Kennedy Space Center employees in the Electronic, Engineering and Instrumentation Systems Division have recently moved from the Cape into new quarters at the Spaceport's Launch Control Center. Left to right are Ellen Pordon, Bob Krause, Bill Glaser and Sue Whigham. More than 7,000 NASA contractor employees have moved to the Kennedy Space Center since January 1964.
KENNEDY SPACE CENTER--NASA's Kennedy Space Center has awarded a $39,165 contract to ITT Wire and Cable Div., 172 Sterling St., Clinton, Mass., for 59,000 feet of electrical cable to be used in facilities construction.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER--NASA's Kennedy Space Center has awarded a $92,414 contract to Microwave Associates, Burlington, Mass., for a RF converter system to be used in launch operations.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER--The John F. Kennedy Space Center, NASA, has awarded a $47,010.30 contract to Oil Capital Valve Co., Inc., 7400 East 42nd Place, Tulsa, Okla., for a quantity of manually operated butterfly type valves to be used in a mobile cleaning system at Launch Complex 39.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER--The John F. Kennedy Space Center, NASA, has awarded a $42,110.40 contract to International Harvester Co., 1707 L St., N.W., Washington, D.C., for a tractor truck required by the Propellant Systems Labs for cleaning cross-country hard lines in support of KSC/NASA and Air Force Eastern Test Range operations.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER--NASA's John F. Kennedy Space Center has awarded contracts totaling more than $131,000 to two Massachusetts firms.

ITT Wire and Cable Div., 172 Sterling St., Clinton, has received a $39,165 contract to supply electrical cable in facilities construction.

A $92,414 pact has been awarded to Microwave Associates, Burlington, for a RF converter system to be used in launch operations.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major launches from Cape Kennedy.

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KENNEDY SPACE CENTER--The John F. Kennedy Space Center, NASA, has awarded a $58,696 contract to Western Filter Co., Inc., 13527 South Normandie Ave., Gardena, California, for four water filters and spare parts to be used in a mobile cleaning facility at Launch Complex 39.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER -- One of Florida's major attractions -- the nation's only operational Spaceport -- is now open to the public on Saturdays as well as Sundays.

Nearly 100,000 visitors have toured the Kennedy Space Center since it opened its gates to motorists last January. Response to the free tours has been so enthusiastic, in fact, NASA officials have decided to keep the Center open all weekend, rather than just on Sundays.

Hours for the new Saturday tours are from 10 a.m. to 4 p.m., the same as on all national holidays. Sunday hours are from 1 to 4 p.m.

Visitors from every state in the country as well as from many foreign nations have seen the spectacular facilities from which America's major manned space exploration programs will be launched.

One of the most popular features of the tour is a drive around the 525-foot-tall Vehicle Assembly Building -- the world's largest structure. It is in this building that the Saturn V/Apollo moon rockets will be assembled for flight.

Other highlights include a close look at the 445-foot mobile launchers, on which the moon rockets will be mounted, and a drive past the huge, 5.5 million pound crawler-transporters, which will haul the mobile launchers and rockets from the assembly area to the launch pads.

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In the Spaceport's industrial area, also included on the tour, is the Kennedy Space Center's Headquarters Building, and the Manned Spacecraft Operations Building, home of astronauts in training for two-manned Gemini flights.

The entire tour takes about one hour, and photographs are permissible. Brochures explaining the sites to be seen and outlining space goals, are given to each motorist entering the center.

The Spaceport is located off US highway 1 between Titusville and Cocoa.
KENNEDY SPACE CENTER -- Operation "Big Move," the transferral of Kennedy Space Center employees from scattered sites at Cocoa Beach, the Cape and Huntsville, to new facilities at the Spaceport on Merritt Island is now more than half completed. 

As of this week more than 7,000 civil service and contractor employees were settled in their new homes. By the end of fiscal year '67 the move will be completed and 11,500 office employees will be permanently located at the Spaceport. The total work force will eventually be about 17,000.

Bill Calhoun, Chief of KSC's Plant Layout section, Base Operations, is Chairman of the Move Committee. He replaced Ray Nething, who handled the first phases of the moves.

Calhoun said the move of personnel into the industrial area was virtually complete. The bulk of people yet to be relocated will move into the Vehicle Assembly Building complex.

"Considering the immensity of such an operation," Calhoun said, "things have run pretty smoothly. We've had fine cooperation from everyone."

Most moves have been physically handled by TWA personnel, although commercial movers have been called in for large operations. Most moves are made on the weekends so normal Center operations won't be disrupted.

The first wave of employees began occupying quarters in the Communications Operations Buildings in January 1964. Over this past summer more than 1,700 more
employees have been relocated in the KSC Headquarters Building, including Center Director, Dr. Kurt H. Debus.

On recent weekends KSC Launch Vehicle Operations and Launch Support Operations Division people have been moving into the VAB complex area, occupying new quarters in the low bay, the Launch Control Center and in equipment shops.

The major moves still to be made primarily involve Saturn V stage contractors who will use the high bay facilities of the VAB.

Calhoun said despite the thousands of pieces of equipment and furniture that have been moved, there have been surprisingly few lost articles.

One of the most difficult moves involved delicate instrumentation equipment for the KSC Information Systems Building. For this, special vans with built-in shock absorbant systems were used.

As many as 280 people have been moved over one weekend, Calhoun noted.

The Move Committee is an organization set up to coordinate all moves, and includes representatives of Base Operations, Facilities, Communications, Resources and Supply in addition to a member of each large KSC element who serves as coordinators.

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KENNEDY SPACE CENTER -- Dr. Kurt H. Debus, Director, has presented three Presidential citations to employees for cost reduction suggestions they submitted that have resulted in savings to the Government of more than $10,000 a year.

They were the first such awards ever made here.

The citations, signed by President Lyndon Johnson and NASA Administrator James E. Webb, were presented to Mrs. Fae Burd, Joe Moxley, and James Russo, representing KSC's Photo Systems and Publications Branch.

Mrs. Burd was cited for her suggestion of using a letter request for procurement quotation, which resulted in a simplified procedure in handling procurement actions. The resulting savings in time and paperwork will total more than $10,000 annually.

Moxley, of KSC Communications, was recognized for his cost reduction idea resulting in a change of transmitting data from a New Orleans site to one in Cocoa, using Western Union facilities.
The estimated annual savings from his idea are about $45,000.

Russo represented the Center's Photo Systems and Publications Branch. The branch received the award for numerous cost reduction ideas resulting in monetary savings of more than $800,000.

Major contributors within the branch were Dick Murphy, Ronald Crain, and Bud McLearn.

