollo/Saturn V vehicle 501 begins this fall, between 400 and 500 engineers, managers, technicians and specialists will directly participate in Firing Room One at Complex 39's Launch Control Center.

This is the "blockhouse" for the first Apollo/Saturn V flight. It is one of four firing rooms in the LCC. Two are completely outfitted, a third is in the process of being equipped, and the fourth is presently being used as a master control room for Launch Operations and further site activation.

Unlike the circular, concrete and steel blockhouses that dot Cape Kennedy, Firing Room One is a long rectangular area.

The east end of the room faces 39 launch pads A and B, three and a half miles away. Large windows will allow the launch crew to see the rocket during the early phases of flight - - a favor denied them in the past.

"Actually, there aren't too many differences in our operations here and in the blockhouses at the Cape," says Jim Harrington, who will be test supervisor for the second Saturn V launch.

- more -

- 2 -

"This is just a lot bigger room. We have another stage to check out, and there will be more people."

Behind the windows are four rows of electronic consoles in tiers facing west. On the main floor are five or more rows of consoles and behind these are eight rows of measuring recorder racks.

In all, there are 218 individual console positions and 238 separate measurement racks.

There are 10 consoles in the top row, nearest the windows. It is here the Center director, launch director, launch vehicle director and spacecraft director will sit, along with the director of technical support, program manager, and Air Force Eastern Test Range representative. The public information officer will also have a position in this row.

The next line down will be the top operational one. Here, the space vehicle test supervisor and launch operations manager will be flanked by KSC launch vehicle and spacecraft test conductors.

In front of them will be consoles occupied by the contractor stage test conductors, plus positions on the right will include astronaut communicators and aeromedical personnel -- for manned Apollo/Saturn V flights.

- more -

- 3 -

Pad safety, range safety, flight dynamics, technical commentary, data display controls, and instrumentation controller are among the functions that will be fulfilled by personnel manning the fourth row of consoles.

Rundown on the five rows on the main floor is as follows:

- - First: first and second stage propulsion and networks.
- - Second: third stage propulsion and networks and instrument unit networks.
- - Third: stability and guidance and umbilical swing arms.
- - Fourth: flight control and mechanical ground support equipment.
- - Fifth: measurement and radio frequency and propellents.

The eight rows of instrumentation or measurement racks that extend to the end of the firing room will record various ground functions, such as liquid oxygen line pressure, flow rate, pump bearing temperature, and other items for each stage of the space vehicle.

High over the fifth row of consoles are four large visual displays.

Test supervisors, test conductors, and systems engineers can see many kinds of data displayed. This data can come from the launch vehicle and ground support equipment during pre-launch tests and launch. Trajectory and vehicle data can be displayed in the post-launch period.

- more -

- 4 -

The data can be displayed in alpha numeric listings, graphs, real-time plots, and many other forms. It is also possible to flash closed circuit television scenes from any of the dozens of TV cameras throughout Complex 39.

To the left of these screens is a large Functional Event Display, tied in through electrical networks. This lists 47 key countdown milestones and major post-liftoff events.

When such items as "IU ready" and "first stage fuel tank pressurized" are passed in the count, a green light will flash in the appropriate place on this board. There is a similar board and system on the right side of the firing room for additional milestones and events.

Scattered throughout the room are large countdown clocks, which will wink off seconds in Eastern Daylight and Greenwich Mean Time. There are also clocks for indicating the precise liftoff time and for recording hold time.

At the southwest corner of the firing room is a large glass-paneled viewing area. VIP's will sit here during launch countdowns. Opposite this is an operations management room.

There will be 112 different communications channels available to key operations personnel during major tests in the firing room. This is nearly triple the number used on uprated Saturn I launches at Complex 34.

- more -

- 5 -

The need for additional channels stems from the fact there are more people in "the loop," more stages, and more support contractor personnel.

Midway down each side of the firing room is a bank of nine television monitors, which will display any number of distance and closeup scenes of the rocket and spacecraft.

In back of the measurement racks is a separate room. RCA 110A computer equipment -- the automatic checkout heart of launch vehicle countdown operations -- is housed here.

The computer communicates with another one at the pad, located on the mobile launcher. Data transmission is by coaxial cable, and includes such key functions as stage power turn-on, telemetry transmitters, etc.

Each individual console is a literal maze of lights, buttons, dials, switches, gauges, panels and phones. Some are equipped with tiny TV monitors.

One of the most interesting consoles is in the first row of the main floor. It will be manned by a Boeing employee. Boeing is a contractor for the S-IC booster stage of the Saturn V.

On this console is a red firing command switch. At T-three minutes, 10 seconds in the countdown, he will activate this switch, placing the remainder of the count on automatic sequence.

- more -

- 6 -

Once this command is issued, the count can still be stopped by either automatic or, if necessary, manual cutoff. This console also contains the manual cutoff switch.

This essentially, is the physical makeup of a Saturn V firing room. Number one, currently active with a series of checkout tests on the first Saturn V, will reach its crescendo of activity one day this fall when several hundred launch team members man the consoles and racks of equipment during the initial countdown for America's lunar landing launch vehicle.

- end -

RELEASE NO: KSC-306-67
FOR RELEASE: Immediate

July 5, 1967

**FOUND: ONE ROCKET -
SLIGHTLY USED**

KENNEDY SPACE CENTER, Fla. -- The letter came addressed to "Recovery of Pieces Division, Cape Kennedy."

It eventually wound up in the hands of Robert H. Gray, director of the Kennedy Space Center's Unmanned Launch Operations.

It was from a lady, Ruth E. Mort of Rochester, New York.

Miss Mort, while vacationing on Harbour Island in the Bahamas, came upon a strange metallic object just offshore while strolling on the beach one morning.

"It was possibly 10 feet long, had the whole word 'United' in black on one end and 'destruct mechanism here' on the other end," she wrote. Miss Mort believed it to be a piece of a rocket.

"It does not appear to be burned, just broken. Whether this piece is important to you or not, I thought it best to let you know." She then described exactly where the large piece of metal could be located.

-more-

Since Harbour Island was only 25 miles from the Air Force Eastern Test Range station of Eleuthera, it was no major problem to have it picked up and flown back to the Cape.

"We have determined that the part was an insulation panel from Centaur No. 9 launched last October 26," Gray wrote Miss Mort after receiving the piece. "Since we were interested in determining that the separation system had functioned properly and that there were no other abnormalities with the assembly, we had it flown back to the Cape for inspection."

Gray explained that Centaur 9 was a very successful flight that placed a model Surveyor spacecraft into a simulated lunar transfer trajectory. It was, in fact, this nation's first two-burn flight of a liquid oxygen-liquid hydrogen stage.

He further told her that the recovered piece was one of four used as protective insulation around the second stage tanks of the Centaur, and that those are separated at an altitude of 60 miles -- once the rocket has gone through the zone of maximum aerodynamic heating.

Gray estimated the panel landed in the ocean about 575 miles from Cape and 280 miles east-northeast of Harbour Island.

Enclosed in his letter were photographs of the Centaur rocket and several closeup moon shots taken by Surveyors.

"We appreciate your interest and your willingness to take the time to write us concerning this part," Gray said. "Assemblies of this nature can be of extreme importance to us in the event of any abnormal performance."

-end-

RELEASE NO: KSC-307-67

FOR RELEASE: Immediate

July 5, 1967

KSC TOPS BOND DRIVE GOAL

KENNEDY SPACE CENTER, Fla. -- Once again the Kennedy Space Center has topped its goal for the annual U. S. Savings Bond Campaign. The figures for this year's drive, released last Monday, show that KSC employees responded with 92 per cent participation.

George A. Van Staden, KSC bond drive chairman, expressed his appreciation to all participating Civil Service personnel for helping the Center over the top.

"It would not have been possible without the unqualified support of solicitors, management personnel and the cooperation of all employees at the Center," he said.

"This means that KSC will be able to retain the Minuteman Flag for another year."

The Minuteman Flag is awarded by the Treasury Department to government and private institutions that annually reach 90 per cent employee participation in the savings bond campaign.

Center Director Dr. Kurt H. Debus is 1967 chairman of the overall Brevard County bond drive. His coordinator for the drive, public affairs specialist John Donovan, had this word of praise:

- more -

- 2 -

"On behalf of Dr. Debus, I would like to thank everyone - - Civil Service and contractor - - for their enthusiastic response. This is the best year we've had yet for the Savings Bond campaign."

This year's drive began on May 15 and ended last Friday. Here's the final breakdown and percentage figure for KSC elements:

Director, 100%; Public Affairs, 100%; Executive Staff, 100%; Apollo Program Office, 93%; Quality Assurance, 100%; Chief Counsel, 92%; Administration, 90%; Design Engineering, 91%; Launch Operations, 92%; Launch Vehicle Operations, 90%; Spacecraft Operations, 95%; Unmanned Launch Operations, 97%; Technical Support, 91%; Information Systems, 94%; Support Operations, 90%; Installation Support, 88%; Daytona Beach Operations, 87%; and Apollo Applications, 72%.

- end -

RELEASE NO: KSC-313-67

FOR RELEASE: Immediate

July 19, 1967

VIP'S TO SPEAK

AT VIC OPENING

KENNEDY SPACE CENTER, Fla. -- The Kennedy Space Center's new Visitor Information Center will be officially opened Tuesday, August 1, at formal ceremonies to be hosted by Center Director Dr. Kurt H. Debus.

Guest speakers may include two Florida members of Congress -- Senator Spessard Holland and Representative Ed Gurney -- and Dr. Robert C. Seamans, Deputy NASA Administrator.

About 350 VIPs, NASA, KSC, Air Force Eastern Test Range, NASA contractor representatives and members of the press are expected to attend.

Representative George Miller (D-Cal), chairman of the House Space Committee, and Olin Teague (D-Tex), chairman of the House Subcommittee on Manned Space Flight, have been invited to attend the ceremonies.

Dr. George Mueller, Associate NASA Administrator for Manned Space Flight, may also attend.

- more -

Major General David M. Jones, Commander of the Air Force Eastern Test Range, will be among the distinguished guests, along with managers of prime KSC contractors.

There will be a tour of VIC facilities following the opening ceremonies.

A tour of the Spaceport will then be offered any guests who desire it.

The Spaceport story will be told at the VIC through graphic displays and exhibits, models, photographs and films.

The 42-acre complex consists of two main buildings separated by a portico. Displayed on the grounds will be models of the Apollo Lunar Module and Mercury and Gemini spacecraft.

The primary exhibit building will have two theaters, two arcades and a picture gallery. Each theater will accommodate 240 persons.

Around the walls of the arcades, visitors will see displays depicting the development of rockets and will view examples of NASA's unmanned and manned spacecraft.

In the second building, visitors may purchase bus tour tickets. There will also be a snack bar and souvenir facilities, along with additional exhibits.

On Wednesday morning, August 2, an open house will be held at the VIC for Brevard County and area leaders, including local mayors, county commissioners and chamber of commerce leaders. They may also take a tour of the Spaceport if they desire.

-end-

RELEASE NO: KSC-314-67
FOR RELEASE: Immediate

July 19, 1967

BLACK NAMED CHAIRMAN OF
EXCHANGE COUNCIL

KENNEDY SPACE CENTER, Fla. - - Dugald O. Black was installed last week as new chairman of the NASA-Exchange Council-KSC, succeeding Lewis E. Melton, who becomes vice chairman.

At installation of officer ceremonies, Earl Ford became secretary-treasurer, with James C. Stanley as vice, and John H. Hardy is the new alternate secretary-treasurer, with Earl G. Ford, Jr., vice.

Other members and officials of the Exchange Council are: John E. Thomas, supervisor; and members Thomas M. Davis, Walter F. Barney and Charles Hibbard.

Alternate members are Steward L. Carse, Joe R. Smith, and Herman Baum.

-end-

RELEASE NO: KSC-315-67

FOR RELEASE: Immediate

July 19, 1967

TOUR PLANNING BEGAN
YEARS AGO

KENNEDY SPACE CENTER, Fla.-- Story behind the story on the Kennedy Space Center escorted bus tours -- which began a year ago this Saturday -- is nearly as interesting as the Spaceport attractions themselves.

As early as 1963, Center Director Dr. Kurt H. Debus foresaw the potential benefits of allowing visitors to view this nation's only operational Spaceport, then in its early construction stage.

He had reviewed traffic studies which showed 10 million vehicles a year traveling across Florida highways adjacent to the Center, and he felt by giving the public an opportunity to see the launch sites and facilities, they would have a better understanding of the country's space programs.

Congressmen, among them House Space Committee members Olin Teague (D-Tex), Walter Rhielmann (R-NY) and Edward Gurney (R-Fla) shared Dr. Debus' beliefs.

-more-

- 2 -

Late in 1963, Teague wrote to NASA Administrator James E. Webb expressing the awareness of the public interest in the Spaceport, and asking what plans were being made to accommodate visitors.

At KSC, special group tours had already been inaugurated, and plans for escorted public bus tours had been started.

In 1964, meetings were held between NASA representatives and members of the National Park Service, a federal agency long experienced in the operation of tours and in dealing with public tours.

The National Park Service, after an extensive study at KSC, made a 100-page report that became the basis of Center tour planning.

They recommended escorted tours of the Spaceport and the construction of a Visitor Information Center. Park statisticians forecast one million visitors the first year the VIC would be open, and up to three million visitors annually by 1970.

Meanwhile, KSC gained valuable experience on the public's interest in space through the drive through tours that were begun in 1965 -- on weekends and holidays.

When more than 33,000 people drove through the Center over Christmas 1965 holiday weekend, it was decided to begin the escorted bus tours as soon as possible, to relieve the weekend pressure.

In April 1966, Deputy KSC Director Albert F. Siefert briefed Deputy NASA Administrator Dr. Robert C. Seamans on the situation, and asked for authorization to use the KSC contract with Trans World Airlines, which has a provision for operation of the bus tours.

Fifteen reconditioned Greyhound buses were leased, and an interim exhibit facility was built at Gate 3. More than 1,500 visitors took the tour on the first day of operation, July 22, 1966.

Attendance topped 50,000 in August, and it quickly became obvious more buses would be needed to handle the crowds which exceeded all initial expectation.

On October 1, KSC began its student space science lecture demonstrations and tour series -- again to enthusiastic response from Florida school children.

Many Tour improvements and refinements have been made during the first year of operation.

Initially, two tours were offered -- one of the Spaceport only, and a longer one, covering KSC and Cape Kennedy. Acceding to the public's wishes, the shorter tour was dropped.

A glass booth was added in the Vehicle Assembly Building, and later, a second one was built. A new stop was recently installed at the Mission Control Center on the Cape, and it has proven one of the tour's highlights.

A photo platform was placed near the fence at Launch Complex 39's Pad A, so camera buffs could photograph Saturn V vehicles when they are on the pad.

To service crowds of 4,000 and more a day, more buses have been added, and newer ones have replaced older vehicles. The fleet now totals 40. TWA has hired a number of area school teachers to act as tour guides through the peak summer months and on weekends throughout the year.

NASA responsibilities for the tours are handled by Installation Support (bus schedules, facilities, logistics and overall operations) and Public Affairs (program content, exhibits, tour commentary, public reaction, etc.).

Simon J. Burttschell is KSC Tour Manager. His counterpart for TWA, which operates the tours under contract to the Center, is Byron W. Jackson.

-end-

RELEASE NO: KSC-316-67

FOR RELEASE: Immediate

July 19, 1967

NASA TOURS ONE YEAR OLD

KENNEDY SPACE CENTER, Fla. - - Saturday will mark the first anniversary of the Kennedy Space Center's escorted bus tours.

Since opening day, July 22, 1966, public response has been overwhelmingly enthusiastic. Despite low-key advertising and publicity, more than 440,000 people from all 50 states and more than 50 countries have taken the Spaceport tour.

The 500,000th visitor is expected later this summer.

"Fantastic," "unbelievable," "amazing" - - these are but a few of the comments voiced by tourists after they have seen NASA's Spaceport on Merritt Island and the launch facilities at Cape Kennedy.