The citations read: "In special recognition of an outstanding contribution to greater economy and improvement in Government operations during the 10th anniversary year of the Federal Incentive Awards program.

The awards were presented in commemoration of this anniversary.

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KENNEDY SPACE CENTER--It was a low point in the U.S. space program. The last Vanguard had unceremoniously blown to pieces three feet over its launch pad, and American rocketry prestige had taken a beating.

Now another Vanguard--test vehicle four--stood ready for flight. It was St. Patrick's Day 1958, and hopes were again buoyed.

Early the morning before, only hours from liftoff time, a short, barrel-chested West Virginian, toting an odd assortment of apparatus, checked through the gates of Launch Complex 18, and sauntered up the service structure.

At each level he stopped and carefully, methodically inspected the rocket stages; probing here, checking there, until he was satisfied.

Time was growing short when he noticed something on the second stage. On closer examination he found a tiny screw that had somehow chewed its way into the underside of a fuel tube.

His discovery in the 11th hour halted the launch for a day, until repairs could be made.

The vehicle worked perfectly the next day, launching Vanguard I into orbit. It is, in fact, still circling the Earth today, and will continue to for years to come.

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The man was Mason R. Comer, Jr., and he has one of the most unusual jobs in NASA. Although his official title is technical staff engineer, Comer is a roving trouble shooter for the Kennedy Space Center.

Since he began work at Cape Kennedy nine years ago, he has, through persistent, detailed inspections, found more than 150 major faulty items on launch-ready vehicles and spacecraft, many of which, if left unchecked, would have aborted or scrubbed the mission.

He has attained such a reputation, in fact, that his boss, KSC Assistant Director for Unmanned Launch Operations, Robert H. Gray, depends on his report, making sure Comer is satisfied everything is right, prior to allowing a launch to proceed.

Comer works by no set rule book or specifications sheet, but he has an uncanny perceptive knack for spotting possible trouble areas among the hundreds of thousands of parts that make up today's complex launch vehicles.

Because so many transistors and diodes and various other items are now made too small for the human eye to perceive any faults, he works a great deal with microscopes.

One unitron metallurgical scope, for instance, can magnify objects 2,200 times in photographs.

Other unusual equipment includes an electronic stethoscope, a flexiscope for "seeing around corners," leakage detectors and an X-ray machine.

Comer has two laboratories at the Cape for his work.
Most of his time is devoted to launch vehicles--Deltas, Atlas/Agenas and Centaurs. When a booster arrives at the Kennedy Space Center he tags along during the contractor's receiving inspection, noting things that might be overlooked. He carefully follows the vehicle through each important checkout test, and rides the countdown out in the blockhouse.

"I never get to see the rockets I work on," he shrugs.

Occasionally, his unique skills are called upon during the final count. On a recent Ranger launch, for example, trouble popped up, and he hustled out to the pad to help find the source while the count was held.

He found a faulty battery that wasn't properly venting potassium hydroxide. The launch was delayed a day while repairs were made, but the Ranger scored a brilliant success.

Comer determined the reason for the trouble, and recommended corrective measures that could preclude such a defect occurring again. Action was taken and the trouble has never recurred.

On a Tiros satellite he found a wire that had been brushed loose in last-minute cleaning; on a Relay spacecraft he pointed out possible problem areas down to tiny inner cablings; and on the Syncom satellite, he correctly predicted a certain type plastic would fail under stress. His string of accurate diagnoses is unlimited.

He can instinctively spot minute solder flakes, stray metal chips, broken wires, brush bristles or a hundred other defects that would escape less trained eyes.
Comer relies on 20 years of experience in the rocketry business to help him ferret out such elusive flaws. And, during an inspection, if he isn't sure of something or doesn't understand it, he never hesitates to call someone over and have it explained to him.

He began his aerospace career in 1945 while working on guided missiles with the Willmotte Company in Washington, D.C. Following completion of a radio engineering school, he worked on Aerobee experimental rockets with the Naval Research Laboratory, and later transferred to the Viking rocket project at White Sands, New Mexico.

Through the years he got to know rocket components inside and out, and in 1956 joined the Vanguard team at Cape Canaveral, later transferring to NASA when it was organized.

Where once he was eyed with suspicion by technicians and engineers as he questioned work on this part and that, he has now earned a reputation as a trouble shooter par excellence. He is, in fact, often consulted by other agencies to solve various problems bugging their vehicles.

Comer lives at 1249 Seminole Drive, Satellite Beach, with his wife Edith, and their four children.

"My work is unorthodox," he admits. "I don't have any set checklist. I approach each problem with an open mind and try to narrow down possible causes until it is solved."

That he has been successful in his efforts is borne out by a glance at the launch records of the vehicles he's worked on. The Delta's, for example, is one of the best ever accomplished.

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KENNEDY SPACE CENTER—The design of a Visitor Information Center for the national Spaceport has been selected by the John F. Kennedy Space Center, NASA.

Five architectural firms participated in the design competition and submitted models and drawings to KSC last week. A panel appointed by the Center Director, Dr. Kurt H. Debus, examined the proposals and reported findings to Dr. Debus Sept. 17.

Dr. Debus concurred in the Board’s recommendation. The winning design is the work of Welton Becket, 300 Park Avenue, New York City.

Becket’s design offers maximum flexibility. It is modular and can be expanded without interruption to the visitor program if the attendance requires. Space is provided for exhibits, an auditorium, canteen, administrative offices, mechanical equipment, and rest rooms. A major function of the structure will provide loading facilities for escorted bus tours of the Space Center.

The architect proposes to site the facility on an island created for the purpose on the south side of NASA Parkway which connects with U.S. Highway 1 on the mainland. Ample space would be available for large displays outdoors, such as launch vehicles.
A study made for KSC by the National Park Service earlier this year predicted
2,000,000 visitors by 1967 and 3,000,000 by 1970.

The other architects who participated in the competition are Architects Collabora-
tive, 63 Brattle St., Cambridge, Massachusetts; Norman M. Giller & Associates, 975
41st St., Miami Beach, Florida; Herbert H. Johnson Associates, 55 Brickell Avenue,
Miami, Florida; and Charles Luckman Associates, 9220 Sunset Blvd., Los Angeles,
California.

The panel was chaired by A. F. Siepert, Deputy KSC Director, and included
two nationally known architects selected by the American Institute of Architects. They
are Hugh A. Stubbins, Jr., of Cambridge, Massachusetts, and Arthur G. Odell, Jr.,
of Charlotte, North Carolina. Other Board members were William E. Lilly, Director
of Manned Space Flight Program Control in NASA Hq.; A. H. Bagnulo, Assistant KSC
Director for Facilities; and G. L. Harris, KSC Public Affairs Chief.

The panel was unanimous in its findings.

Dr. Debus announced the models will be on display within the Space Center for
several days and opportunity will be given the press to view them tomorrow.

Arrangements are being made also to show the winning model in the major
communities in the area.

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KENNEDY SPACE CENTER -- The 100,000th visitor to the Kennedy Space Center drove through the Spaceport Saturday morning.

Fred Lord, a newspaper reporter from Richmond, Indiana, got the VIP treatment when he drove up to the gate at 10 in the morning. He was accompanied by his wife, his daughter, Mrs. Judy Johnson, and four young granddaughters, Susan, Linda, Laura and Tammy.

Mrs. Johnson's husband, Bill, is employed by Douglas Aircraft on the Saturn IB program.

The Lords were greeted at the gate by Gordon L. Harris, KSC Public Affairs Officer, who briefed them on the tour. They were met coming out by several city officials of Titusville, including newly elected city councilman Ben Hursey, the Center's Personnel Chief.
"The expanse of this whole area is almost unbelievable," Lord said. "I never realized the Spaceport was so large."

The 100,000th party was given a complete tour, with stops at: the KSC Headquarters Building to view Visitor Information Center models; the Manned Spacecraft Operations Building, to see the altitude chambers in the high bay area; the Launch Control Center and low bay area of the Vehicle Assembly Building; the crawler-transporter and mobile launcher area; and Launch Complex 39's newly completed Pad A.

Since the popular Spaceport tour was opened to the public last January 3, an average of more than 2,000 tourists a week have driven through the Kennedy Space Center to view close up the facilities NASA will use to send astronauts to the moon later this decade.

Visitors have come from every state in the nation and from dozens of foreign countries as far away as Yugoslavia and Japan.

Spaceport tours are open on Saturdays and holidays from 10 a.m. to 4 p.m. and on Sundays from 1 to 4 p.m.
KENNEDY SPACE CENTER--KEYS TO THE SPACEPORT....Miss Lynda Johnson, shown with her grandparents Mr. and Mrs. Fred Lord, is made an honorary member of the Spaceport during their visit last Sunday to the Kennedy Space Center. The Lords, visiting from Richmond, Indiana, received the red-carpet treatment when Lord checked through the Visitors' Information Center as the 100,000th official visitor since the Spaceport was opened to tourists last January.

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KSC-237-65
For Release: IMMEDIATE
Please Credit KSC/NASA
Cape Kennedy, Florida — Mr. Fred Lord, Richmond, Indiana, was Kennedy Space Center's 100,000th visitor. Shown in the photograph with Mr. Lord is his wife, Irene and granddaughter Lynda. Mr. and Mrs. Lord were accompanied on their visit by their daughter, Mrs. Judy Johnson, from Tuscawilla, Florida, and grandchildren Susan, Lynda, Laura, and Todd. Mr. Gordon Harris, Chief, Public Affairs Office, KSC, was their escort during the visit.
KENNEDY SPACE CENTER -- Seven key management employees at the Kennedy Space Center, and one NASA Headquarters official have been presented a group achievement award by NASA Administrator James E. Webb.

Awarded were Joseph A. Pecor, John Roten and Byron Driskill, Jr. of the Center's Procurement Division; John Buckley, Edgar Manton and Robert Gorman of Launch Support Operations; James Battles of Launch Vehicle Operations; and Warren Linnerooth of NASA Headquarters.

Their work was in connection with the selection of a contractor and award of a contract to provide launch support services at the Kennedy Space Center. The contract was eventually awarded to the Bendix Corporation.

Normally, with a contract of this size, one firm is singled out for final contract negotiations by Mr. Webb on the basis of source evaluation board reports.
In the instance of this contract, however, the field was narrowed down to six "finalists", and because they were so closely ranked, Webb asked the board to negotiate with all six.

Webb was eventually presented with six complete contract packages from which to choose. In his memorandum of selection he used the following words "Quote as Marked".
KENNEDY SPACE CENTER..... The National Aeronautics and Space Administration will consolidate its unmanned launch activities at both the Eastern and Western Test Ranges under the John F. Kennedy Space Center, NASA, effective today.

At Cape Kennedy, Fla., the Launch Operations Division of the Goddard Space Flight Center will become an integral element of the Kennedy Space Center which is directed by Dr. Kurt H. Debus. Robert Gray will be Assistant KSC Director for Unmanned Launch Operations.

At the Western Test Range, Lompoc, Calif., the part of the Goddard team permanently assigned to that range and the NASA Pacific Launch Operations Office which logistically supported it will also be placed under KSC and supervised by Gray.

Thus, KSC will supervise checkout and launch of all NASA launch vehicles except the solid propellant Scout rockets which are developed and launched by

(more)
the Langley Research Center, Hampton, Va., at Wallops Station, Va., and the Western Test Range.

"We are proud to welcome this distinguished launch organization to the KSC," Dr. Debus commented. "Under the skillful management of Robert Gray, the Goddard team and its associated industrial contractors has compiled an outstanding record in support of NASA's unmanned investigations of space. The addition of their exceptional competence in both launch vehicle and spacecraft preparation broadens the Kennedy Space Center's responsibilities to include all of NASA's launch vehicles."

With the consolidation, KSC will carry out the following unmanned missions: lunar and planetary missions for the Jet Propulsion Laboratory; scientific, meteorological and communications satellites missions for Goddard; Atlas-Centaur and Atlas- and Thor-Agena flights for the Lewis Research Center; lunar missions for Langley; and interplanetary and scientific satellite missions for the Ames Research Center. These missions will be launched by the new unmanned launch directorate.

The new KSC unit will include three divisions: Medium Launch Vehicles, Space Vehicle Technical Support, and Western Test Range Operations. The Delta, Agena and Centaur vehicles involved all are managed by Launch Vehicle and Propulsion Programs of NASA's Office of Space Sciences and Applications. (more)
Gray's organization will continue to function as an integral unit but within the overall Kennedy Space Center launch organization which has as co-equal elements launch vehicle operations, instrumentation, and manned spacecraft.

This move is another step in NASA's planned consolidation of large groups operating at one geographical location under a single field center. Earlier this year, the manned spacecraft organization previously established by the Manned Spacecraft Center at Cape Kennedy became part of KSC. Its chief, G. Merritt Preston, became Deputy Director for Launch Operations.