The two and a half hour drive, in modern, air-conditioned buses, includes stops at the Apollo Flight Crew Training Building and in the Vehicle Assembly Building on Merritt Island, and at the Mission Control Center and the Air Force Museum at Launch Complex 26 at the Cape.

-more-

The tour route winds past Mercury-Redstone, Delta, Minuteman, Mercury-Atlas, Atlas-Agena, Atlas-Centaur, Gemini-Titan, Saturn I, Titan III and Apollo/Saturn V launch sites, among others.

At Launch Complex 39, Apollo/Saturn V Pad A, the Mobile Service Structure, Mobile Launchers and transporters are key attractions, in addition to the VAB.

-end-

RELEASE NO: KSC-317-67
FOR RELEASE: Immediate

July 19, 1967

VIC LANDSCAPING TO BE SCENIC

KENNEDY SPACE CENTER, Fla. - - Landscaping of the Visitor Information Center will include six different varieties of palms and at least a dozen other trees, bushes, shrubs and flowering plants, most of which are being transplanted from other locations at the Spaceport.

"The shrubbery will be placed around the twin VIC buildings, and the trees are being set out to blend into a pattern," said Harrell Cunningham, Chief of KSC Roads and Grounds.

Cunningham and Kimzie Cowart, Trans World Airlines horticulturist, are supervising the landscaping project.

"We will plant about 141 palms in all," Cunningham said. He listed them as Phoenix Reclinata, Phoenix Sylvesterus, Canary Island Date, Queen, Sabal and Sago Palms. All of them grow at the Spaceport.

-more-

"The Phoenix Reclinata are among the most picturesque," he added. "They grow in clusters, and we are transplanting one cluster that has 13 large, twisted trunks. I estimate these trees to be about 60 years old."

Some of the palms tower up to 40 feet tall.

Other trees being used to beautify the VIC area include the Bottle Brush, Melaleuca and Magnolia, which has a large white blossom.

No citrus trees will be used in the landscaping because orange groves are located adjacent to the 42-acre VIC site.

A variety of ornamental shrubs will surround the building sites. These will include Chinese Box Orange, Banana Trees, Annuals, Crotons, Ligustrum, Ixora, Philodendron, Pittisporum and Popocarpus.

A few of the plants were purchased, but most trees and shrubs are being transplanted from other areas at the Center.

"Many of the flowering plants and shrubs were taken from old homesites that were evacuated when the Space Center was developed," Cunningham explained. Others are being moved from new building sites.

The work is being performed by TWA's Roads and Grounds crews, and will continue past the August 1 scheduled opening date of the VIC.

"We hope to eventually have some shade trees in the area, too," Cunningham said. "We would use Maple and Water Oaks, native to the Spaceport."

-end-

RELEASE NO: KSC-318-67
FOR RELEASE: Immediate

July 19, 1967

VETERAN ARTLEY
JOINS KSC STAFF

KENNEDY SPACE CENTER, Fla. - - Gordon Artley, a rocketry career veteran, has been named special assistant to the Kennedy Space Center Director of Technical Support, Ray Clark.

Artley will deal with specialized problems of the directorate, mostly management and technical integration of the complex and contractors.

He will also bring up to the state of the art what is required to accomplish the technical support mission at KSC.

Artley comes to the Center from the Marshall Space Flight Center's Mississippi Test Facility, where he was manager of activation and test and evaluation for NASA.

Prior to that, the California native worked with the Martin Company in Orlando on the Sprint program, and from December 1960 to October 1963, he was Martin site manager for the activation of Titan I and Titan II sites in Colorado, California and Kansas.

- more -

- 2 -

Artley is no stranger to veteran NASA launch team members at the Center. From February 1956 to December 1960, he was assistant director of the test laboratory for the Army Ballistic Missile Agency at Huntsville, Alabama, and had complete charge of test operations and the activation of test facilities there.

He began his aerospace career in 1949 with the Aerojet General Corporation. He was responsible for the design and activation of the Edwards Air Force Base test center and for launch and test facilities at Point Mugu, California, White Sands Missile Range, Cape Canaveral and at Huntsville. He did architectural engineering work, under a joint venture operation, on initial test facilities at Huntsville.

Artley attended the University of Southern California and Whittier College. He has an AB degree in mathematics and a BS degree in physics.

He will make his home in Brevard County with his wife, Elaine, and their four children, Robert, Paul, Cherie and Mark.

- end -

RELEASE NO: KSC-319-67
FOR RELEASE: Immediate

July 19, 1967

HYDROGEN TANKS
WORLD'S LARGEST

KENNEDY SPACE CENTER, Fla. - - The largest known storage vessels in the world for liquid hydrogen are located at the launch pads of the Kennedy Space Center's Launch Complex 39.

Pads A and B each have a liquid hydrogen storage facility for fueling the upper two stages of Saturn V launch vehicles. Each facility holds 850,000 gallons of one of the coldest substances known to science.

Liquid hydrogen turns into a gas at a temperature of -423 F. To prevent rapid vaporization, liquid hydrogen must be stored and transported in specially designed insulated tanks and pipe lines.

The two storage tanks for liquid hydrogen at Complex 39 are steel spheres 70 feet in diameter, containing inner stainless steel tanks nine feet less in diameter. Internal braces hold the two spheres apart. The four and one half foot space between the inner and outer tanks is filled with perlite, and an extremely low vacuum is maintained for insulation.

- more -

- 2 -

Tests on the already operational tank at Pad A show a daily vaporization loss of only about 200 gallons, well within the design parameters.

A fleet of specially designed truck trailers, each capable of carrying 13,000 gallons of liquid hydrogen, transport the cryogenic fuel to the Spaceport from a commercial plant in East New Orleans, La. Samples are taken to check the purity of the liquid before the hydrogen is transferred into the pad storage facilities.

Five trailers can be unloaded simultaneously within 90 minutes.

Stringent safety precautions are enforced during transfer operations. Personnel are required to wear flameproof coveralls, face masks, heavy leather gloves and non-porous shoes to protect their bodies from injury in the event any of the super-cold hydrogen is spilled. Roadblocks keep all unnecessary persons out of the transfer area until the unloading has been completed.

Whenever repair work must be done near the storage tank, continuous monitoring of the atmosphere is required to check for the presence of highly flammable hydrogen gas. No smoking is permitted at any time within 100 feet of the tanks and no welding or any spark generating equipment is allowed within the same distance. Spark arresting devices are required on all vehicles.

- more -

- 3 -

Two different methods are used to dispose of the hydrogen gas that vaporizes. Normally, the hydrogen is mixed with a small amount of gaseous nitrogen and vented into the atmosphere through a pipe atop the storage tank.

For large amounts of gas disposal, the hydrogen gas is piped to burn ponds. The gas is released underwater, bubbles up to the surface and is ignited by electrical hot wire elements installed at strategic locations within the pond area.

Vaporized hydrogen gas inside the storage tanks provides the pressure to move liquid hydrogen through the insulated pipe lines connecting the facility with the launch pad some 1200 feet away.

At the pads the transfer lines connect to those of the Mobile Launchers, to carry the propellant to the second and third stage fuel tanks of Saturn V rockets.

The Boeing Company operates the liquid hydrogen storage facility under its mission contract with NASA. The facility is administered by the Propellants Branch, Mechanical & Propulsion Systems Division, KSC Launch Vehicle Operations.

- end -

RELEASE NO: KSC-320-67

FOR RELEASE: Immediate

July 19, 1967

SPINNING GYROS HELP GUIDE SATURN'S FLIGHTS

KENNEDY SPACE CENTER, Fla. - - Spinning of a child's top demonstrates the scientific principle used in the guidance systems that send powerful rockets on a desired flight path into space.

Mount a top inside a circular frame and you have a gyroscope, a rapidly spinning wheel that offers considerable opposition to any force that would change the direction of the axis of spin.

Mount three precision gyroscopes on a platform, with the axis of one aligned in a north-south direction, a second pointed east-west, and the third up-down, spin the gyroscopes at a constant high speed, and the platform resists movement in any direction.

Suspend the platform inside three gimbal rings that can move freely while the platform remains steady and you have what engineers call an "inertially stabilized platform."

-more-

Then, build the device with precision measured in millionths of an inch, add three integrating accelerometers to measure the forces affecting the platform in any direction, incorporate electronic circuitry, connect to a programmed on-board computer and servo motors that control the gimbaling of stage rocket engines - - and you have some of the basic elements of the guidance system for updated Saturn I and Saturn V launch vehicles.

The Guidance and Stabilizer Systems Branch, Launch Vehicle Operation, checks out the Bendix-manufactured platforms in a laboratory in the low bay section of the Vehicle Assembly Building. Each system is tested before installation in the Instrument Unit stage of a Saturn vehicle being prepared for launch.

The stabilized platform and associated ground support equipment is further tested by the engineers of the branch during vehicle checkouts in the VAB high bays and on the pads.

Branch chief Milton Chambers has been working with rocket guidance systems for a dozen years. Since coming to the Cape in 1956 he worked on Redstone, Jupiter, Jupiter C, Pershing, and Juno II launch vehicles prior to the Saturn programs.

"Reliability of the gyros has improved over the years," Chambers says. "Gyros have also been miniaturized to quite an extent, along with the associated electronics."

Chambers joined the Army Ballistic Missile Agency at Huntsville, Alabama, in 1955 after three years with the Tennessee Valley Authority. He received a Bachelor of Electrical Engineering degree from the University of Florida in 1950.

-end-

RELEASE NO: KSC-321-67

FOR RELEASE: Immediate

July 19, 1967

FRANK BURKE HEADS
ENGINEERING TECHNICAL STAFF

KENNEDY SPACE CENTER, Fla. - - Taking charge of new organizations at the Kennedy Space Center is "old hat" for J. Frank Burke, chief of Design Engineering's technical staff.

Since his first KSC assignment in 1961, Burke has been heading newly-established offices here.

For example, he was chief of the (then) new Facilities Programming Office from December 1961 to August 1964.

He was responsible for establishing an organization to provide programming, budgeting, fund control, and scheduling of facility projects from design development through completion of construction.

Burke then became chief of the Apollo/Saturn Launch Facilities Branch, a new branch with responsibility for planning, design and construction of about \$200,000,000 worth of launch facilities.

-more-

Major projects in that job included modifying facilities at Launch Complexes 34 and 37 .

"Although all of my assignments have been interesting, those were the most challenging," Burke recalls.

Then in October 1965, he was assigned chief of the Planning and Technical Support Office. His initial task was to integrate and organize several diverse branches and independent units into one cohesive group involving about 50 people.

The office consolidated and performed such things as programming, master planning, space utilization, and real property accountability of some \$750,000,000 in facilities and equipment.

When Burke became chief of the Technical Staff for the Directorate of Design Engineering last December, it was a new function of the Directorate.

He had to first build a working organization from a group of 10 highly skilled technical specialists and weld them into a unit to operate at staff level. The staff acts as principal advisor and provides consultation services to the operational elements of the Directorate.

Before joining KSC, Burke was at the Marshall Space Flight Center as special assistant to the chief of the Projects Section and project coordinator. His other experience includes two years with Pan American at Patrick Air Force Base, one year with the Air Force at Holloman Air Force Base, and various engineering jobs with private industry.

How does it feel to be away from the drawing board now?

"Even though I'm doing more administrating than actual engineering, I still like to think of myself as an engineer, and I guess I always will."

Burke graduated from the University of Arkansas in 1950 with a B. S. degree in civil engineering. He also studied business administration at the university.

He is a life member of Tau Beta Pi, honorary engineering society; a member of the National Society of Professional Engineers; and the American Society of Civil Engineers.

Burke lives at 115 Carrigan Blvd., Merritt Island, with his wife and three children.

RELEASE NO: KSC-324-67

FOR RELEASE: Immediate

July 18, 1967

APOLLO PROGRAM MANAGER NAMED

KENNEDY SPACE CENTER, Fla. -- Rear Admiral Roderick O. Middleton, USN, has been selected as Apollo Program Manager at this Center by the Director, Dr. Kurt H. Debus. He will join KSC in early August.

Rear Admiral Middleton fills the position formerly held by retired Major General J. G. Shinkle. Mr. E. R. Mathews has been the acting program manager in the interim.

Rear Admiral Middleton comes to KSC from the NASA 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 Saturn 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

-more-

KSC-324-67

of Carrier Division 14 and Commander of Destroyer Division 142. The Observation Island supports Polaris submarine activities out of Port Canaveral on the Eastern Test Range.

He reported to the Naval Office of the Army Ballistic Missile Agency at Huntsville, Ala., in 1956. In December of the same year he joined the Polaris development program as head of the Missile Branch in the Navy's Special Projects Office, Bureau of Naval Weapons in Washington. For his work in the Polaris project, he was awarded the Legion of Merit in 1961.

At the start of NASA's Mercury Program, he was in command of the destroyer division whose flagship, the USS Noah, recovered Astronaut John Glenn, Jr. and his Friendship 7 spacecraft February 20, 1962 after Glenn became the first American to orbit the earth.

Rear Admiral Middleton was born in Pomona, Fla. January 23, 1919. He attended Florida Southern College in Lakeland before his appointment to the U.S. Naval Academy in 1937. He was commissioned ensign upon graduation in 1941. He was promoted to Rear Admiral July 1, 1967.

He returned to Annapolis in 1945 for post-graduate work and received a master of science degree from Harvard University in June, 1946. During

World War II he participated in the campaigns at Guadalcanal, Solomon Islands, Iwo Jima and Okinawa.

He is married to the former Miss Ethel Bellows of Norfolk, Va. They have three children, Mrs. David F. Beale, Roderick Osgood, Jr., and Stephanie Adele Middleton. The Admiral's official residence is in Pomona Park.

RELEASE NO: KSC-326-67

FOR RELEASE: Immediate

July 22, 1967

**NASA TOURS COMPLETES
FIRST YEAR OF OPERATION**

KENNEDY SPACE CENTER, Fla. -- NASA Tours completed the first year of operations yesterday, recording a total of more than 475,000 patrons who toured the Space Center since July 22, 1966.

Daily bus tours are conducted by Trans World Airlines for the National Aeronautics and Space Administration

As the first tour year ended, attendance during July may establish new records both for the daily average of approximately 2,500 persons, and the monthly attendance which, at the present rate, will total more than 70,000.

- more -

KSC-326-67

The highest previous monthly total was March, 1967, when 60,765 persons toured. During August, 1966, 59,302 visitors enjoyed the escorted tour.

An interim facility at Gate 3, main access to the Space Center near US Highway 1, has served as the tour terminal. This will change August 1, 1967 when NASA opens a new Visitor Information Center located on the Merritt Island installation. The public may then drive directly to the VIC parking area to board tour buses.

###



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.2, # 46
news release

RELEASE NO: KSC-328-67

FOR RELEASE: Immediate

July 28, 1967

ARTIST RECORDS SPACEPORT SCENES

KENNEDY SPACE CENTER, Fla. -- Nationally known water color artist Theodore Hancock of New York is at the Kennedy Space Center this week sketching and painting Apollo/Saturn V and Vehicle Assembly Building scenes at Launch Complex 39.

He also plans to record the liftoff and flight of Apollo 4 this fall.

Hancock was originally commissioned by NASA to record launch activity here in 1964. He rode the NASA barge Promise carrying a Saturn I booster, from Huntsville, Alabama, to Cape Kennedy, documenting highlights of the trip with his brushes.

- more -

"The landscape at the Spaceport, the activity of the area excites me," Hancock said. "This is the frontier of a new world and I would have to say the interior of the VAB is the single most exciting feature I've seen.

"For an artist, this whole region is absolutely unique. Strange towers rising out of the sand dunes and that sort of thing."

Hancock says a photograph records fact, but a painting records the feeling of what it was like to be at a place at the time, in other words a historical significance.