The Oct. 1 transfer of staff and functions will include 107 Civil Service personnel of the Goddard launch operations team and 22 more members of the team from the Pacific Launch Operations Office moving under KSC. These 129 Civil Service personnel are responsible for a combined Government-industry operation involving more than 1600 industrial contractor personnel at the Eastern and Western Test Ranges.

Goddard Launch Operations has compiled an impressive record of 47 successes out of 55 launches assigned to it.

Originally a 20-man unit called the Vanguard Operations Group, the team was transferred from the Naval Research Laboratory to NASA when that agency was founded in October, 1958. Its first launch for NASA was on February 17, 1959 -- the Vanguard II satellite to study cloud cover.

(more)
The Goddard team has launched more than half of all NASA satellites. Rangers, Mariners, Tiros, Echos, Explorers, Nimbus, Relays and Syncoms are among the payloads launched by this group. Also launched by Goddard was the world's first privately owned satellite, the American Telephone and Telegraph Co.'s Telstar, and the world's first commercial satellite, the Communications Satellite Corp.'s Early Bird.

Launch vehicles fired by the Goddard team include the Delta which has achieved successes in 30 out of 33 liftoffs. The three-stage Delta had 22 straight orbital successes and in 1963 Goddard's Delta launch team received NASA's Group Achievement Award.

Atlas-Agena launches have made possible the longest flights in space history. Mariner IV photographed Mars in July after a 312 million mile flight. Mariner II flew near Venus in 1962 and three Ranger spacecraft made close-up photographs of the Moon.

Centaur was the first known rocket launched using high energy liquid hydrogen fuel in its upper stage. In addition, the Goddard team launched two Atlases for reentry tests and two Thor ballistic flights carrying Echo communications satellites -- all successfully.
KENNEDY SPACE CENTER -- Two Kennedy Space Center organizations received NASA Group Achievement Awards at NASA's Annual Honor Awards Ceremony in Washington, D.C. today. The awards, presented by Dr. Robert C. Seamans, Jr., went to the Launch Support Equipment Engineering Division (LSEED) and to the operations team in the Manned Spacecraft Center's Florida Operations who developed the Acceptance Checkout Equipment for the Apollo Spacecraft. MSC Florida Operations is now an element of the Kennedy Space Center.

LSEED, under the leadership of Theodor A. Poppel, received its award for the design, development, and checkout of launch support equipment for the Saturn I. This was a particularly significant achievement, the award stated, because of the unprecedented size of the Saturn I and the impressive launch record of 10 consecutive successes.

The Florida Operations of the Manned Spacecraft Center became a part of the Kennedy Space Center earlier this year. The award winners from that group were cited for the development of Acceptance Checkout Equipment (ACE) for the Apollo spacecraft. This equipment provides a faster and more flexible means of total preflight testing of the Apollo. G. Merritt Preston, Kennedy Space Center Deputy Director for Launch Operations, and Walter E. Parsons, Chief of the Checkout Equipment Division, received the award from Dr. Seamans.
Dr. Kurt H. Debus, Director of the Kennedy Space Center, attended the presentations and extended congratulations and a "well done" to both groups.

Dr. T. Keith Glennan, who was the first NASA Administrator, gave the ceremonial address. Dr. Glennan is now president of Associated Universities, Inc.

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KENNEDY SPACE CENTER - Total employment in NASA launch operations at Cape Kennedy and the Kennedy Space Center has increased by 567 since June 30, 1965 despite a reduction of more than 400 in construction employment.

Completion of several major facilities on the spaceport has caused reductions in the level of construction manpower, but this was more than offset by the phased increase in stage and support contractors.

In the support field Trans World Airlines, KSC's base contractor, added more than 100 employees. RCA Service Company, providing technical communications, increased by 50. Other increases were reported by Ling Temco Vought, information services contractor, and General Electric. Bendix, contractor for launch support, added 147 and the Bechtel Company employed 141 more in special maintenance and modifications work.

The prime contractor for the Saturn 1B booster, Chrysler Corporation, increased its staff by 180. Douglas Aircraft, supplying stages for both the Saturn 1B and the Saturn V vehicles, added 91. Boeing, the prime contractor for Saturn V booster, has employed 125 more since June 30.
KENNEDY SPACE CENTER--Contracts totaling over half a million dollars have been awarded by NASA's John F. Kennedy Space Center for support of the Center's Space Operations.

A variety of activities were covered by the contracts which affected firms located in several states.

Under provisions of the Government's policy to encourage small business participation, contracts were awarded to Akwa-Downey Construction Co., 2100 W. Atkinson Ave., Milwaukee, Wisc.; and Astrodata, Inc., 240 E. Palais Road, Anaheim, California.

Akwa-Downey received two pacts totaling $80,043 for construction work at the Space Center which included an addition to the Support Building at Launch Complex 37, modification of the Paint, Oil and Lubrication Building at Launch Complex 37 and modification of the electrical distribution system between Launch Complexes 34 and 37. The company also will refurbish two flame deflectors at Launch Complex 34.
Astrodata, Inc. received a $208,800 contract for a doppler digitizing system that will be used to improve the quality of data received from Saturn launch vehicles.

Other contracts were awarded as follows:

Ampex Corp., 1980 N. Atlantic Ave., Cocoa Beach, Fla., received $27,545 for a magnetic tape recording and reproducing system which will be used in the Center's Information Systems facility for support of the Saturn IB program.

A $15,525 award went to the M & M Welding Works, Inc., 806 Tallyrand Ave., Jacksonville, Fla., for refurbishment of three refueling trailers used to remove contaminated rocket fuel from space vehicles.

Lyon Metal Products, Aurora, Ill., received a $35,110 contract for various cabinet and storage equipment necessary to equip the Center's Plant and Maintenance Building.

An oscillograph recording system and accessories will be provided by Honeywell, Inc., Denver Division, 4800 E. Dry Creek Road, Denver Colo., under a pact amounting to $39,262. The recording system will be installed at Launch Complex 39 to check out a vibration data acquisition system and collect measurement data during prelaunch and launch operations for the Apollo-Saturn V lunar rocket.

Two contracts totaling $38,356 were awarded to Brown Engineering Co., Inc. 300 Sparkman Dr., Huntsville, Ala. Under terms of the contract, the company will furnish an assortment of photographic and television equipment which will be used to support the Saturn IB program.
Cooper-Trent, Inc., 2601 Wilson Blvd., Arlington, Va., was awarded a contract amounting to $44,119 for drafting tables and drafting machines. The equipment will be utilized by contractors supporting the Apollo Lunar Landing Program.

Precision Instrument Co., 3170 Porter Dr., Palo Alto, Calif., received a $10,517 contract to provide a 14-channel recording and reproduction capability for tape dubbing at the Center’s Information Systems facility.