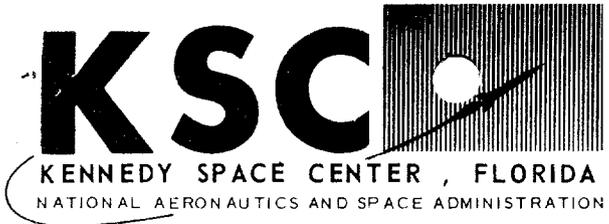
"Just think what it would be like if someone had a drawing of Columbus getting aboard the Santa Maria," he points out. "Someday, perhaps people will look on the art work I'm doing now at the Spaceport in that respect."

Hancock, whose work is included in permanent collections of the Boston Museum of Fine Arts and the Museums of San Diego and Atlanta, will continue to paint here through the Lunar Orbiter launch next week.

The London-born artist will have a one man showing of his work in London October 24. A highlight will be unveiling of a 16 by seven and a half foot mural painted on the theme of space.

####

2A.2, #46



news release

RELEASE NO: KSC-330-67
FOR RELEASE: Immediate

July 26, 1967

WHITE HOUSE FELLOWS TO TOUR KSC

KENNEDY SPACE CENTER, Fla. -- Seventeen members of the White House Fellows will tour the Kennedy Space Center Friday as guests of Director Dr. Kurt H. Debus.

The Fellows, all promising young business and professional junior executives, are spending a year in Washington under White House Fellowships, participating in the everyday operations of the federal government at top levels.

The program is designed to give participants a better understanding of government problems and operations.

- more -

The Fellows will be briefed on Center activities by Raymond L. Clark, Director of Technical Support. John Neilon, Deputy Director of Unmanned Launch Operations, will also brief them on programs involving his organization.

They will tour NASA launch sites at Cape Kennedy, lunch at the Center, and then will receive a briefing and tour of the manned lunar landing program launch facilities at Complex 39 at the Kennedy Space Center.

Accompanying the group will be Michael W. Kirst, assistant director for the President's Commission on White House Fellows.

The Fellows expected are William S. Abbott, Walter S. Baer, John W. Bassett, Jr., Jane P. Cahill, Richard D. Copaken, Thomas E. Cronin, William P. Graham, Sanford D. Greenberg, Samuel H. Howard, Walter J. Humann, Thomas O. Jones, F. P. Linaweaver, Jr., James P. Maloney, Jr., John W. McCarter, Jr., J. Timothy McGinley, John S. Pustay, and Charles D. Ravenel.

###



news release

RELEASE NO: KSC-333-67

FOR RELEASE: Immediate

August 2, 1967

SAFETY COURSES OFFERED AT KSC

KENNEDY SPACE CENTER, Fla. --A new program of safety courses has been started by KSC's Systems Training and Employee Development Branch for employees working the operational areas of Launch Complexes 34, 37, and 39.

The courses, conducted by Bendix Training and coordinated through the STED branch, will fulfill a safety requirement from the NASA Safety Office for any employee who has to repeatedly visit or work in danger areas.

Courses include Complex 39 safety orientation and blast escape system, Complex 34/37 safety orientation and slide wire egress certification, and manlift training for both Complex 37 and 39.

Safety orientation courses will give workers a knowledge of the surroundings and the hazards at the respective launch complexes.

The blast escape system training course and the wire egress certification will acquaint workers with the methods for quick use of these two ways of escape from service structures and launch towers at the outset of any mishap at either pad.

-more-

The manlift training program teaches the correct methods of using open and sideless elevator platforms that run continuously from the top to the bottom of the launch and service structures. These provide a quick method of transportation from one floor to another without delay of waiting for the regular elevators.

The program will train a total of about 12,000 employees, plus all future employees using these areas. Some will take more than one course.

The Director of Installation Support has been notifying NASA and contractor supervisors of the schedules for classes.

The scheduling of classes will be handled by the Systems Training and Employee Development Branch for NASA employees and through the Bendix Training office for contractors.

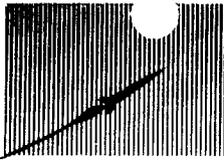
Some courses are underway. The manlift training course for Launch Complex 37 began July 21, and the Complex 39 safety orientation started August 1.

Bus transportation will be provided by KSC for employees from Pad A and the Launch Control Center at Complex 39 for the LC 39 orientation at the training auditorium.

The LC 39 courses will be given in the KSC Training Auditorium, and the courses for 34 and 37 will be held in the conference rooms at the administrative support buildings of the respective complexes.

2A.2, #46

KSC



KENNEDY SPACE CENTER , FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

RELEASE NO: KSC-334-67

FOR RELEASE: Immediate

August 2, 1967

ESRO GROUP STUDIES KSC LAUNCH OPERATIONS

KENNEDY SPACE CENTER, Fla. - - The Kennedy Space Center's Unmanned Launch Operations is playing host to a group of 15 German, English, French and Belgian scientists of the European Space Research Organization and representatives of Junkers, the spacecraft prime contractor, who are here at the Center for the launch of the HEOS project sometime next year.

To integrate themselves with the ULO activities, the ESRO group is gaining in-depth familiarization with ULO facilities, operating procedures and safety and documentation requirements, from spacecraft handling to post-launch telemetry and data processing.

Don Sheppard, chief of ULO's Spacecraft and Vehicle Support Operations Branch, is coordinating the group's activities..

- more -

- 2 -

Bob Goss , Goddard Space Flight Center HEOS project manager , and Bill Witt of the GSFC International Programs Office , accompanied the group to the Cape and participated in the mission planning and NASA support discussions .

HEOS - Highly Eccentric Orbiting Satellite - is to be placed into a "way-out" earth orbit with an apogee of some 165,000 statute miles for observations of earth magnetic fields and radiation levels at varying altitudes , at a time coinciding with a period of maximum solar activity . HEOS will be launched on an improved Delta .

ESRO officials here for HEOS operations are Dr. Jean Vandekerckhove of Belgium , project manager; Graham Booth of England and Andre Moritz of France , assistant project managers; Dr. Franz Lennertz of Germany , in charge of HEOS spacecraft checkout; and Sidney Hoyle of England , experiment coordinator .

The foreign group was welcomed by ULO Director Robert Gray last month and briefed on procedures by Sheppard and Goss , then they went to Launch Complex 17B to watch DELTA 50 pass its All-Systems test in preparation for the launch of Explorer-35 on July 19 .

- more -

-3-

"The successful start and increasing activity of the ESRO program," says Sheppard, "is convincing evidence that it is possible for nations to get together and work together in the common interest of advancing the frontiers of the space sciences."

- end -

RELEASE NO: KSC-335-67

FOR RELEASE: Immediate

August 1, 1967

500,000th VISITOR

KENNEDY SPACE CENTER, Fla.--The half millionth visitor to the Kennedy Space Center toured the Spaceport Tuesday morning.

He was Donald A. Jackson of 39 Krebs Drive, Sabina, Ohio, who took the tour with his wife, Sue, and their three children, Cheryl, Craig and Doug.

Jackson works for the National Cash Register Company in Dayton, Ohio.

They were greeted at the Visitor Information Center by KSC Director Dr. Kurt H. Debus and by Deputy Director Albert F. Siefert.

The Jacksons were presented with an enlarged color portrait of the Vehicle Assembly Building to commemorate the 500,000th visitor milestone.

"It's a great thrill just to be here," Jackson said. "We've heard a lot about the space program and we wanted to see the actual launch sites. This will certainly be the highlight of our vacation."

- more -

People from all 50 states and more than 60 foreign countries have taken the escorted bus trips of the Spaceport since they were begun July 22, 1966.

More than 78,000 toured this July, setting a new monthly record, topping March, when 60,717 visited the Center.

The tours are operated by Trans World Airlines under contract to NASA. Simon J. Burttshell is NASA Tours Manager and Byron W. Jackson holds a similar position for TWA.

The popular tours take about two and a quarter hours to complete, covering sites at Cape Kennedy and at NASA's Spaceport on Merritt Island.

One of the peak points of interest is a stop and briefing in KSC's Vehicle Assembly Building, where Apollo/Saturn V lunar rockets are readied for flight.

Another key stop is at the Mission Control Center on the Cape. Manned Mercury flights and the first two-man Gemini mission were controlled from here.

The tour route also winds past such historic sites as the pads where Explorer I, the first American satellite, and Mercury-Redstone 3, carrying the first American astronaut, Alan Shepard, were launched.

Modern NASA and Air Force launch sites are also included on the tour, such as the Gemini-Titan II area, Delta, Atlas-Agena and Atlas-Centaur pads, and the uprated Saturn I complexes, 34 and 37.

On Merritt Island, visitors drive around Launch Complex 39, the manned lunar landing launch area. They also see the Manned Spacecraft Operations Building, where Apollo spacecraft are checked out and astronauts are housed while in training at the Center.

The opening Tuesday of the Visitor Information Center with its films, exhibits, displays, paintings and models means one more exciting stop on a tour that has already been praised as "unbelievable," "fantastic," and "a unique experience," by the nation's public.

- end -

RELEASE NO: KSC-336-67

FOR RELEASE: Immediate

August 1, 1967

EXTENSION OF TWA AND LTV
SUPPORT SERVICES CONTRACT

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration will extend support service contracts with Trans World Airlines and Ling Temco Vought Range Systems Division for installation support services at the Kennedy Space Center.

The extension of the two contracts will permit NASA to make a detailed evaluation of the impact of reductions in its FY 1968 budget authorization on requirements for installation support at the Kennedy Space Center and will enable NASA to study with the Civil Service Commission and General Accounting Office questions which have been raised concerning NASA policies and procedures relating to support service contractor operations.

NASA had issued a request for proposals earlier this year calling for consolidation of functions being performed under these two contracts into a single contract which would commence January 1, 1968.

The estimated value of the consolidated contract for one year was \$33 million.

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

#

RELEASE NO: KSC-353-67

FOR RELEASE: Immediate

August 30, 1967

'DISINTEGRATION MACHINE'
DESTROYS CLASSIFIED MATERIAL

KENNEDY SPACE CENTER, Fla. - - That growling, gnashing noise behind the KSC Headquarters Building on Tuesdays and Thursdays is the Center's monster "paper eater" satisfying its cavernous appetite.

The monster in this case, however, is a mechanical one - - a large, modified hammermill much like that used by farmers to grind and mix grain and livestock feeds.

It was procured by the KSC Security Office to destroy classified material and sensitive information such as procurement bids, personnel records, proprietary contractor documents, etc.

The machine, mounted on a semi-trailer for mobility, can chew up documents as thick as two inches at a rate of 2,000 pounds per hour.

Material to be destroyed is hand-fed into the machine under the supervision of an operator. From there, it is carried by a conveyor belt across a spinning, high-speed shaft embedded with hundreds of razor-sharp, steel knives.

The cotton-like remains are squirted with water - - to reduce it to a soggy pulp - - and then taken to the dump and scattered.

- more -

- 2 -

"The unit serves NASA and contractor elements on Merritt Island and the Cape," says Merle McIntire, KSC security specialist who schedules and coordinates the machine's operation.

"We also handle special requests, and, occasionally, the General Electric Company in Daytona will send down several truckloads of material for destruction," he added, explaining the machine's wide usage.

Normally, the unit is stationed behind the KSC Headquarters Building on Tuesdays and Thursdays. It is in operation from 1:30 to 3:30 pm. At times, it will be moved to various locations to handle special requests.

According to McIntire, the machine was acquired two years ago. Before that, classified or sensitive material was destroyed by incineration.

Classified material, he emphasized, must be destroyed in accordance with established regulations and policies that prescribe who will accomplish the destruction, who will witness it, and what documentation is necessary. Also, when classified information is destroyed, the "hopper" must be checked afterward to make certain that destruction was complete.

- more -

- 3 -

"Presently, we can handle all requirements with a single unit on a part-time basis," McIntire pointed out. "If the workload increases, we can go to a full-time operation. Beyond that, we will either have to establish a second shift, obtain another unit or eliminate certain types of material to be destroyed."

The unit is maintained and operated by TWA for KSC's Heavy Equipment Section, headed by George Ragusin. Control and direction is provided by KSC's Launch Operations and Physical Security Branch under George Morford.

- end -

RELEASE NO: KSC-354-67
FOR RELEASE: Immediate

August 30, 1967

THEY TEST APOLLO
FLIGHT HARDWARE

KENNEDY SPACE CENTER, Fla. - - If it's flight hardware for the Apollo spacecraft, the Special Flight Section of the Kennedy Space Center's Quality Surveillance Division tests it for reliability.

The 14 men of this section have the responsibility of assuring the astronauts that everything from their spacesuit gloves to the optical space sextant is "A-OK" for installation in the Apollo command and lunar modules.

Herb Ward, section chief, says, "our main job is inspecting all flight hardware, including the spacesuit and its components, the guidance and navigation system, the biomedical facilities, the pyrotechnic areas, the astronauts' experiments, and even each astronaut's personal kit before installation. After installation, the spacecraft crew handles it."

To do this, the men of the section run the flight hardware through unique tests in simulated environments in laboratories at the Manned Spacecraft Operations Building and other testing areas at KSC.

- more -

- 2 -

Phil Ramsey, an electronic equipment inspection specialist in the section, pointed out: "We test the spacecraft's navigational system by aligning it with special columns in the MSO building, and then shooting a star from the lawn outside."

Ward noted: "As for the pyros (the explosive parts that pop out parachutes and antennae during flight), we test fire each lot."

Robert W. Pfau, a mechanical equipment inspection specialist for spacesuits, added, "We continually check the spacesuits for adjustments in size. This is necessary because the astronauts are fitted for their pressurized spacesuits by special tailors about six or eight months before flight time.

However, due to heavy physical exercise during the last few months of training, their muscles become larger, especially the ones in their hands. As a result, we have to redo their suits. We tear apart the seams and resew them."

"We also check the biomedical sensors - devices for recording human physical reactions - to make sure they are in excellent operating condition before attaching them to the astronauts prior to a flight," Ward said.

The men inspect the sensors at a Laminar Flow Bench, a special clean room facility that increases the degree of sterilization above that of the clean room.

- more -

- 3 -

These men also check out the food packages of the astronauts for each flight, making sure the vacuum is perfect and the seal of each package is tight. If they find a flaw, they repack and reseal the food.

Another of their duties is the testing of the astronauts' Portable Life Support System, the unit that maintains a suitable environment for the astronaut while he performs extra-vehicular activities outside the spacecraft during a flight.

When they check the astronauts' personal kits (each astronaut has one of these for personal belongings such as flags, medals and other items), they clean them and insure that they consist of materials that will not cause any problems with the pure oxygen environment of the capsule.

One of the major experiments under the surveillance of the section is ALSEP, the Apollo Lunar Surface Experimental Package. This has several different experiments in it. One is for solar winds, streams of energetic particles from the sun. It will detect "winds" on the Moon's surface.

To familiarize themselves with these experiments and learn the details of them, men like Robert Rayburn, an electronic equipment inspection specialist who is working on ALSEP, travel to contractors' plants throughout the country.

- more -

- 4 -

When a test detects a flaw, if the hardware is furnished by the government, NASA technicians correct it. Then the flight section men reinspect it. If the equipment is furnished by a contractor, the assigned inspectors supervise the contractor's corrections.

Part by part and step by step, these men are now checking the flight hardware of the Apollo command and lunar modules. When the countdown starts, the hardware under their surveillance will be ready.

- end -

RELEASE NO: KSC-355-67
FOR RELEASE: Immediate

August 30, 1967

KSC SUMMER STUDENT
PRAISES WORK EXPERIENCE

KENNEDY SPACE CENTER, FLA. - - Among the 82 students at the Kennedy Space Center is Colorado State University senior, James Day.

A marketing major, Jim has spent two summers working at KSC, and says there are three main things that have impressed him during this time - - the "vast scope" of KSC endeavors, the "exceptional friendliness" of all the personnel, and the "wealth of information" to be learned.

Particularly pleased by the tour conducted for the summer students, Jim feels the 1967 summer program has been greatly improved over last year's.

Assigned to the Procurement Office, Jim has been given "real responsibility" and has learned "so much that you just can't learn in a classroom."

There was just one thing that seemed to puzzle him: Why more people at KSC don't take advantage of the opportunity to learn all they can of this "history being made right under our noses?"