A final award of $11,550 went to Paige Electric Corp., 10 Commerce Court, Newark, N.J., for the fabrication of electrical cables at Launch Complexes 34 and 37. The cables will be used to activate the Saturn IB space vehicle at launch time.

The Kennedy Space Center operates the nation’s Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER, FLA.—Honeywell Inc. of 4800 E. Dry Creek Road, Denver, Colorado, has been awarded a supply contract totaling $39,262 by NASA's John F. Kennedy Space Center.

Under terms of the contract, Honeywell will furnish a recording system to be installed at Launch Complex 39 that will be used to check out a vibration data acquisition system and collect measurement data during prelaunch and launch operations for the Apollo-Saturn V lunar rocket.

The Kennedy Space Center operates the nation's Spaceport at Merritt Island, Florida, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER, FLA.--Akwa-Downey Construction Co. of 2100 W. Atkinson Ave., Milwaukee, Wisc., has been awarded two contracts totaling $80,043 by NASA's John F. Kennedy Space Center.

The Akwa-Downey awards were made in conjunction with a Government policy designed to encourage small business participation in the nation's space activities.

Under provisions of the contract, Akwa-Downey will be responsible for construction work at the Space Center which will include an addition to the Support Building at Launch Complex 37, modification of the Paint, Oil and Lubrication Building at Launch Complex 37 and modification of the electrical distribution system between Launch Complexes 34 and 37.

Akwa-Downey also will refurbish two flame deflectors used in launch operations at Launch Complex 34.

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KENNEDY SPACE CENTER, FLA.–Astrodata Inc. of 240 E. Palais Road, Anaheim, California, has been awarded a $208,800 supply contract by NASA's John F. Kennedy Space Center.

Astrodata's award was made in conjunction with a Government policy designed to encourage small business participation in the nation's space activities.

Under provisions of the contract, Astrodata will supply a doppler digitizing system that will improve the quality of data received from Saturn launch vehicles by receiving sign waves and translating them into a form that can be stored on computer tapes.

The Kennedy Space Center operates the nation's Spaceport at Merritt Island, Florida, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER, FLA.--Brown Engineering Co. of 300 Sparkman Dr., Huntsville, Alabama, has been awarded two supply contracts totaling $38,356 by NASA's John F. Kennedy Space Center.

Under terms of the contract, Brown Engineering will furnish an assortment of photographic and television equipment that will be used to support the Saturn IB Program.

The Kennedy Space Center operates the nation's Spaceport at Merritt Island, Florida, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER, FLA.--Cooper-Trent, Inc. of 2601 Wilson Blvd., Arlington, Va., has been awarded a supply contract totaling $44,119 by NASA's John F. Kennedy Space Center.

Under terms of the contract, Cooper-Trent will furnish a variety of drafting tables and drafting machines to be utilized by contractors supporting the Apollo Lunar Landing Program.

The Kennedy Space Center operates the nation's Spaceport at Merritt Island, Florida, and conducts major space launches from Cape Kennedy.

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Under terms of the contract, Precision Instrument Co. will furnish a 14-channel recording and reproduction capability for tape dubbing at the Center's Information Systems facility.

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KENNEDY SPACE CENTER, FLA.--M & M Welding Works, Inc., 806 Tallyrand Ave., Jacksonville, Fla., has been awarded a contract totaling $15,525 by NASA's John F. Kennedy Space Center.

The firm will refurbish three refueling trailers used to remove contaminated fuel from space vehicles.

The Kennedy Space Center operates the nation's Spaceport at Merritt Island, Florida, and conducts major space launches from Cape Kennedy.

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KENNEDY SPACE CENTER -- The NASA Marshall Space Flight Center will ship the instrument unit for the first Saturn IB launch vehicle to the NASA Kennedy Space Center Saturday aboard the NASA barge, Palemon. The Palemon is expected to arrive at Cape Kennedy about 10 days after departure.

International Business Machines Corporation assembled the instrument unit at its Huntsville plant under the supervision of the Marshall Center, which designed the unit.

IBM conducted a dedication of its new Huntsville plant and a symbolic "turnover" of the Saturn IB instrument unit yesterday at the Sparkman Drive Facility.

Marshall Center and IBM are jointly responsible for the 21.7 foot diameter ring-shaped instrument unit and other early units, with IBM gradually assuming overall responsibility for assembling and testing later units.

The instrument unit is a 3-foot high "wafer" which is the "brain nerve center" of the Saturn vehicle. The unit weighing some 4,000 pounds, will be located immediately above the second stage of the Saturn IB vehicle. The instrument unit provides commands for engine gimbaling, inflight sequencing of engine propulsion system, staging operations, telemetry and all primary timing signals.
Components are fastened on panels mounted to the inside perimeter of the instrument skin. The Saturn IB unit is essentially the same instrument section which will be used on later Saturn V launch vehicles.

The first Saturn IB launch vehicle is scheduled to be launched from the Kennedy Space Center early next year.
KENNEDY SPACE CENTER--John P. Lacy has been appointed acting Chief Counsel for the John F. Kennedy Space Center. Lacy succeeds Charles L. Longacre who recently resigned from government service.

As acting Chief Counsel, Lacy will provide legal advice and assistance to the Center Director and to all organizational elements of KSC.

He comes to the Kennedy Space Center from NASA Headquarters in Washington where he served since May 1962 in the Office of Chief Counsel.

From 1957 to 1962, he was an attorney in the Office of General Counsel for the Navy's Bureau of Weapons. Before that, he spent eight years in private law practice in Chicago and New York.

A Law graduate of Virginia University in 1948, Lacy also holds a bachelor's degree from Harvard University.

After receiving his degree from Harvard, he joined the United States Navy, serving aboard a destroyer and later qualifying as a Navy carrier pilot.

Lacy will live in Cocoa Beach with his wife, Alice, and their four children.

-end-
KENNEDY SPACE CENTER--Procurement officers from NASA headquarters and from field centers all across the country will hold their annual meeting at the Kennedy Space Center next week.

The three-day meet, which runs next Tuesday through Thursday, will feature speeches from NASA headquarters personnel, briefings on the latest procurement procedures and panel discussions on mutual ideas and problems.

KSC Director Dr. Kurt H. Debus will welcome the group Tuesday morning and Center Procurement Chief M.E. Haworth will give the opening address.

Keynote speaker will be William Rieke, Office of Industrial Affairs, Deputy Associate Administrator, NASA Headquarters.

The procurement officers meet at a NASA center annually. A highlight of this year's affair will be a complete tour of the Kennedy Space Center next Wednesday.