Jim has spent many evenings this summer reading up on NASA's history and that of KSC in particular.

- more -

- 2 -

He said he had wanted to prepare to become an astronaut, but was disappointed when he learned that his eyesight would prevent his being accepted.

The huge structures at Launch Complex 39 were, in Jim's words "staggering to comprehend," but perhaps the highlight of his summer was the day he met astronaut James McDivitt in the KSC Headquarters Building.

Jim will be returning shortly to his home in Lakewood, Colorado, but he is anxious to take his parents on a bus tour when they come down on their vacation this month.

After graduation, Jim says he is seriously considering becoming "an integral part of this fascinating, imminent goal -- to get a man on the moon."

- end -

RELEASE NO: KSC-356-67
FOR RELEASE: Immediate

August 30, 1967

**LOGISTICS A CAREER
TO GEORGE HARRINGTON**

KENNEDY SPACE CENTER, Fla. - - For George E. Harrington, logistics has become a lifetime career.

As chief of the Logistics Division at the Kennedy Space Center, Harrington is responsible for the flow of standard materials and supplies necessary to support launch operations at the Center.

Keeping the life blood of KSC flowing is an awesome task. However, Harrington, with over a quarter of a century in logistics, is well qualified for the job.

"It seems like everything I've done in my working life has been in logistics," he said. "But I did not start out in this field. I studied horticulture in college and did graduate work in agronomy."

After graduation from the University of Maryland, Harrington's first job was that of a horticulturist with the National Capital Parks. After that, he was an agronomist with the U. S. Golf Association Green Section in Beltsville, Maryland. He entered the U. S. Air Force in 1941 where he began his logistics career.

- more -

- 2 -

"I changed to logistics while in the service simply because I wanted to stay in the Air Force and I felt this would be the best field," Harrington said.

During his military career, he was stationed at various posts. His last tour of duty was at the Headquarters of the Air Force Logistics Command at Wright-Patterson Air Force Base in Ohio, where he was the assistant director of supply.

Before that, he served at various other places, including command of the Rome Air Material Area at Griffis Air Force Base in New York, where he created a logistics management information system. He joined NASA in April 1966, following his retirement.

Harrington's responsibility includes all purchases of standard spare parts under \$2,500 for all NASA and NASA contractors at KSC. The supply inventory amounts to \$9 million and 48,000 line items. Purchases amount to about \$13 million annually.

He also supervises the operation of the bus tours by TWA, and directs all transportation operations at KSC, such as the railroads, trucking and the barges that deliver the rocket stages to KSC.

Harrington has developed a Logistics-Objectives Program for Improved Management. This is a set of 17 basic objectives to improve the logistics operations at the Spaceport. It was started in 1967 and will continue into 1969. Facets of the program have already been completed by his division.

- more -

- 3 -

In addition, he has initiated a logistics management information system at the Center. This system keeps track of the progress and problems of the departments within his division.

Under the program, each function's progress is charted. As long as the function is performing without any problems, it receives a good rating and a green tape. But, if a function is doing a below par job, then it gets a red tape on the chart.

"I do this so I can spot the problem areas quickly. Then I spend my time with the departments marked by red tapes. I don't bother the departments with the green tapes. I believe in leaving well enough alone," he said.

This is not an expensive system either. The charts cover 12 month periods. The only recurring expense during the period is the tapes.

Harrington's life is not all logistics and work though. He has a full family and recreational life. "I have a comfortable home in Cocoa Beach on the Banana River. And, my wife and I have a great time boating, golfing and enjoying the sunshine. We love the area.

"And, my children and grandchildren who live in the North love to come to Florida and spend their vacations with us."

- end -

RELEASE NO: KSC-357-67

FOR RELEASE: Immediate

August 30, 1967

PLAYALINDA BEACH TO CLOSE

KENNEDY SPACE CENTER, Fla. -- Playalinda Beach will be closed to the public effective Tuesday, September 5, 1967.

Jack Miller, Brevard County recreation director, has announced that lifeguard service will be terminated the day following Labor Day in accordance with the usual custom. Brevard County operates the beach during the Summer under agreement with the Kennedy Space Center.

Effective with the closing of the beach, the Center will reopen the permanent security posts east of Titusville Causeway, on SR 402, and south of Haulover Canal on Kennedy Parkway, formerly SR A1A.

The public will be permitted to travel north and south via Titusville Causeway, SR 406 and Kennedy Parkway, but for security and safety reasons will not be admitted to Beach Road, formerly designated SR 402, while the Apollo Saturn 501 launch vehicle is awaiting launch at Pad A on Complex 39.

- more -

The Indian River and Mosquito Lagoon bordering the Center's lands will remain open to the public for boating and fishing. All hunting in the area is controlled by the Merritt Island National Wildlife Refuge Manager, Curtis Wilson. Waterfowl hunting begins in late November, 1967.

#

RELEASE NO: KSC-358-67

FOR RELEASE: Immediate

September 1, 1967

NEW TOUR RECORD SET

KENNEDY SPACE CENTER, Fla. -- A new monthly record for NASA Tours attendance was established in August when 78,537 persons boarded the buses which tour the Center daily.

This represented a slight increase over the July, 1967 total of 78,081. By comparison, it was 20,000 more than August, 1966, the first full month of tour operations.

Since July 22, 1966, when Trans World Airlines initiated the escorted trips in support of NASA's educational program, 578,249 persons have participated.

A drop-off in daily patronage is anticipated after the Labor Day weekend due to resumption of school classes throughout the Southeast. Special student tours are conducted by NASA for class groups with teachers. These will resume in mid September.

- more -

The bus tours begin at 8:30 A.M. daily and the final trip departs the Visitor Information Center at 5:30 P.M. Visitors enter from US Highway 1, two miles south of Titusville, and drive to the Visitor Center which serves as the tour terminal.

#

RELEASE NO: KSC-360-67
FOR RELEASE: Immediate

September 13, 1967

VIC IMPRESSES TOURISTS
WITH FILMS, EXHIBITS

KENNEDY SPACE CENTER, Fla. -- The Kennedy Space Center's Visitor Information Center is proving to be a highlight for Spaceport tourists.

"Not only have all the comments on the Visitor Information Center been good, but no one has made any adverse comments about it," said a KSC spokesman.

"The building is really fascinating. I think it helps to explain things that I've seen on television," said 18-year-old Carolyn Siegel of Philadelphia.

"I like it. It looks pretty neat," said eight-year-old Danny Karsner of Newtown Square, Pennsylvania.

Mrs. Carl C. Thomson of Oxen Hill, Maryland, who was not interested in space until she saw the VIC and the Space Center, said: "The exhibits are very interesting and informative. I learned a lot about space exploration from them that I never knew before, especially concerning spacesuits and food for the astronauts."

-more-

-2-

Exhibits in the VIC include models of spacecraft, buildings and the mobile structures used at Launch Complex 39. Paintings by nationally famous artists and pictorial presentations with written explanations of KSC's history are also on display.

Some exhibits have movable parts that demonstrate methods of operation like the three-foot-high model of the Vehicle Assembly Building.

More displays will be added and some will be changed by KSC to keep the exhibits current.

"We are now working on outside exhibits. So far we only have a Lunar Module and a Mercury capsule there. We eventually hope to have a whole family of space vehicles displayed on the grounds," said the spokesman.

"We are also continually trying to improve our present displays by updating certain exhibits when current events necessitate it," he added.

Other popular features in the VIC are continuous movies about the Spaceport and major events in this country's space program, a souvenir shop and a snack bar.

The movies are shown in two theaters located in the west wing of the facility.

-end-

RELEASE NO: KSC-361-67

FOR RELEASE: Immediate

September 13, 1967

SPACE CENTER PREPARED
FOR HURRICANE ALERTS

KENNEDY SPACE CENTER, Fla.-- Hurricane--a word that means screaming winds, high water and potential disaster.

Florida is in the midst of the "hurricane season," June through November, and disaster control officer Ralph Wilson is prepared for any ill winds which may blow toward the Kennedy Space Center.

Wilson outlined the four hurricane conditions that alert Spaceport personnel and trigger activities to "button up" the industrial and launch areas.

Hurricane Condition 4: Winds of 50 knots or higher are expected at Kennedy Space Center within 72 hours.

Condition 3: Hurricane force winds expected within 48 hours.

Condition 2: Hurricane winds expected within 24 hours.

Condition 1: Hurricane winds expected within 12 hours.

- more -

-2-

"Of course," Wilson emphasized, " a hurricane will seldom stick to this planning schedule. We can go from condition 4 to condition 1 in only a few hours."

With the announcement of condition 3, work begins to secure the Spaceport. Shutters are installed at the first floor level of buildings...trailers are tied down... antennas dismantled...sandbags placed around all except access doors...as workers prepare for the storm.

Condition 2 is announced. At this point NASA personnel may be placed on administrative leave. It is a decision which will be made by Dr. Kurt H. Debus, KSC Director. Customarily, contractor employees are placed on leave at the same time as government personnel.

Condition 1: Now, all except emergency workers have evacuated the Spaceport.

The disaster control officer and his assistants man a hurricane control center in the Headquarters Building. This is the focal point for operations at the Spaceport during a hurricane.

Voluntary "ride out" crews are on standby. These crews are composed of medical personnel, firemen, KSC patrolmen, mechanics, electricians and other key employees.

- more -

-3-

Time is the vital factor in preparing launch areas to withstand hurricane-force winds. For example, what if an Apollo-Saturn V was at Pad A, fueled and in a launch-ready condition?

Working around the clock, the vehicle would be de-fueled, fuel lines purged and all umbilicals disconnected.

The Mobile Service Structure would be returned to its parking area. Finally, the Mobile Launcher with Apollo-Saturn V aboard would be returned to the Vehicle Assembly Building by the Transporter. The VAB is designed to withstand winds of 125 miles per hour.

Complexes 34 and 37 will also withstand winds of 125 mph. At either complex, a rocket would remain on the launch pedestal, enclosed by the service structure which is equipped with hurricane doors.

At other launch areas, the vehicle must be disassembled. "It is evident why we must have adequate warning," said Wilson.

Weather information is provided by the office of staff meteorologist Ernie Amman. He receives meteorological data from the Environmental Science Services Administration, ESSA's National Hurricane Center in Miami, the Air Force Eastern Test Range and other sources.

- more -

-4-

ESSA and Nimbus meteorological satellites relay to Earth much of "the best" hurricane information, according to Amman.

- end -

RELEASE NO: KSC-362-67
FOR RELEASE: Immediate

September 13, 1967

VETERAN LAUNCH TEAM
BEHIND LUNAR ORBITER SUCCESSES

KENNEDY SPACE CENTER, Fla. -- One of the most successful launch programs ever carried out at the Kennedy Space Center was completed last month with the fifth Lunar Orbiter flight atop an Atlas-Agena vehicle at Complex 13.

There were five launches in the program, dating back to August 1966. All five vehicles performed with above average accuracy in placing the spacecraft into lunar orbit.

Orbiters have been major contributors to the effort to learn about the Moon's surface, and have acquired a wealth of photographic detail which will stand as the definitive source of lunar surface information for many years.

Among the many jobs assigned the program was the task of photographing potential manned lunar landing sites for Apollo.

A good portion of Orbiter's success began at the pad, under the supervision of KSC's Unmanned Launch Operations.

-more-

-2-

All five Atlas-Agena rockets were less than "One Sigma" shots. In engineering vernacular, this means dead-on-target within the bullseye. Hitting a "Three Sigma" flight would have been acceptable to carry out the missions, but the launch vehicle did much better.

In fact, as assistant Atlas-Agena launch director Harold Zweigbaum said, "that's as good as we can expect of the rocket. To get any better would just be luck. No flight is absolutely perfect, but 'One Sigma' is very close."

Zweigbaum explained there was no easy way to measure the exact accuracy of a lunar flight. It involves hitting an injection point in space at a given velocity, attitude, time and altitude.

There are errors during the entire flight. These are normally expected and are considered in planning. Engine performance deviations, yaw, roll and pitch errors - all these add up, Zweigbaum said.

"The errors tend to compound or cancel each other during the flight. From these errors you calculate an aiming ellipse, and you figure 99 percent of the time you can hit within the 'Three Sigma' boundaries of that ellipse."

-more-

However, each of the Atlas-Agenas performed so well that only minor mid-course maneuvers had to be made, and this gave Lunar Orbiter more working room to do a better job while circling the Moon.

Zweigbaum said no particular problems developed during the five launches. He did note, however, that Lunar Orbiter's weight -- around 860 pounds -- was right at the maximum payload poundage for an Atlas-Agena for a lunar trajectory, and this called for exacting propellant burn times in the Agena stage.

Zweigbaum, who heads ULO's Atlas-Agena operations, said the highly accurate flights were due in part to everyone doing their job exceptionally well.

"The plant employees should be given credit as well as the launch crews. There was good workmanship, as well as precise calibrations and adjustments at the pad.

"Everything finally checked out right on the money and remained that way right through launch."

-4-

ULO Director Robert H. Gray was launch director for each flight. The ULO Atlas-Agena team includes: Bob Searle, chief engineer; Joe Parker, Atlas controls and autopilot; Bob Kemerait, Agena guidance and controls; Walt Malloy, Atlas systems; George Looschen and Ray Rauth, radio guidance; Doug Ahrens, Atlas propulsion systems; Jerry Tritto, Agena propulsion systems; and Ed Decker, radio frequency systems and telemetry.

Prime contractors for the launch vehicle included: General Dynamics/Convair, Atlas; Lockheed Missiles and Space Company, Agena; General Electric, radio guidance; Burroughs Corp., guidance computer; and Rocketdyne, booster engines.

-end-

RELEASE NO: KSC-363-67
FOR RELEASE: Immediate

September 13, 1967

KSC TOPS COST REDUCTION GOAL

KENNEDY SPACE CENTER, Fla. -- Kennedy Space Center employees saved more than \$16 million during fiscal year 1967.

The figure topped the Center's cost reduction goal for the year by 37 percent, or more than \$4.3 million.

"The Program was highly successful," said KSC Director Dr. Kurt H. Debus. "These savings could not have resulted without the support of KSC employees at all levels, who participated in reducing costs and reported results of their actions.

"To these people I extend my congratulations and thanks."

Cost Reduction officer Ray Smith said the Center submitted actions totaling more than \$34 million, of which a net \$16 million was approved by NASA Headquarters.

One of the outstanding individual contributions was submitted by Harold G. Collins of Procurement.

-more-

-2-

His team was able to redistribute residual inventories from the Gemini program among various KSC contractors for reutilization in Apollo, precluding procurement of similar supplies and equipment.

Residual Gemini equipment was destined for scrap, but the team's efforts over a period of months resulted in the equipment finding new uses to meet valid Apollo requirements.

Collins' submission was one of 181 turned in to Smith's office, ranging from \$60 up.

Many ideas resulted from joint efforts of NASA and contractor teams.

"Though our record for the year is a success," Dr. Debus said, "we can improve. We need a sustained program to show the people and Congress that money spent on NASA programs is spent wisely.

"Cost reduction is a matter of top federal policy. The President, personally, directs the program. Secondly, it is to the significant interest of KSC's future."

-end-

RELEASE NO: KSC-367-67

FOR RELEASE: Immediate

September 19, 1967

DR. STOLTENBERG TO TOUR SPACEPORT

KENNEDY SPACE CENTER, Fla. -- Dr. Gerhard Stoltenberg, West Germany's Federal Minister for Scientific Research, and members of his official party, will tour NASA's Spaceport Wednesday as guests of Center Director Dr. Kurt H. Debus.

Accompanying the dignitaries will be NASA Administrator James E. Webb.

Following the tour, which will include detailed briefings on NASA activities at KSC, Webb will host a luncheon in the Manned Spacecraft Operations Building to be attended by local publishers and guests.

The tour will include a drive through of Air Force and NASA launch sites at Cape Kennedy and a stop at Complex 39 for a briefing on the Apollo 4 vehicle now on Pad A being readied for flight.

- more -

KSC-367-67

A briefing on the manned lunar landing program in the Launch Control Center, and a walk through the Vehicle Assembly Building will follow.

Members of the Stoltenberg party include: Max Mayer, Director, Space Research Division; Hans-Hilber Haunschild, Sub-Division Chief for International Scientific Affairs; Dr. Hans Schramm, Section Chief for ESRO and US-German Cooperation in Space Field; Dr. Hans Donth, Section Chief for Nuclear Research and Data Processing; Dr. Werhner Ungerer, Section Chief for International Scientific Affairs; Volker Knoerich, personal aide to the minister; and Dr. Ewald Giese, Second Secretary, Scientific Affairs, German Embassy.

Also included in the visiting party are Robert F. Packard, Department of State Director for the Office of General Scientific Affairs; Alfred Puhan, State Department country director, Germany; John Young, Bureau of the Budget; Arnold Frutkin, Assistant NASA Administrator for International Affairs; Benjamin McKelway, former President of the Associated Press; Dr. Lloyd Elliott, President, George Washington University; Paul Miller, President, Associated Press and Chairman of the Board, Gannett Corporation; A. H. Neuharth, President, Gannett Newspapers, Florida; and Matthias E. Lukens, Port of New York Authority.

#

RELEASE NO: KSC-369-67

FOR RELEASE: Immediate

September 25, 1967

KSC CHORUS TO PRESENT

FALL CONCERTS

KENNEDY SPACE CENTER, Fla. - - Four major performances have been scheduled by the Kennedy Space Center Chorus to be presented in Brevard County in 1967 Fall Series of concerts.

The first production scheduled by the chorus, under the direction of Arthur C. Benington, will be Tuesday, Oct. 3, at Titusville High School.

Curtain time for all performances is 8 p.m. Admission is free.

Appearances are also set for Oct. 5 at the Melbourne Civic Auditorium, Oct. 11 at Sheraton Cape Colony, and a guest performance Oct. 24 at Satellite High School.

George Robb, chorus chairman, said the Sheraton Cape Colony program will be in conjunction with the First Space Art Exhibit during "October Fair" in Cocoa Beach.

- more -

- 2 -

Appearing in a specially prepared color billboard presentation to accompany the chorus will be a quintet of Wackenhut Guardettes , depicting scenes of the holiday season . Several local radio personalities will narrate the two-part program .

The theme chosen for Part I of the Fall concerts will be "Holiday Montage" by Hawley Ades , portraying the American Holiday year in song. WEZY News Director Bill Larsen will narrate .

Part I will include a tenor solo by Troy Bomar , a whistling solo by Dean Stoda , and a tambourine background part by Tillye Moore . The chorus will be accompanied by Anna Aytes at the piano .

Part II will conclude with a variety of fast-moving numbers , accompanied by Anna Aytes , piano; Len Neiswander , FEC , drums; Bob Young , NASA , guitar; Jack DeVito , Bendix , lead bass guitar ." It also will introduce Susan Besko , a folk singer accompanied by the lute .

The chorus will again make a television appearance in color on Orlando's Channel 9 this fall . The date will be announced later .

- more -

- 3 -

Wackenhut Guardettes selected for the special presentations in the fall series , also to appear in the television broadcast , are Caran Elkins , Janice Hughes , Delinda Michael , Linda Swinson and Portia Taylor .

Guardettes Theryl Rowley , Sara Whitson and Barbara Bradley will assist performances as program and seating committee .

- end -

RELEASE NO: KSC-372-67

FOR RELEASE: Immediate

September 28, 1967

MILLER APPOINTED
DIRECTOR OF INSTALLATION SUPPORT

KENNEDY SPACE CENTER, Fla. -- Keith T. O'Keefe, Director of Installation Support, has submitted his resignation for personal reasons to the Center Director, Dr. Kurt H. Debus.

Dr. Debus has appointed Frederick H. Miller to the installation director's position effective October 1, 1967. C. C. Parker, Deputy Director, will serve as Acting Director of Installation Support in the interim.

Mr. O'Keefe joined the Center July 20, 1966. He retired from the Army while commanding Watervliet Arsenal, Watervliet, N.Y. after a distinguished career. He had earlier commanded Lordstown Ordnance Depot, Ohio; Redstone Arsenal, Alabama and the Army Overseas Supply Agency in Brooklyn, N.Y.

- more -

KSC-372-67

Miller is a retired Major General, U. S. Air Force. He came to NASA in 1966 and has been serving as Deputy Director of Administration and Chief, Resources Management Office for the Kennedy Space Center.

General Miller retired while commanding the Middletown Air Materiel Command in Pennsylvania. He is a graduate of Purdue University and received a master's degree in business administration from the University of Pennsylvania. He recently occupied a new home at 329 Kent Drive, Cocoa Beach with his wife, Alice.

#

KSC

KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #48

RELEASE NO: KSC-379-67

FOR RELEASE: Immediate

J. L. J.
September 29, 1967

TWA SELECTED TO PROVIDE OCCUPATIONAL HEALTH SERVICES

KENNEDY SPACE CENTER, Fla. -- NASA has selected Trans World Airlines to conduct final negotiations for a contract to provide occupational health services at the Center.

The Center plans to complete negotiations so that TWA will begin the contract period November 1, 1967. It is anticipated that the services will cost approximately \$680,000 during the first year. The contract will make provision for two one-year extensions.

The contractor will employ about 64 personnel including physicians, nurses and corpsmen.

TWA has been furnishing occupational health services under its base support contract with KSC. The Center solicited proposals for these services some time ago and selected Aerojet General Corporation and TWA to continue negotiations, as a result of which the final selection was made today.

###

RELEASE NO: KSC-373-67
FOR RELEASE: Immediate

October 2, 1967

BERTRAM OLD HAND
AT SPACE BUSINESS

KENNEDY SPACE CENTER, Fla. -- Emil Bertram, chief of Kennedy Space Center's Requirements and Resources Office for the Director of Launch Operations, could well be called an "old hand" in the aerospace business.

Bertram came here in July 1958 as staff coordinator for Dr. Kurt H. Debus, KSC Director, who was then launching missiles for the Army Ballistic Missile Agency. Bertram's job was to coordinate launch and support requirements for the agencies participating in the missile programs.

With the advent of the Mercury-Redstone program, Bertram became Center project engineer. Some of his fondest memories are of those early days.

"We did so many things that were 'firsts'", he recalls. "We were faced with almost infinite problems of man-rating munitions and making them reliable for manned flight."

- more -

When the Mercury program ended, he was assigned to the Operations Support Office of the Apollo Program Office. There he applied much of the manned space flight technology developed during Mercury, expanding what he had learned from working closely with the first seven astronauts.

Bertram's present KSC assignment began last year. The resources management staff of his office is responsible for budget, cost expenditures, space allocation and fiscal planning for the Directorate.

The Requirements Office plans and documents all support requirements, receiving inputs from organizations within the Directorate and analyzing and integrating them into the Directorate's activities.

"This is essentially a policy-making staff function," Bertram explained, "with much of the day spent solving problems."

"Being sure that people have an office to work in, and that it's big enough," he continued, "is as much of the job as processing all the support requirements for the Apollo 4 launch."

Since the Apollo 4 will be the first NASA vehicle to be launched from Merritt Island, new methods for processing and approving support requirements had to be defined and developed.

Bertram's office processed the support requirements and developed the necessary documentation.

A native of New Jersey, Bertram graduated from the Newark College of Engineering with a B.S. degree in mechanical engineering.

He spent four years on active duty in the Army Air Corps during World War II and was recalled during the Korean War. His experience in the munitions field led to his selection as an Air Force Technical Advisor to the NATO Forces.

Bertram is active in community affairs and has served as chairman of the Planning and Zoning Board for the City of Cocoa Beach, and on the Board of Adjustment. He was recently appointed a city commissioner for Cocoa Beach.

When he has the time, he spends it on his boat with his wife and two children. The boat is moored "in the back yard" of his home in Cocoa Beach.

RELEASE NO: KSC-374-67
FOR RELEASE: Immediate

October 2, 1967

JIMSPHERES: LAUNCH WEATHER EYES

KENNEDY SPACE CENTER, Fla. - - At approximately 2:30 pm August 31, I. W. Jones, control tower operator at the St. Augustine airport, spotted a mysterious, shiny sphere drifting across the inland waterway toward what appeared to be a landing.

A UFO? Jones didn't think so, but not taking any chances, he dispatched an aircraft to investigate. Minutes later, the pilot reported the location of the object. Subsequently, it was recovered by a deputy sheriff and delivered to Jones.

The object - - six feet in diameter, made of mylar and covered with cone-shaped protuberances - - looked every bit like "something from outer space." Painted on one side of the object were the letters and numerals S/N 323.

At this point, Jones was sure of only one thing: It was a balloon of some type. But what? Curious, he called Kennedy Space Center and described his find, indicating it might be a type flown inside the nose cones of rockets launched from NASA's Wallops Island facility.

- more -

- 2 -

A check with Wallops revealed this possibility was very remote. They suggested, instead, that it might be an Air Force weather balloon.

The assumption proved correct. Major Leon Barnett, operations officer with Detachment 11, Sixth Weather Wing at Patrick AFB, identified the balloon as Jimsphere, named after its developer, Dr. Jim Scoggins, a meteorologist at NASA's Marshall Space Flight Center.

"We launch two Jimspheres a day or about ten a week in support of NASA and Air Force launch operations," said Barnett. "They are used to measure high resolution winds responsible for the phenomenon known as wind shear."

Wind shear, he explained, is a scissor-like effect created by overlapping winds of different velocities. Rockets, especially the larger ones, moving through these zones of turbulence are subjected to extreme buffeting that can result in damage to the rocket or in its destruction.

Barnett acknowledged that the appearance of the Jimsphere might raise the eyebrows of the uninitiated. "Actually, it is a modified weather balloon of constant diameter. The cone-shaped protuberances break up the sphere's streamlined contour, causing it to travel a true course rather than jog back and forth like an ordinary smooth-surfaced balloon."

- more -

- 3 -

Weighing less than a pound, the helium-filled Jimsphere ascends rapidly on a true course, reaching a maximum altitude of about 60,000 feet. During its transit, radar signals are bounced off its mylar (aluminum-like) surface at one second intervals. Wind shears, if they exist, are charted and measured instantly.

"Although a Jimsphere is rarely recovered, it may reach the ground after extended stays aloft," Barnett pointed out. "Each has a tiny regulator valve that constantly equalizes the inside pressure as it climbs, keeping it from bursting at high altitude.

"After a period of time, normal seepage of helium through the mylar will reduce its lifting ability and cause it to settle back to earth."

Tom Marchese, an industrial engineer in the Special Projects Branch of the Apollo Program Manager's Office, says Jimspheres are sent up each day, one at 8 a.m. and another at 8 p.m. by the Cape Kennedy Weather Station. Data received by tracking equipment at the Cape is relayed to the Central Instrumentation Facility and computed to provide a daily log of atmospheric information.

"We do, however," Marchese adds, "receive requests from NASA for releases to support an Atlas or Saturn launch, and occasionally in the case of a specific studies program."

- more -

- 4 -

On certain launches, Marchese's Special Projects Branch will sometimes begin sending Jimspheres aloft 50 hours in advance of a mission.

"Should the data received reveal unfavorable upper air wind shears prior to a launch, it could require a hold or even a postponement of a shot. For example, Marchese pointed out, "Jimsphere information is used on all Saturn launches, and critical fueling schedules might have to be changed."

The NASA Special Projects Branch conducted a major test exercise at Cape Kennedy in a joint study requested by Marshall Space Flight Center and Wright-Patterson Air Force Base the week of September 11.

According to Marchese, Jimsphere balloons were used to detect wind shears for Wright-Patterson's Clear Air Turbulence (CAT) Program.

The tests called for a special Air Force U-2 craft, equipped with delicate sensors, to fly into the turbulent areas and record valuable wind speed and direction data, which scientists hope will tell them more about the mysteries of upper air phenomena.

When the Apollo/Saturn 501 lifts off from Complex 39, the Jimsphere launch team will be on hand to release some 20 balloons during the countdown.

- more -

- 5 -

A new method of processing the vital weather data will be used for the milestone launch, however. The information received will be piped directly to Marshall Space Flight Center in a raw state and evaluated.

"This," Marchese adds, "will enable the Spaceflight Center to almost immediately have the prelaunch answers it needs by the time our Jimspheres reach maximum altitude."

- end -

RELEASE NO: KSC-375-67

FOR RELEASE: Immediate

October 2, 1967

MOTOR POOL BUSY
AT KENNEDY SPACE CENTER

KENNEDY SPACE CENTER, Fla. - - Cars, trucks and buses assigned to the GSA Interagency Motor Pool at Kennedy Space Center traveled a total distance equal to more than 36 round trips to the moon during the past fiscal year.

General Services Administration is presently operating 1,828 over-the-road vehicles from its base in the KSC Industrial Area. Various government agencies located between Daytona Beach and South Melbourne and from central Orlando east to the Atlantic Ocean use 128 of these vehicles. The remaining 1,700 are in use at the Space Center.

Permanent assignments to various NASA and contractor offices account for 1,482 vehicles. This leaves 284 vehicles available for dispatch to transient personnel or special requirements, including the operation of sub-pools at the Melbourne and McCoy airports.

Another 50 vehicles are equipped with two-way radios. These range from 45-passenger buses through five-ton tractors, and from sedans to nine-passenger station wagons.

- more -

- 2 -

Shuttle buses operating between Cocoa Beach, Cape Kennedy and the Center cover about 14,000 miles each week, carrying an average of 6,500 passengers. Total mileage for all vehicles in the pool during Fiscal Year 1967 was 18,633,370.

Operation and maintenance of this fleet requires 147 GSA employees -- dispatchers, bus drivers, chauffeurs, service men, mechanics and administrators.

Vehicles are serviced every 2,000 miles, with major inspections every 12,000 miles. Average life expectancy for a standard sedan is 60,000 miles.

Motor Pool manager Hank Miller came to the Cape eight years ago with the Army Ballistic Missile Agency. The motor pool at that time had some 500 vehicles and 25 employees.

In 1961 Miller joined NASA as contracting officer's representative over contractor Management and Services at Oak Ridge, Tennessee. After his transfer to KSC, he became motor pool manager when GSA began its present operation in 1964.

- end -

RELEASE NO: KSC-376-67

FOR RELEASE: Immediate

October 2, 1967

PROPELLANT TEAM

FEEDS ROCKETS

KENNEDY SPACE CENTER, Fla. -- On the ground a rocket of the Apollo/Saturn class is a prodigious eater; in flight it is a glutton, gulping propellants in thousand-gallon bites.

The monumental job of keeping it fed and content is the responsibility of KSC's Propellant/Commodity Management Function, headed by James P. Cook.

The office, staffed by four civil service employees and assisted by approximately 30 members of the Bendix Propellant Life Support and Ordnance Department, is responsible for the timely and economical delivery of propellants and associated gases to KSC users when and where they need them.

It operates under the jurisdiction of the Propellants and Ordnance Branch within the framework of the Support Operations Directorate.

"Generally speaking," said Cook, "we have developed a comprehensive program for the whole function of propellant handling, from forecasting through receipt and distribution.

- more -

- 2 -

"Our basic concerns are propellants and gases such as nitrogen, oxygen, hydrogen and helium - - both in the liquid and gaseous state - - and RP-1. But we also deal in bulk alcohol, freon and trichloroethylene; hypergolics; liquid air; distilled and mineralized water and chemical mixtures and other commodities specifically requested.

"We even provide ultra-pure oxygen for astronaut breathing systems and spacecraft fuel cells," he added.

The office primarily supports all launch complexes in the Apollo/Saturn program, as well as the spacecraft portion of Unmanned Launch Operations programs. As a result, the heaviest users are Launch Vehicle Operations, Spacecraft Operations and their major contractors. It also provides support to Design Engineering when requested.

Personnel of the Propellants and Ordnance Branch have tackled the logistics problems of propellant handling since 1959, but this year the activity became so great with the onset of the Saturn V launches that a separate function was created to handle the scope and complexity of problems that propellant logistics entails.