Haworth has overall responsibility for coordinating the meeting, and arrangements are being handled by Tom Davis, KSC industry advisor, and Ed Johnson of the Public Affairs Office.

-end-
KENNEDY SPACE CENTER--Preparations were continuing at the Kennedy Space Center this week to prepare Gemini 7 and Gemini 6 for an unprecedented one-two space rendezvous mission, as announced by President Lyndon B. Johnson.

The Gemini 7 spacecraft was erected at Launch Complex 19 last Friday, and pre-mate systems tests are being run this week on both the spacecraft and the launch vehicle.

The Rendezvous and Recovery Section has been removed and sent to McDonnell Aircraft Corporation in St. Louis where several changes will be incorporated to meet new mission requirements.

Meanwhile, the Gemini 6 spacecraft has been taken to the Pyrotechnic Installation building at the Center.

"It was completely tested and in a flyable condition, so there isn't too much that will have to be done to it," said Wiley Williams, Manager of the Gemini/LEM operations.

Williams said the spacecraft seats have been removed and are being reserviced, and there were a few other items that would need work, but that, essentially, it can be made flight ready prior to being taken back to Launch Complex 19 as soon as Gemini 7 has been launched.
"Our most critical period will be after Gemini 7 has gone," Williams noted. "We are planning for only a few days 'turn-around' time on the pad. That is, we hope to erect the Gemini 6 spacecraft and launch vehicle, check them out fully at the pad and launch within the 14-day flight period of Gemini 7."

The revised mission plan calls for Gemini 6 astronauts Wally Schirra and Tom Stafford to rendezvous in space with Gemini 7 pilots James Lovell and Frank Borman.

Such a mission will push KSC and contractor personnel to maximum effort. Williams said it will require a 24-hour-a-day, seven-day-a-week operation, beginning on the day of the Gemini 7 Launch.

"Barring unforeseen problems," Williams said, "we feel there's no reason why this schedule, tight as it is, cannot be met."

The major question mark will be the extent of pad damage from the Gemini 7 blastoff. Assuming it is light, as has been the case on most previous launches, the Gemini 6 launch vehicle can be erected later in the same day as the Gemini 7 liftoff, and the new spacecraft can be put up the next day. This is required in order to meet the short-time turn-around commitment.

KSC complex engineer Jim Ragusa said such routine repair jobs as repainting and replacing liftoff switches can be done with the Gemini 6 launch vehicle in place on the pad.

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Williams said the schedule for Gemini 7 called for an electrical mating between spacecraft and launch vehicle after the modifications for the rendezvous mission have been added. A "hard-mate" will follow this, along with an all-systems check, and a simulated countdown and launch.

-end-
KENNEDY SPACE CENTER -- The 7.5 million-pound thrust Saturn V launch vehicle is being considered by the National Aeronautics and Space Administration for its planned Voyager program of unmanned planetary exploration beginning with Mars missions in 1971.

Saturn V is currently under development for the Apollo manned lunar landing program.

Voyager is being planned to ultimately carry heavily instrumented landing capsules to the planets to study their surface characteristics and to search for extraterrestrial life. Voyager is being undertaken in procurement phases with preliminary design and system design phases to be completed before a commitment is made to Flight Hardware Development.

NASA has considered developing a Saturn I-B/Centaur launch vehicle combination to launch Voyager spacecraft, but with its much greater thrust the 3-stage Saturn V would give considerable more flexibility to planning early Voyager missions. It would also provide the launch vehicle capability at the beginning of the Voyager program which would be required by future missions.

- more-
Under this concept, a single Saturn V vehicle would launch 2 spacecraft on missions to orbit Mars in 1971.

The role the 1971 missions will play in the evolution of the landing capsule is under study, with the first capsule missions carrying scientific experiments being contemplated no sooner than 1973. The findings by Mariner IV of a more rarefied Martian atmosphere than expected will be a major consideration in scheduling entry capsules on early Voyager missions for engineering development and more precise determination of the atmospheric conditions.

Engineering test flights of the spacecraft systems during 1969 are no longer planned; however, extensive ground tests are projected prior to 1971.

Under the phase procurement program, three industrial firms—the Boeing Co., General Electric Co., and TRW Systems, Inc.—have completed preliminary designs for the spacecraft system and one will be selected for system design.

Saturn V is being developed under direction of NASA's Marshall Space Flight Center, Huntsville, Ala. Its first test flight will be in 1967. Saturn V will be launched from Kennedy Space Center, Fla.

Project responsibility for Voyager has been assigned by NASA's Office of Space Science and Applications to NASA's Jet Propulsion Laboratory, Pasadena, Calif.

-End-
KENNEDY SPACE CENTER--James D. Phillips, an engineer with the Launch Support Equipment Engineering Division, has been awarded the $250 first prize in the 1965 Steel Casting Design Contest sponsored by the Steel Founders' Society of America.

Phillips' entry describes a steel casting measuring 117 by 117 by 76 inches, used as a base for Saturn V holddown arms on the Mobile Launcher. The Saturn V launch vehicle will be used to land astronauts on the lunar surface under the Apollo program.

The casting, with an estimated poured weight of 45,500 pounds and an estimated machined weight of 35,000 pounds, supports the Saturn V space vehicle on the Mobile Launcher and serves as a base for the release mechanism.

Design of the base as a steel casting saved an estimated 50 per cent of production cost for a fabricated plate structure.

Phillips' design topped more than 200 entries. The 1965 Steel Casting Design Contest was open to individuals or groups involved in the selection of engineering materials for original designs or conversions.

Purpose of the contest was to promote greater use of steel castings by calling attention to design advantages.

-more-
Phillips joined the Kennedy Space Center in February 1962. He is a graduate engineer of the University of Alabama, and works specifically with experimental ground equipment facilities.

He and his wife, Johnnie, and their two sons, Richmond, 12, and Samuel, 8, live at 1560 N. Lilac Circle, Titusville.
CRAWLER-TRANSPORTER STATUS REPORT

KENNEDY SPACE CENTER. . . Test results were received today by the Kennedy Space Center which confirmed the design of a new bearing system for the Crawler Transporters. The Crawler Transporters will carry the Saturn V/Apollo lunar exploration vehicle from the Vehicle Assembly Building to the launch site at Complex 39.

Tests on bearings were conducted at the Marshall Space Flight Center for the Kennedy Space Center to determine wear rates, load capacity, and friction under extreme transporter operating conditions. These tests have been in progress for several weeks at Huntsville, Alabama. The load and endurance tests have confirmed the suitability of a leaded bronze sleeve bearing used with the existing automatic lubrication system.