"To give you an idea of the propellant quantities involved, the Apollo 4 vehicle alone will require 5.8 million gallons of liquid nitrogen, 3.5 million gallons of liquid oxygen, over 2 million gallons of liquid hydrogen and about 87,000 gallons of liquid helium," said Cook.

- more -

- 3 -

"These are gross figures and do not include large amounts of liquids and gases used for various support functions such as chemical analysis, purges, tests, pump cool-down and others too numerous to mention."

The bulk of the propellants are trucked to the Center - - some arrive by rail tank car - - from West Palm Beach, Mims, Savannah, Georgia and New Orleans, Louisiana. All helium comes from the U.S. Bureau of Mines in Amarillo, Texas.

One of the biggest problems faced by the office is scheduling and coordinating the arrival of shipments from the various plants. During peak activity for Apollo 4, for instance, an average of 30 tanker trucks a day carrying liquid nitrogen arrive at the Center. Each must be admitted, scheduled, sampled and off-loaded into the storage tanks.

Another problem is the frequent change in launch schedules, requiring alteration of quantity, delivery, etc.

"The key to our scheduling program is the accuracy of the users' forecast, which is done on a four-month, six-month and three-year basis," Cook said. "Based on this forecasting plan, which is updated every month internally, we order for the forthcoming month."

- more -

- 4 -

"We keep track of the flow with a chart system in the Launch Control Center at Complex 39, which gives us an up-to-date visual picture of users' requirements over a given time period and the steps we have taken to meet their needs.

"You might say, it is the heart of our operation."

- end -

RELEASE NO: KSC-377-67
FOR RELEASE: Immediate

October 2, 1967

SPACE MOVIES AVAILABLE AT KENNEDY
SPACE CENTER LIBRARY

KENNEDY SPACE CENTER, Fla. - - A new documentary movie called "To Worlds Beyond" is currently the film most in demand from the Kennedy Space Center Film Library.

About 400 different motion pictures are available without charge for loan to the public in the Georgia, Florida and Puerto Rico district served by the Space Center. Libraries at other NASA centers supply similar films on the national space program to other areas of the country.

"To Worlds Beyond" was produced in color here at the spaceport to tell how man's long-time dreams of traveling to worlds beyond are being realized today from Center launch pads. Nearly 75 percent of the library's 16mm prints are in color.

Other popular titles in the library include "Universe," "Space Quest," "Spaceport," "The John Glenn Story," "Apollo Lunar Mission Profile," "Legacy of Gemini," "Countdown to Rendezvous" and "International Cooperation in Space."

- more -

- 2 -

Every month librarian Lanette Billingsley processes an average of 350 requests for film showings. About 60 percent of the requests are from schools, with most of the others coming from various civic groups. The library also supplies films to television stations, other Government agencies, and NASA and contractor offices in the area.

Activities of the film library have increased about 800 percent since it was established in 1964. Ling-Temco-Vought operates the service under its KSC support contract.

- end -

RELEASE NO: KSC-380-67

FOR RELEASE: Immediate

October 2, 1967

COLONEL MORGAN NAMED MANAGER OF
APOLLO APPLICATIONS PROGRAM OFFICE

KENNEDY SPACE CENTER, Fla. -- Dr. Kurt H. Debus, Director of Kennedy Space Center, announced the appointment of Colonel Thomas W. Morgan, USAF, as Manager of the KSC Apollo Applications Program Office, effective October 9, 1967.

Mr. Robert C. Hock, who has been Acting Manager of the Apollo Applications Program Office since January 10, 1967, has been named Deputy Manager and will also continue to serve as Chief of the Advanced Programs Office.

In a separate action, Dr. Debus named Edward R. Mathews as Deputy Manager of the Apollo Program Office which is headed by Rear Admiral Roderick O. Middleton, USN. Mathews has been acting Deputy Manager of the Apollo Program Office since August 8, 1967. He will also continue to serve as Chief of the Saturn Systems Office.

- more -

KSC-380-67

As Manager of the Apollo Applications Program Office, Colonel Morgan will be responsible for KSC plans to meet Apollo Applications Program requirements and will be the primary point of interface for Apollo Applications Program functions with other Manned Space Flight Centers and the Office of Manned Space Flight.

Colonel Morgan comes to KSC from the United States Air Force's Manned Orbiting Laboratory Program at Los Angeles Air Force Station, Los Angeles, California, where he served as Director of Operations from January 1964 to September 1967. Prior to his MOL assignment, Colonel Morgan served as Chief of the Thor Launch Division, 6555th Aerospace Test Wing, Patrick Air Force Base, Florida, 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.

As Deputy Commander for Space of the 6555th Aerospace Test Wing, Colonel Morgan actively participated in the launch operations associated with both Mercury and early Gemini launches.

Colonel Morgan was born in Deridda, Louisiana, on January 22, 1922. He graduated from Auburn University with a Bachelor of Science degree in Aeronautical Engineering in November 1942 and was commissioned 2nd Lieutenant, United States Army Air Corps, at Yale University in July 1943.

KSC-380-67

Colonel Morgan attended the University of Michigan, Ann Arbor, Michigan, for two years beginning in June 1950, for the Air Force's graduate program in guided missiles. He was promoted to Colonel in April 1963.

He is married to the former Catherine Light Richmond and they have seven children. Colonel Morgan and family reside at Patrick Air Force Base.

#



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

2A.2, # 48
news release

RELEASE NO: KSC-384-67

FOR RELEASE: Immediate

J AL L

October 6, 1967

GEMINI STAMP SALES

KENNEDY SPACE CENTER, Fla. -- More than a quarter million Gemini "twin" stamps were sold at NASA's Visitor Information Center September 29, during the first day of issue ceremonies held there.

Stamp and space enthusiasts from a number of states and foreign countries were at the VIC for issuance of the unique double stamps, which depicted an astronaut walking in space, connected by a tether line to a Gemini spacecraft. A vertical perforation divides each segment into a five cent stamp.

Gemini 10 astronaut Mike Collins, Leo S. Packer, Assistant Postmaster General, and Albert F. Siepert, Deputy KSC director, Management, spoke at the ceremonies.

First day covers were stamped at the Visitor Center on September 29.

- more -

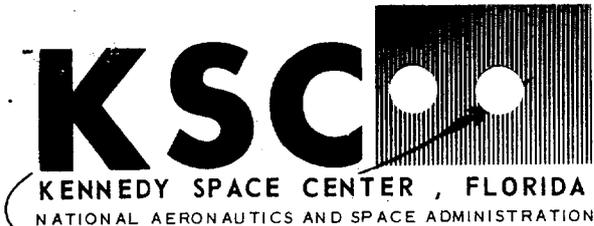
KSC-384-67

More than 11,000 special cachet envelopes were sold by the VIC store. The Post Office Department expects total sales of the stamps to exceed three million.

It was one of the most spirited first day of issue sales since a stamp was released following astronaut John Glenn's historic Mercury orbital flight in February 1962.

"This stamp salutes all men and women who contribute to the accomplishments of the American Space Program," Packer said during the ceremonies.

#



news release

2A.2, # 49

RELEASE NO: KSC-385-67
FOR RELEASE: Immediate

October 9, 1967

PALATKA SCIENCE STUDENTS TOUR SPACEPORT

KENNEDY SPACE CENTER, Fla. - - Forty-five students from Palatka Junior High School toured the Kennedy Space Center today and attended a Space Science Lecture-Demonstration at the Center's training auditorium.

Following the lecture-demonstration which covered satellites, launch vehicles and manned spacecraft, the students toured the launch facilities at the Spaceport on Merritt Island and nearby Cape Kennedy.

The students, members of the Ninth Grade science class, were accompanied by Robert Cleere Jr. and William Tilton of the Palatka Junior High School faculty.

This was the second trip to the Spaceport sponsored by Cleere's science class.

"When we announced that we were going to take another tour this year," Cleere said, "the children really scrambled to make sure they would get to go."

Cleere added that the students also pay their own expenses for the Spaceport field trips.

- more -

- 2 -

The lecture-demonstration program is administered by the Space Center's Education Office and is the only program of its kind offered by any National Aeronautics and Space Administration field center. Its purpose is to inform students, educators and the public on Space Age developments and to assist schools and institutions with the task of integrating applicable space technology into their curriculums.

- end -

RELEASE NO: KSC-387-67

FOR RELEASE: Immediate

October 10, 1967

CHAIRMAN OF REPUBLIC OF GHANA
TO VISIT KSC

KENNEDY SPACE CENTER, Fla. -- His Excellency, Lt. General Joseph A. Ankrah, Chairman, National Liberation Council of the Republic of Ghana, and his party will tour NASA's Spaceport Wednesday morning as guests of Deputy Kennedy Space Center Director for Management Albert F. Siepert.

The distinguished visitors will drive through Redstone Launch Complex 26, where America's first satellite, Explorer I was launched, and then past complexes 17, 36, 12, 14 and 34 at Cape Kennedy.

Later, they will be briefed on NASA's manned lunar landing program at Launch Complex 39 on Merritt Island. They will also view the Launch Control Center, Vehicle Assembly Building, mobile launchers, transporters and the Apollo 4 space vehicle at Pad A.

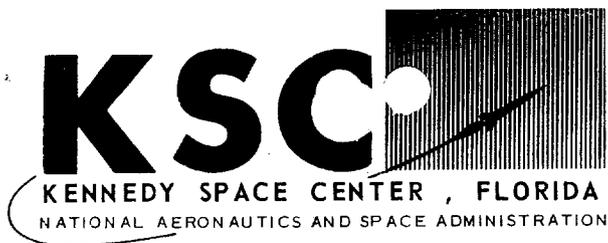
They are scheduled to depart from the Cape Kennedy Skid Strip at 12:30 p.m.

- more -

With General Ankrah will be: J.E.O. Nunoo, member, National Liberation Council and Commissioner of Police; Major General Cleland C. Bruch, Ghana Defense and Armed Forces attache; Ebenezer Moses Debrah, Ghana Ambassador; and Major J. K. Asante, military assistant to General Ankrah.

Also in the party will be Franklin H. Williams, American Ambassador to Ghana, and State Department security officer William Little.

#



2A.2, # 49
news release

RELEASE NO: KSC-381-67
FOR RELEASE: Immediate

October 10, 1967

STINSON RECEIVES

M S DEGREE

KENNEDY SPACE CENTER, Fla. - - A post graduate degree in space technology from the Florida Institute of Technology at Melbourne has increased the skill of Joel Stinson, a NASA Project Officer in the Delta Missions Office of Unmanned Launch Operations at the Patrick Air Force Base.

"My courses at F.I.T. helped me better understand the range system and the vehicle systems, and the inter-relationship between the two," said Stinson, who received a Master of Science degree in Propulsion.

His courses included propulsion, range instrumentation, mathematics and astrodynamics, the science of orbital mechanics.

Stinson spent over two years in night school getting his masters degree. He also taught a course in propulsion at the undergraduate school there.

Stinson, who got a Bachelor of Science degree in mechanical engineering from the University of Maine, is still attending F.I.T., studying systems management.

- more -

- 2 -

His aim is to better understand management theory, both governmental and industrial, and to learn more about research management.

Before joining Kennedy Space Center in 1964, he worked at the Lewis Research Center in Cleveland, Ohio.

He resides in Satellite Beach with his wife, Carol, and a one year old son, Kurt.

- end -

RELEASE NO: KSC-382-67

FOR RELEASE: Immediate

October 10, 1967

**JIM WHITE RECALLS
SPACEPORT'S EARLY DAYS**

KENNEDY SPACE CENTER, Fla.-- Need an experienced bird watcher?

Contact Jim White-- he's been at it professionally for 14 years.

But, don't expect him to peer through binoculars and identify a dozen varieties of swallows. His watching is of a different sort--electronic--and Audubon doesn't list his "finds".

This space veteran has been following the flight of missiles and rockets through the eyes of tracking and telemetry since the earliest days of the space program.

White, now Chief of Kennedy Space Center's Electrical/Electronic Systems Division, has a career paralleling America's conquest of space.

He came to Brevard in 1953 when the present Kennedy Space Center team was launching missiles from the Cape for the Army Redstone Arsenal. White headed the electronic tracking system then.

-more-

-2-

"We fired Redstones and Jupiters", he recalls, "small missiles in comparison to today's but great accomplishments at the time."

His eyes light up when he remembers the launch of Explorer I, America's first satellite, placed in orbit by a Jupiter C on January 31, 1958.

"That was the greatest thing--the most exciting thing we did", he reminisces. "That changed everything. We had been firing surface-to-surface missiles, but Explorer proved that one could stay up! That was the biggest step we ever took."

White explained that the launch was delayed because of high winds.

"It was ironic in a way. For some time we had been trying to test the reactions of Redstone missiles to high winds, but the 'jet stream' wouldn't blow for us."

The "jet stream" is a west to east air current that blows at high altitude.

White continued, "we were quite sure Redstones could take the turbulence okay but we had to wait very long to get an actual test."

"Now, we were equally sure Explorer couldn't tolerate much wind at high altitudes. So, after waiting in vain for the 'jet stream' to test Redstone, what came along the day Explorer was to go?"

-more-

-3-

White doesn't recall how long the delay was, but it seemed "interminable" to him.

He remained with the original launch team when NASA was established in 1958, transferring from the Army team to the new organization.

White has held a variety of posts in the Space Center's Information System Directorate, and was assigned last year to his present position in Design Engineering. His office is responsible for monitoring electronic and electrical facility designs produced by KSC contractors.

These facilities include the power system throughout the Center, communications at all Saturn complexes, the world's largest closed circuit TV system, and ground instrumentation for the Saturn complexes.

White graduated from Mississippi State with a B.S. degree in electrical engineering. From 1942 - 1945, he served in the U.S. Marine Corps in the Pacific Theater.

He lives in Cocoa Beach with his wife and two sons. He explains his hobby as "giving the boys sailing lessons--they sail and I instruct from shore."

-end-



2A.2, #49
news release

RELEASE NO: KSC-383-67
FOR RELEASE: Immediate

October 10, 1967

2000 COLONIES OF BEES
KEEP SPACEPORT BUZZING

KENNEDY SPACE CENTER, Fla. - - That buzzing sound at Kennedy Space Center may be the bees.

Nearly 2,000 colonies of bees presently inhabit the outer areas of NASA's Space Center along with the flocks of fowl and the usual animal population. Each colony contains from 60,000 to 100,000 bees.

These buzzing colonies are owned by commercial beekeepers who yearly rent space on the Spaceport to give their bees access to the abundance and variety of flowers that grow wild on Merritt Island.

Twenty five apiaries - each is a collection of colonies or beehives - have been licensed this year by NASA for location on KSC. Each beekeeper bids on the available apiaries.

A license does not restrict a beekeeper to any single area on the Space Center. He can place his hives anywhere within designated areas.

- more -

- 2 -

The keepers move their hives around as the flowers bloom. Flowers at the Space Center include the orange blossom, the mangrove, the palmetto, and various wild flowers. Mangroves grow in the low lands close to water along the river and marsh areas. Orange blossoms are found in the higher, drier areas.

Each beekeeper must notify J. F. Cain, Jr., Chief of Real Estate and Management Disposal for the Corps of Engineers of his colonies. Cain checks locations and keeps track of the number of colonies.

The beehives must be placed away from concentrated areas where they will be no problem to workers. However, if work must be done in an area where beehives are located, the beekeeper is notified to remove it.

The colonies are usually moved by truck at night, when the bees are in the hive. The hive is a square box that contains the honeycombs. During the day, the bees are out and around gathering nectar.

"We have never had any problems with the owners or the bees," Cain said. "They both have been very cooperative. Occasionally we have to move a colony. Recently, a beekeeper had to relocate a colony from a spot south of the VAB and west of the Kennedy Parkway because workers were getting ready to clear the area with bulldozers."

- more -

- 3 -

Most of the colonies are located west of the Kennedy Parkway between route 402 and the NASA Causeway.

Conrad Cramer of Cocoa has more colonies on KSC than any other licensee, spread over 15 locations.

The longest established beekeeper in this area is Woodrow Whidden. He was born here, and has the second largest number of colonies, around 250.