The new bearing system design replaces the original single tapered roller bearings with separate sleeve bearings for radial and thrust loads. The new design is a joint effort of engineers of NASA and the prime contractor, Marion Power Shovel Company, with extensive use of prominent consultants.

(more)
These new bearings will have load carrying capacities of more than three times that of the original bearings. The new bearings will fit within the space that remains when the old bearings are removed. Field machining is not required with this design.

The slightly increased friction in the traction system resulting from the use of the new bearings adds very little to the overall load on the powerful propulsion system.

Components for the new design are already in manufacture at Marion Power Shovel Company in Marion, Ohio. On site work will be confined to assembly of finished parts. Long lead time items have been ordered. Up to the present time, the design, test, and procurement of the new bearing system has been the pacing item in the transporter completion. A work stoppage at the site by the United Steel Workers is now the prime factor in determining a definite schedule. Labor problems between Marion Power Shovel Company and the United Steel Workers are the cause of the inactivity at the site since September 16, 1965. This matter is presently in the hands of the Federal Mediation and Conciliation Service.

(more)
Difficulties were experienced during tests which took place between April and July in the hydraulic leveling and steering systems. These are unrelated and separate from the bearing problem. Modifications are concurrently being made to the hydraulic leveling and steering systems by American Machine and Foundry Company as a sub-contractor. Final adjustments cannot be made until the vehicle is transporting under load.

The estimated cost for the new bearing system, including labor and materials, totals 0.5 million dollars for both transporters. The projected completion cost for the two Crawler Transporters under contract is $13.2 million. This includes the basic contract cost of $9 million and $0.9 million for NASA-directed changes, a $2.7 million overrun which includes the cost of the new bearing system noted above and an estimated $0.6 million for new work representing changes in design criteria as a result of development tests.

The operational readiness of the Crawler Transporters will not jeopardize the key milestones in the completion of Complex 39 for the Apollo program.

# # #
CAPE KENNEDY, Fla.--Manpower projections of the John F. Kennedy Space Center and other NASA activities indicate that NASA or NASA-related employment at Cape Kennedy and Merritt Island will peak at 18,000 on June 30, 1965.

The estimates do not reflect employment by the U.S. Air Force and its contractors or other Department of Defense activities at Cape Kennedy and elsewhere in the vicinity.

By June 30, the NASA construction program, centered largely in the Merritt Island spaceport, will require an estimated 4,800 workers while 957 others will be engaged in installing equipment. One year later, June 30, 1966, forecasted employment will be 17,000. As the construction progresses, the number of construction workers will be reduced somewhat.

FY 1967 projections indicate total employment at year's end of 18,000, including construction workers and equipment installers.

Where these people will be working reflects the changing emphasis from heavy unmanned space vehicles to the oncoming manned Saturn launches leading up to the Apollo mission to explore the moon.

About 5,000 NASA personnel and supporting groups currently work at Cape Kennedy while 7,800 are employed on Merritt Island and 2,000 at other locations. By June 30 next, there will be nearly 12,900 working on Merritt Island, 4,200 at
Cape Kennedy, and 1,300 elsewhere. As NASA employment builds up on the spaceport, the NASA strength at Cape Kennedy will reduce.

This is not true, however, of the unmanned launches conducted by the Goddard Space Flight Center. For the foreseeable future, all Goddard launch operations will continue at Cape Kennedy and will require about 1,300 personnel including Federal workers and stage contractors.

Personnel strength of the Kennedy Space Center will increase sharply as of January 1, 1965 with the mass transfer of approximately 500 personnel from the rolls of the Manned Spacecraft Center. These employees have previously been reported as MSC Florida Operations and are included in the forecasted totals. Some of them will later be transferred to NASA jobs at other locations.

# # #
CAPE KENNEDY, Fla.--"It's our job to see that data from tests is accurately recorded, made understandable, and then quickly disseminated to the people who need it.

"The data, of course, includes records of thousands of measurements, from pre-launch to in-flight," says Dr. Rudolf H. Bruns, Chief of the NASA Kennedy Space Center's Data Acquisition and Systems Analysis Division.

"Actually, the majority of data is collected before the countdown on the many critical checkout tests. The flight produces the more spectacular data," Dr. Bruns said.

He is also deeply involved with theoretical, statistical and mathematical analyses of data and the predictions of instrumentation performances.

"Before a launch we must develop a plan detailing which instrumentation will be used to acquire the needed data. We start our plan with two ingredients in mind: (1) the flight trajectory, which sets the geometric pattern; and (2) the accuracy to which the trajectory is to be determined, and what the specific requirements are for the mission," Dr. Bruns says.

Even such considerations as the position of the sun enter into the planning, for a bad sun angle could interfere with the on-board and ground camera coverage of stage separation and other functions.

"We also support the Marshall Space Flight Center on a number of projects," Dr. Bruns added, "particularly on meteorological studies.

-MORE-
"And we are responsible for operating the General Purpose Scientific Computing Facility at the Center. This is used for quick-look data reduction, geared to a specific test.

"There is one point I'd like to emphasize about our main purpose here," he noted. "It is to provide a quick and flexible test response rather than produce refined data for a detailed engineering evaluation of a test with the intention of improving design.

The detailed data reduction is done by the Air Force Eastern Test Range.

Dr. Bruns has found his career in rocketry both challenging and rewarding. "The biggest appeal for me," he says, "is that the job requires application of science and a test of scientific deductions.

"It is also rather exciting at times for there are always tense moments during countdowns. I stand by in our data handling area because if a piece of instrumentation failed the blockhouse might call to find out what part its loss would play on the overall mission."

A native of Hannover, Germany, Dr. Bruns received his Master's Degree in Geodesy from the Institute of Technology of Hannover, where his study emphasis was on mathematics, statistics and physics.

In 1953 he began work as a research scientist at the German Geodetic Research Institute in Munich, and during the next four years traveled all over Europe establishing a network of gravity reference stations.

He gained his doctorate in 1957 at the Munich Institute of Technology, and came to the United States in April of that year to join the old Missile Firing Lab team. He originally started with the range instrumentation group.

Dr. Bruns and his wife Rosemarie - U. S. citizens since 1962 - live in Cocoa Beach. Asked about his hobbies, he replies: "I like to keep my car running." He is also a serious reader, and on vacations prefers the North Carolina mountains.

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NEWS RELEASE

JOHN F. KENNEDY SPACE CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Public Information Office, Cocoa Beach, Florida
Phone: SU 3-7781

FOR RELEASE: January 7, 1965
w/photos

KSC-5-65

MERRITT ISLAND, Fla.—Assembly of the first crawler vehicle, which will carry Saturn V/Apollos from the Vehicle Assembly Building to the pad, is nearing completion at the Kennedy Space Center's Merritt Island construction site.