John H. Connery, Jr. of Deland, not only moves his colonies from spot to spot at the Center, but he also moves them from state to state. He takes them as far away as North Dakota to use seasonal blossoms there, then brings them back to KSC.

One of the beekeepers breeds queen bees on KSC and sells them to others. Each colony needs a queen. Beekeepers prefer to get their queen bees from a breeder rather than depending on their bees to raise them.

As the bees benefit from the flowers at KSC, so do the KSC flowers benefit from the bees. The bees pollinate crop flowers including citrus blossoms. Approximately 3,000 acres of KSC are planted in citrus.

So that buzz is a beneficial one.

- end -

RELEASE NO: KSC-386-67

FOR RELEASE: Immediate

October 11, 1967

GEMINI IX SPACECRAFT HERE

KENNEDY SPACE CENTER, Fla. -- Visitors to the Space Center will have opportunity to view the Gemini IX spacecraft flown by Astronauts Thomas P. Stafford and Eugene A. Cernan beginning Monday, October 16.

The spacecraft was shipped to the NASA installation's Visitor Information Center from the Langley Research Center in Virginia where it was on display.

Gemini IX was launched from Cape Kennedy June 3, 1966 and was recovered June 6. During the mission Astronaut Cernan completed two hours activity outside the spacecraft. It is the fully equipped flight version which will be seen at the Center. Each Gemini spacecraft was 11.2 feet high and 7.2 feet in diameter.

NASA will also have on public display the full-scale Lunar Module, 20 feet tall and 19 feet in diameter. This is a model of the spacecraft in

- more -

which two Apollo astronauts will descend to the surface of the Moon and later rendezvous and dock with the Apollo spacecraft for return to Earth.

The Visitor Center also serves as the terminal for daily bus tours of the Spaceport and Cape Kennedy conducted for NASA by Trans World Airlines.

#

RELEASE NO: KSC-392-67

FOR RELEASE: Immediate

October 13, 1967

INVESTMENT OFFICIALS TO TOUR SPACEPORT

About 100
KENNEDY SPACE CENTER, Fla. -- ~~Sixty-seven~~ of Western Europe's
top financial and investment officials will tour the Kennedy Space Center
Sunday as guests of Dr. Kurt H. Debus, Director.

The group includes leading business representatives from Belgium,
Denmark, France, Germany, Great Britain, Scotland, Holland, Sweden
and Switzerland.

Dr. Debus will host the visitors at a breakfast Sunday morning and
Dr. Robert C. Seamans, Deputy NASA Administrator, will address them.
Robert H. Gray, Director of Unmanned Launch Operations, will brief the
group at Atlas Centaur Complex 36. Following this, they will be driven
past various launch sites at Cape Kennedy.

In the Launch Control Center on Merritt Island, Rocco Petrone,
Director of Launch Operations for KSC, will present a briefing on NASA's
manned lunar landing program.

- more -

The visitors will then be taken on a tour of the Vehicle Assembly Building, and will view the Apollo 4 space vehicle on the pad at Launch Complex 39. They will also see the Manned Spacecraft Operations Building.

Dr. Debus and Dr. Wernher von Braun, Director of the Marshall Space Flight Center will brief the investment officials on overall NASA operations at the Spaceport before their departure.

#

RELEASE NO: KSC-391-67

FOR RELEASE: Immediate

October 23, 1967

AWARDS CEREMONY TUESDAY

KENNEDY SPACE CENTER, Fla. -- Two NASA employees and five contractors from Kennedy Space Center will be honored at the annual NASA Awards Ceremony in Washington, D.C., Tuesday.

Robert Gray, KSC Director of Unmanned Launch Operations, will receive the NASA Exceptional Service Medal for significant achievement and service characterized by unusual initiative and creative ability.

The NASA Medal For Exceptional Bravery will be given to Henry H. Rogers, Jr., KSC quality control inspector in the Quality Surveillance Division of Spacecraft Operations.

It will also be awarded to five North American employees, Donald O. Babbitt, a project engineer and pad leader for the second shift; James D. Gleaves, a mechanical lead technician; and Jerry W. Hawkins, Stephen B. Clemmons, and L. D. Reece, all technicians.

- more -

KSC-391-67

This award is being given for heroism and bravery during attempts to rescue astronauts Grissom, White and Chaffee from the fire in the Apollo 204 spacecraft on January 27, 1967.

The ceremony, to honor individual excellence, mutual respect and cooperation in the space program, is an annual event.

Gray was nominated for directing the preparation and launch of the Delta vehicles since 1960, and the Atlas-Agenas, Thor-Agenas, and Atlas-Centaurs since 1963 for NASA, and for the outstanding success achieved throughout 77 launches of these vehicles. Last week Gray directed the 50th successful Delta flight -- OSO-IV -- in a string of 53 launches dating to 1960.

The nomination noted that his leadership has been the motivating factor in KSC's ability to meet, with a dependability that is unexcelled, the varied technical and schedule requirements of the several launch vehicle programs that serve NASA unmanned space flight missions.

During performance of his duties, Gray has led a team of approximately 110 in the "testing, validation, physical integration and conduct of unmanned launch operations in support of the Delta, Agena and Centaur launch vehicle programs."

He has also provided the required spacecraft support and data acquisition of the 19 launch service and support contractors for efforts at both the Air Force Eastern Test Range and the Western Test Range.

Gray was additionally commended for having "recruited a high quality staff to supervise launch vehicle preparations, the conduct of launches, and for the establishment and implementation of an uncompromisingly thorough test program and procedures for the rocket checkout."

The commendation further noted that he provided the motivation and inspiration in achieving a record of 92 percent success in the 77 launches. These launches included Surveyors, Lunar Orbiters, the Early Bird, the TIROS, Rangers and Mars Mariner.

Dr. Kurt H. Debus, Director of KSC, made the nominations.

North American has also honored their recipients, and Rogers for their acts of heroism.

The NASA ceremony will be held in the auditorium of the Health, Education, and Welfare Building in the nation's capital.

KSC-391-67

"A KSC awards ceremony recognizing these people and honoring Center employees who have earned awards for their performances and achievements at KSC during the past year will be held locally after the launch of the Apollo 4," said Bill Martin, KSC's Incentive Awards Officer.

#

RELEASE NO: KSC-396-67

FOR RELEASE: Immediate

October 25, 1967

VICE PRESIDENT HUMPHREY

LAUDS KSC PROGRAM

KENNEDY SPACE CENTER, Fla.-- Vice President Hubert H. Humphrey has written a letter to Kennedy Space Center Personnel Chief Ben W. Hursey, commending him on NASA's Youth Opportunity Campaign here.

Nineteen Brevard area youngsters are employed at the Center under the YOC program. They are assigned jobs under various KSC directorates, filling such positions as clerks, typists and engineering aides.

"I have heard many good reports on the Youth Opportunity Campaign this summer at the Kennedy Space Center," Humphrey wrote. "You have performed a real service to these young people.

"Hiring disadvantaged youngsters is one of the best ways in which the Federal government can help those youngsters to help themselves. In addition to providing them with much needed jobs, you have also given them an opportunity to be a part of the exciting world of aerospace technology.

-more-

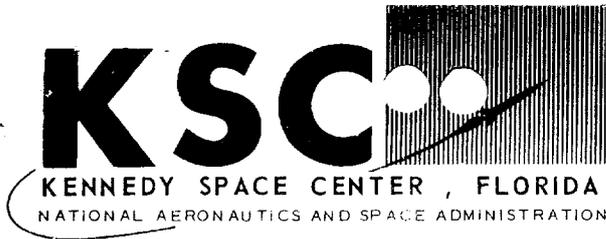
-2-

"I feel certain that their experience at the Space Center this summer has impressed each of these young people with the increasing necessity for education and training in the United States today -- and tomorrow. This alone would qualify the Youth Opportunity program as a success.

"As Chairman of the President's Council on Youth Opportunity, I want to congratulate you on your fine effort and to urge you to continue these efforts on behalf of our nation's young people. The mission of Kennedy Space Center links it closely with our nation's future. These youngsters, too, are central to the success of that future."

Ben Hursey, as Chief of the KSC Personnel Office, directs YOC activities. Nat Pilate coordinates the program.

-end-



2A.2, #49
news release

RELEASE NO: KSC-395-67

FOR RELEASE: Immediate

October 25, 1967

RADIO FREQUENCY SYSTEMS

VITAL TO APOLLO 4 TEST

KENNEDY SPACE CENTER, Fla. - - When the Apollo 4 space vehicle thunders to life, its Radio Frequency (RF) command, tracking, and TV systems will have undergone extensive testing prior to launch.

These systems electronically link ground crews to the vehicle and their proper checkout is essential to mission success.

Kennedy Space Center's RF Section has the responsibility of monitoring the prelaunch test of these systems. Saturn launch vehicle contractors, responsible for the systems located in their respective stages, operate the checkout equipment.

"This is real teamwork," says Jim Bizzell, chief of the section. "Everyone works together to insure a high degree of confidence in the systems. We have excellent NASA/contractor cooperation."

Saturn V systems for which the RF personnel are responsible are grouped by stages. For example, the Doppler tracking system (ODOP) is located in the first stage. Boeing engineers will check out that system.

- more -

- 2 -

Boeing also will be responsible for the TV system located in the first stage of the Saturn 502 and 503 space vehicles. This system shows views of engine gimballing. It will not be aboard the Apollo 4 vehicle.

All three stages of Apollo 4 will have DRSCS--Digital Range Safety Command System. This is a coded system used to relay commands from the ground to the vehicle ordnance. The Range Safety officer would use this system to destruct the vehicle if necessary.

The Instrument Unit which guides the Saturn V in flight, has three RF systems. One is the Command and Communications System (CCS). It is used as an instrument for relaying information from the ground to the launch vehicle digital computers and provides a link for telemetry data. It also is used in tracking the vehicle.

The Instrument Unit also has C-Band Radar, the prime tracking source for the Range Safety Officer, and Azusa which is a tracking system.

Tracking systems locate the position of the vehicle in space.

IBM is responsible for testing the RF systems in the Instrument Unit; North American has the second stage and Douglas Aircraft has the third stage RF systems in the Saturn V.

- more -

- 3 -

The KSC RF Section performs the same function for uprated Saturn I vehicles/launched from the Cape. Chrysler checks out the ODOP and DRSCS systems in the first stage; Douglas the DRSCS system in the second stage and IBM the systems in the Instrument Unit.

The Instrument Unit in the uprated Saturn has an Up-Data System that performs essentially the same as the CCS in the Saturn V, providing the link necessary to transmit information from the ground to the launch vehicle computers.

"You could think of us as a kind of telephone company," Bizzell explained, "in that we provide the equipment and make sure it works--but at launch, someone else dials the numbers."

There are seven NASA personnel in the Section, located in the LCC for Saturn V launches, and the Engineering & Laboratory (E&L) Building at the Cape for the uprated Saturn launches.

Checkout of Saturn V RF systems is conducted stage-by-stage in the VAB after the vehicle has been erected. They also are tested during simulated flights run on the integrated vehicle.

Additional tests are made at the launch pad, insuring that the vehicle has maintained its integrity, and that the tests made in the VAB are still valid.

- more -

- 4 -

The extensive testing requires interface with the Air Force Test Range , with Goddard personnel who operate the Unified S-Band at KSC , and other Center organizations .

"I can't overstate the importance of cooperation among all the organizations responsible for this work," Bizzell stated, "both government and contractor. It's been excellent and is one of the prime reasons that launch vehicle operations have run so smoothly in the RF area."

- end -

RELEASE NO: KSC-397-67

FOR RELEASE: Immediate

October 31, 1967

KING AND QUEEN OF NEPAL
TO VISIT SPACE CENTER

KENNEDY SPACE CENTER, Fla. -- The King and Queen of Nepal and an official party of 22 will tour NASA's Kennedy Space Center Friday as guests of Director, Dr. Kurt H. Debus, and will watch the launch of the Applications Technology Satellite.

King Mahendra Bir Bikram Shah Deva and Queen Ratna Rajya Lakshmi Devi Shah will arrive at Cape Kennedy at 2:15 p.m.

Following a drive past launch complexes at the Cape, the visitors will be briefed on NASA's manned lunar landing program in the Launch Control Center at Complex 39.

They will then tour the Vehicle Assembly Building in which Apollo Saturn V vehicles are readied for flight.

The King and Queen will view a transporter, and will be briefed on the upcoming Apollo 4 flight at Pad A.

- more -

KSC-397-67

There will also be a presentation on the Applications Technology Satellite at Hangar AE on the Cape. Then, the royal party will view the launch, at Complex 12, from the Range Control Center.

The King and Queen are scheduled to depart shortly after the launch.

#

RELEASE NO: KSC-407-67

FOR RELEASE: Immediate

October 31, 1967

BUS TOURS TO CLOSE ON LAUNCH DAY

KENNEDY SPACE CENTER, Fla. -- The NASA Center will be closed to the public on the day the first Apollo Saturn V vehicle, known as Apollo 4, is launched.

The Visitor Information Center and NASA Tours, the daily escorted bus tours of the Center and Cape Kennedy Air Force Station, will not be available to the public on launch day.

NASA has announced November 7 as the first target date for the launching.

In event of postponement, the Visitor Center and NASA Tours will reopen two hours after official announcement that the launch will not occur that day.

This arrangement will continue daily until the launch has taken place.

###

RELEASE NO: KSC-408-67

FOR RELEASE: Immediate

October 31, 1967

**TRAFFIC COUNTS INCREASE
AT KENNEDY SPACE CENTER**

KENNEDY SPACE CENTER, Fla. -- Recent improvements to SR-3 on Merritt Island and the opening of new subdivisions and apartment complexes nearby are reflected in the latest Kennedy Space Center traffic counts.

Gate 2, the south entrance to the Spaceport, tallied 8,385 cars on October 23, more than a 1,500 car increase over the count in October 1966.

Gate 3, the Center's main entrance from U.S. 1 south of Titusville, showed an increase about half that of the Gate 2 figure. The count made October 25 was 11,925. This is 736 more vehicles than in the same month last year.

Gate 4T, at the intersection of the Beach Road and SR-402 east of the Titusville causeway, recorded 4,942 cars in the latest count, about a 650 vehicle increase from October of last year.

Gate 5T, on the Haulover Canal road, posted the largest percentage increase of all Space Center access points. The 1,686 volume represents more than a 50 percent jump over last October.

-more-

The south gate to Cape Kennedy Air Force Station continues to show the largest traffic count. The latest survey at Gate 1, in May of this year, registered 15,397 vehicles. That total is down by more than one thousand cars from the August, 1966 figure, and is nearly 1,500 less than in January of last year.

Approximately 27,000 vehicles used NASA access gates during this latest count, accounting for about 64 percent of the total Cape/Spaceport traffic flow.

-end-

RELEASE NO: KSC-409-67

FOR RELEASE: Immediate

file
November 1, 1967

CONTRACT EXTENSION NEGOTIATED

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has authorized the John F. Kennedy Space Center to conduct negotiations with Trans World Airlines, its base support contractor, to extend the services from January 1, 1968, until December 31, 1968.

TWA employs 2,000 persons and provides maintenance, supply management, security, roads and grounds upkeep and other housekeeping services to the Center.

###

RELEASE NO: KSC-441-67

FOR RELEASE: Immediate

December 13, 1967

APOLLO BOILERPLATE TESTS AT KSC

KENNEDY SPACE CENTER, Fla. -- A strange-looking contraption is roving the scrubland of the Spaceport these days, playing an important role in the Apollo program.

The device is a 72-foot-high portable drop rig. It is used to drop a boilerplate model of the Apollo spacecraft to the ground to help measure impact rates sustained on various types of terrain.

The tests are being conducted to gather impact data under abort conditions when the mission would be terminated by a ground landing rather than on water.

The portable rig can be mounted on a low boy truck and can be set up and taken down at various sites. Mobile telemetry and timing equipment are located in vans that accompany the rig in its travels.

The boilerplate spacecraft is slung in the rig and then released in an arcing swing, hitting the ground at a speed of about 35 feet per second, or 17 miles per hour, the nominal velocity of a spacecraft landing under its parachute.

Inside the boilerplate are nine instrumented telemetry channels which record impact data to determine effects within the landing test area. Five different drop sites of varying terrain are used in the KSC tests; with three drops being made at most sites. Hardest impact was achieved at Pad B of Launch Complex 39. Other sites include palmetto areas, low-lying cattail and grassy areas, muck areas and sites not covered by significant vegetation.

Specifically the boilerplate tests will determine whether vegetation hinders or helps on an earth landing.

- more -

KSC-441-67

The series of 13 or 14 drops involve KSC and Manned Spacecraft Center, Houston, personnel.

The tests began in late November and, depending on problems of moving the rig over the rugged KSC terrain, will run in until mid-January.

#

RELEASE NO: KSC-442-67

FOR RELEASE: Immediate

December 15, 1967

**NORMAN PERRY RECEIVES LARGEST
SUGGESTION AWARD EVER GIVEN AT KSC**

KENNEDY SPACE CENTER, Fla. -- Norman R. Perry, a Space Systems Quality Control Representative at Kennedy Space Center has won a \$1,290 suggestion award, the largest amount ever received by a KSC employee under the Incentive Award Program.

Perry suggested a new type of thin film conformal coating for covering circuit boards and electronic components. The new coating represents a savings of \$240,000 to KSC in its first year of use. The savings come from the decrease in cost of the material plus the improved system of application. Other NASA Centers are now adopting the new material and methods which will mean an even greater NASA wide savings.

The 34 year old Perry is an old timer in the space business, transferring from the Army Ballistic Missile Agency to NASA's Marshall Space Flight Center shortly after the Space Agency was formed. He moved to Kennedy Space Center, then Launch Operations Center, in 1962 and has been here since that time.

Born in Atlanta, Georgia, Perry now lives in Titusville with his wife Betty and their two children.

###

RELEASE NO: KSC-444-67

FOR RELEASE: Immediate

December 20, 1967

**CONTRACT DOLLARS INCREASE
FOR FY '67 AT SPACEPORT**

KENNEDY SPACE CENTER, Fla. - - The Center's procurement program increased by \$84,697,000 in FY 1967 compared to the previous fiscal year, according to a year-end summary prepared by W. M. Lohse, the procurement chief. This was 41 percent more than FY 1966.

KSC awarded \$291,300,000 in contracts. Of that sum, more than \$15,500,000 went to small business firms.

Florida-based firms shared almost \$105,000,000 of the total or 36 percent of the Center's business. Brevard County firms received \$28,127,000 or 9.7 percent of the FY 1967 purchases.

Contracts and purchase orders of less than \$25,000 each added up to \$14,500,000 more than the figures reported for Florida, and much of this business went to firms located in the state.

The Center's procurement division handled 12,721 separate contracts, purchase orders, delivery orders and modifications in the fiscal year.

- end -

RELEASE NO: KSC-443-67
FOR RELEASE: Immediate

December 20, 1967

**SPACE CENTER TO FILL 200
GOVT. JOBS NEXT YEAR**

KENNEDY SPACE CENTER, Fla. - - More than 200 additional employees will join the Civil Service staff at KSC in the next seven months.

Ben W. Hursey, Chief of the KSC Personnel Office said, most of the Center's requirements will be for engineers with aerospace experience. He commented that "in the all-out search for the most qualified talent, first consideration will be given to all personnel at Marshall Space Flight Center and any other NASA Centers where a reduction in personnel may occur."

The Spaceport's Civil Service staff numbers 2,720, according to Harry W. Smith, Chief of the Professional Staffing and Examining Branch. This figures does not include some 60 co-operative employees, Youth Opportunity Corps workers and temporary employees.

"This is about 200 more employees than we had last year at this time," said Smith, "and we will be adding about the same number in the next several months. I would say the future here looks pretty bright."

The Personnel Office is maintaining an active college recruiting program. So far this college year, 22 schools have been visited. "We are about halfway through our schedule," Smith related.

He said that, as a general rule, Kennedy Space Center hires 50 new college students a year. The greatest need is for engineers, especially those with degrees in electrical, electronic and mechanical engineering.

Looking even further into the future, Personnel representatives maintain an annual speaking schedule at junior colleges, high schools and elementary schools.

- more -

- 2 -

"We talk to the students about Kennedy Space Center and the space program," Smith explained. "We stress the importance of preparing for the future - - and counsel against dropping out of school."

Under this program, Personnel Office employees visit 25 to 30 schools per year. Most of the schools are in Florida.

- end -

RELEASE NO: KSC-446-67

FOR RELEASE: Immediate

December 22, 1967

**ELECTRO-MECHANICAL RESEARCH CO.
AWARDED \$155,000 CONTRACT**

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration's John F. Kennedy Space Center has awarded a \$155,000.00 contract to the Electro-Mechanical Research Company of Sarasota, Florida.

The contract calls for equipment and engineering field services to modify existing Electro-Mechanical Research Company equipment in a telemetry checkout system located at the Kennedy Space Center.

Kennedy Space Center conducts manned and unmanned launches from Cape Kennedy and is responsible for assembly, checkout, and launch of the Apollo Saturn V from the new facilities on Kennedy Space Center.

###

RELEASE NO: KSC-447-67
FOR RELEASE: Sunday

December 24, 1967

KSC WRITES SPACE HISTORY
DURING 1967

KENNEDY SPACE CENTER, Fla. - - The successful mission of the first Saturn V rocket and a record of 23 satellite and space probe launchings for the year by the NASA Kennedy Space Center wrote a new chapter in America's space history during 1967.

Center Director Dr. Kurt H. Debus said, "the KSC 1967 launch record, highlighted by the first flight of the Saturn V is a tribute to the government-industry launch team. I am very proud of their dedication and accomplishments as well as the excellent support provided by the Air Force Eastern Test Range."

The maiden flight of the Apollo/Saturn V on November 9 was hailed as "a giant step toward the moon" by Dr. George E. Mueller, NASA Associate Administrator for Manned Space Flight.

It dramatically increased the confidence of people across the nation in the "management of the largest research and development that the western world has ever engaged in," Mueller said.

The mission was an almost flawless test for the new Saturn V launch vehicle and the Apollo spacecraft. Liftoff was at 7:00:01:.4, less than one-and-a-half seconds off the mark, after a remarkably perfect countdown on the first attempt.

At the conclusion of the textbook flight the spacecraft splashed down in the Pacific on schedule and only six miles from the recovery ship Bennington.

Continuing its successful operations in satellite and space probe launchings, the KSC Unmanned Launch Operations (ULO) team racked up its third record-breaking year in a row.

- more -

- 2 -

ULO hit a high batting average, scoring 22 successes out of the 23 launches. Only an Applications Technology Satellite (ATS-2) failed when the second burn on an Agena stage did not occur.

Early in November, ULO set another record by launching three spacecraft -- ATS-3, Surveyor 6, and the ESSA 6 weather satellite -- within six days. The first two launches were from the Cape and the third from Western Test Range.

And in December, as the year drew toward its close, evaluation of the Apollo 4 mission continued. Flight data reports at the NASA Marshall Space Flight Center, Huntsville, Alabama, indicated that all systems of the Saturn V performed nominally and ground support equipment functioned satisfactorily.

At Houston, data at the Manned Spacecraft Center showed that the Apollo spacecraft met all its flight objectives without problems.

The KSC launch team, directed by Rocco Petrone, received personal congratulations from Vice President Humphrey following the successful countdown and launch.

Eighteen of KSC's satellite and space probe launchings were from Cape Kennedy and five were from the Western Test Range at Vandenberg Air Force Base, California.

In addition to the Saturn V, launch vehicles used during the year were Delta (12 launches), Atlas/Agena (6), Atlas/Centaur (4), and Thor/Agena (1).

Spacecraft included scientific, interplanetary, communications and meteorological satellites of all sizes and shapes, launched into a variety of lunar, solar, earth and polar orbits, or soft-landed on the moon.

ULO Direct Robert H. Gray was presented the NASA Exceptional Service Award in ceremonies in Washington, D.C. for supervising the ULO launch team performance.

Probably the most dramatic of the year's ULO launches was the Mariner 5 Venus mission. The spacecraft was launched from Cape Kennedy in mid-June. Its object: to obtain information on the origin and nature of Venus and its environment.

Mariner 5 achieved "one of the highest accuracies on any Atlas Agena ever launched on an interplanetary mission," according to Gray.

- more -

- 3 -

It took 128 days to make the 217 million mile flight. On October 19, Mariner 5 hurtled to within 2,480 miles of the planet in a perfect fly-by.

Photographs were not taken, but valuable information was obtained by the various experiments aboard the spacecraft.

The Lunar Orbiter Project, to photograph the moon's surface, was successfully concluded with the launching of three spacecraft. Lunar Orbiter 3 was launched in February, Lunar Orbiter 4 in May and Lunar Orbiter 5 three months later.

Among the major accomplishments of these three satellites, and their two predecessors in 1966, were:

Pinpointing eight Apollo landing sites for astronauts; mapping the moon's surface 10 times better than has ever been done by earth telescopes; mapping, for the first time, more than 90 percent of the hidden side of the moon; and providing high-quality pictures of areas particularly interesting to scientists.

A companion spacecraft, Explorer 35, was placed in orbit around the moon to take precise readings on radiation, micrometeoroid and magnetic environment.

Another spectacular achievement of the year was the successful soft-landing of three Surveyor spacecraft on the lunar surface.

Surveyor 3 was the first of the type to be launched in 1967 and it was placed on the most exact trajectory yet known. It would have landed only 260 miles from its target on the moon even without a midcourse correction. But, as good as this was, subsequent Surveyors were launched so well that one required less than a 40-mile course correction.

Surveyor 3 landed on the moon in April and returned 6,319 photographs and provided 18 hours of operation of its surface sampling device.

Surveyor 4, launched in July, performed well until the last few seconds of burn of the retrorocket when all communications with the spacecraft were lost. The cause and the fate of the spacecraft are still unknown.

- more -

In September, Surveyor 5 soft-landed in the area called the Sea of Tranquility. In the 14 days prior to the first lunar sunset, its camera returned 18,006 photographs of the moon's surface in its vicinity, of the magnetic experiment aboard, and the operation of the alpha scattering device used to analyze the composition of the moon's surface.

In November, Surveyor 6 successfully landed on target in one of the most rugged areas of the moon. Scientists had only given it a 50-50 chance of survival.

It has sent back a record number of photographs and became the first spacecraft to be successfully moved and relocated on the lunar surface.

All but one of the remaining 13 ULO missions in 1967 were earth orbiters.

Explorer 34, for example, was placed into an eccentric earth orbit in May. The data received from instruments aboard are being used to study sun-earth relationships. Particular emphasis is placed on how solar events influence the earth's environment during the period of increasing solar activity.

Three Intelsat 2 satellites established a multi-purpose intercontinental communications link during the year. Intelsats Pacific 1 and 2 were launched into a stationary orbit in January and September, respectively. The third Intelsat, Atlantic 1, was placed into a stationary orbit in March increasing the capability of the Atlantic communications link established by Early Bird in 1965. These missions were launched by KSC for the Communications Satellite Corporation.

To improve weather forecasting, three Environmental Survey Satellites were placed into orbits from the Western Test Range.

The first, ESSA 4, was launched in January. ESSA 5 followed in April and ESSA 6 in November. All are now providing daily global cloud pictures and central processing and analysis by weather bureaus throughout the world.

Two Applications Technology Satellites (ATS) were launched by Atlas Agena vehicles from Pad B.

Designed to improve space technology, the first spacecraft - ATS 2 - failed to achieve a desired orbit. However, it did succeed with some of its experiments.

The second spacecraft, ATS 3, was successfully launched in November and sent back full-disk color photographs of earth from a stationary orbit.

Each of these photographs has included portions of five continents: North and South America, Africa, Europe and Antarctica.

Basic solar physics investigations were continued with the launching of two more Orbiting Solar Observatories in March and October aboard Delta rockets. Designated OSO 3 and 4, they are designed to study the sun and its influences in the interplanetary space near the earth.

An Orbiting Geophysical Observatory (OGO 4), launched in a polar orbit in July, is providing scientists with another sensor packed laboratory equipped to study the sun's influence on the earth's environment.

The OGO program is expected to provide data helpful in improving weather prediction and communications, since both are affected by solar radiation.

Another spacecraft, Biosatellite 2, was launched in September to determine the effects of weightlessness and radiation on the early growth of insects, plants and bacteria. The spacecraft was successfully recovered after a 45-hour flight.

Scientists are hopeful that these experiments will enable them to predict the effects on astronauts during long flights into outer space.

The final ULO launch of the year was Pioneer 8 in December.

The spacecraft was rocketed into an extremely wide orbit about the sun, ranging from approximately 93 million to 102 million miles from the sun's surface. This is approximately the route traveled by earth as it also orbits the sun.

RELEASE NO: KSC-452-67

FOR RELEASE: Immediate

December 28, 1967

NASA TOURS SETS NEW
DAILY ATTENDANCE RECORD

KENNEDY SPACE CENTER, Fla. - - NASA Tours recorded the largest daily attendance to date yesterday when 5,268 bus patrons toured Kennedy Space Center and Cape Kennedy Air Force facilities.

A total of 28 buses, leaving at 10 minute intervals, completed a record 113 separate tours. Additional buses, plus temporary employees added during the holidays, were pressed into service by Trans World Airlines, which operates the Tours for NASA.

The highest previous daily attendance was set the day before, December 26, when 4,732 tour patrons were recorded. Tour officials also noted about a 10 percent increase over the same period last year.

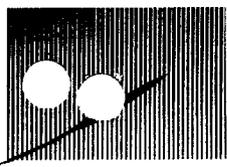
George N. Friedrich, manager of NASA Tours operations, pointed out that the recently-opened Visitor Information Center, starting point for the tours, is enabling persons to fill brief waiting time in an interesting manner. Lectures, current space films, lifelike exhibits and actual space hardware, are housed at the VIC.

A highlight of yesterday's activities was the arrival of the 5,000th bus patron of the day -- Ed Zirbel, of Athens, Alabama., a vacationing postal employee who is touring the Nation's east coast with his family. Zirbel said he was impressed by the historic and current facilities he saw during his two-hour bus tour.

The next major milestone, the 700,000th bus patron, is expected in early January.

- end -

KSC



KENNEDY SPACE CENTER, FLORIDA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

news release

2A.2, #50

RELEASE NO: KSC-450-67
FOR RELEASE: Immediate

December 27, 1967

KSC HOSTS DISTINGUISHED VISITORS IN '67

KENNEDY SPACE CENTER, Fla. -- Nearly 17,000 distinguished visitors toured the facilities at Kennedy Space Center and were briefed on the nation's space program during the past year.

Heads of state, ambassadors, congressmen and governors received closeup views of the Spaceport, along with a host of ministers, members of parliament, and corporation officials.

The King and Queen of Nepal, the Sultan of Brunei, and the Crown Prince of Laos showed their royal interest and pleasure in separate tours during 1967.

President Arthur da Costa e Silva, then president-elect, of Brazil, and Cevdet Sunay, President of Turkey, came to KSC as part of their good will visits to the United States. Lord Richard Casey, Governor-General of Australia; General Joseph A. Ankrah, Head of State of Ghana; and C. K. Yen, Vice-President of the Republic of China, were other top officials from foreign governments who toured the Spaceport facilities.

Many interested scientists and engineers visited the Kennedy Space Center as guests of NASA such as Dr. Gerhard Stoltenberg, well known West German space authority and Federal Minister of Scientific Research in his home country.

Ambassadors to this country from Brazil, China, Saudi Arabia, Sudan, Libya and Ghana also were briefed at the powerful Saturn V launch vehicles that will send astronauts to the moon.

In addition to the distinguished foreign visitors, Orville Freeman, U.S. Secretary of Agriculture, 25 U. S. congressmen, six governors and one cabinet member toured the Center and were briefed on the NASA programs and facilities.

###