"All we're waiting for now is the installation of the hydraulic steering cylinder," Bob Burns, Assistant Technical Representative, said.

"We should be moving it in a trial run any day now," he added. "We've already cranked up the diesel engines, and there are a number of checkout tests being carried out."

Marion Power Shovel Company is the prime contractor for two crawlers, at a cost of $10,597,175, which includes modifications.

Assembly of the first crawler began last April, and work on the second one will begin soon.

Burns said each individual "shoe" on the crawler's track weighs 2,015 pounds. There are 57 shoes per track, and eight tracks on the vehicle.

"It's a funny sight to look at the speedometer in the crawler," Burns said. "There are two speeds, one mph and two mph."

The massive vehicle, which will weigh about 5.5 million pounds when fully assembled, will travel 2 mph when unloaded, and half that speed with a Apollo-Saturn V atop it.

#####
COCOA BEACH, Fla.--An apparent low bid of $8,3 million has been received by the John F. Kennedy Space Center for installation of ground support equipment on Apollo-Saturn V Launch Complex 39 on Merritt Island.

The bid was submitted by Pacific Crane and Rigging Co., Cocoa Beach, a subsidiary of a California firm, Macco Inc.

The Kennedy Space Center expects to award a fixed price contract for the work by Feb. 1.

The invitation for bids called for the purchase, fabrication, assembly, installation, cleaning and testing of electrical, mechanical, pneumatic and hydraulic systems, valves and control modules, pipe assemblies and support hardware.

Equipment will be installed in three mobile launchers, in two bays of the Vehicle Assembly Building, and Launch Pads A and B of Complex 39.

Involved is about $100 million worth of government owned equipment, such as gas systems and swing arms on the towers of the mobile launchers.

The work is expected to take about two years from the date of notice to proceed.

Pacific Crane & Rigging was one of five companies which submitted bids. The bids ranged from Pacific Crane's low of $8,347,610 to a high of $9,097,000.

# # #
CAPE KENNEDY, Fla.—Launch Complex 16 at Cape Kennedy will be modified to convert the former Titan missile facility into static test stands for the Apollo manned lunar spacecraft, the National Aeronautics and Space Administration announced today.

Bids for modifications for a test stand for the Apollo Service Module are expected to be opened by the Canaveral District, Corps of Engineers, late this month, with tests scheduled to start in mid-1965. The Lunar Excursion Module test stands will be ready in mid-1966.

Each of the two existing positions at the complex, built to test and launch the first and second stages of Titan I's and II's, will be modified. The first stage position will be adapted for the Service Module and the second stage test stand for the LEM.

NASA crews are removing launch-designed equipment at the complex to make the necessary static test stand modifications.

Spacecraft models will undergo complete pre-flight checkout, including leak tests, systems tests, engine gimballing and "hot-fire" tests with gimballing.

The static tests will also provide an opportunity to check out new ground servicing equipment and acquaint pad personnel with Apollo launch procedures. Astronaut crews will be present for full system testing of the modules.
Since Titan II vehicles use the same propellants as the two Apollo modules, the basic propellant storage, transfer and loading facilities existing at the complex will be utilized. Mechanical, electrical and structural engineering changes represent the major modifications to be accomplished.

The modified test facility will replace an Apollo static test stand originally planned for the NASA Kennedy Space Center's Merritt Island facility. Officials estimate that the modification of Complex 16 will represent a cost reduction of about 72 percent under the original $7 million dollar construction estimate for test stands on Merritt Island.

Three Air Force complexes remain operational for Titan programs at the Cape.

####
CAPE KENNEDY, Fla.--Key Kennedy Space Center technical personnel are meeting today for a two day Studies Program Seminar.

The sessions include briefings on future study projects of the Center. Georg von Tiesenhausen, Chief of KSC's Future Studies Branch, Launch Support Equipment Engineering Division, and members of his staff are leading the briefings today.

Tomorrow, Jim Deese, Chief of Facilities' Advanced Studies Office; Paul King, Chief of the KSC Safety Office; and Lester Keane and Bob Blanchard of the RF and Telemetry Division, will make presentations.

Subject matter ranges from Saturn ground support equipment hardware development -- to acoustics, seismic and meteorological studies concerning future manned space flight programs.

Phil Claybourne, Deputy Director of Plans, Programs and Resources, is acting as chairman for the seminar, the first of its kind.

Objective of the meeting is to present KSC personnel the accomplishments, plans and capabilities of the various offices engaged in these study efforts, and to promote free exchange of information and ideas among those interested.

One of the highlights of the seminar will be a laser demonstration.

######
MERRITT ISLAND, Fla.--More than half of the world record Cocoa-area bird count of 204 different species, registered last month, were sighted at the John F. Kennedy Space Center, NASA.

Lon Ellis of Merritt Island, one of four counters who worked the KSC property, said 108 species were found over several hundred acres in the southeast corner of the Spaceport, near the Telemetry 13 site.

Of course, many of the birds were also sighted in other Brevard areas, but Ellis said the allowance by KSC officials to open the government property to counters made the new record possible.

Each year Audubon Society members across the nation count the different species within 15 mile areas. For the past several years, the Cocoa group has led the nation.

Ellis says the wide variety of terrain in the area -- salt water, marshes, groves, flat land, hammocks, and fresh water regions -- provides good habitats for a great number of birds.

"The rarest bird we sighted", he noted, "was the Lecontes' Sparrow. It was the first time we'd seen one in 10 years."

The feathered creatures ranged in size from the tiny hummingbirds to giant American bald eagles.

"We sighted one new eagle's nest on the Spaceport", Ellis said. "That makes about 10 altogether."

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To come up with the 108 count, Ellis, Curtis Wilson, Manager of the Merritt Island National Wildlife Refuge, Clyde Flowers and Foster White combed several hundred acres for 20 solid hours one day last month.

"We worked straight through," Ellis said. "We didn't even stop for a break. We'd just jam a sandwich in each side of our cheeks like a gopher, and kept going.

"We got many of the birds at night. You can tell a short-eared owl, for instance, by the V-shape image of the wing when it's in flight after dark. Other birds, like the King, Black, Clapper and Virginia Rails, you can tell by their sounds. You just stop and shout and clap your hands and they answer back."

Ellis said his group was divided into "birddogs", who flush the species, and "spotters" -- experts who can tell in a flash exactly what they see.

More than one spotter has to sight a rare bird, for verification.

"In a way you might say the Kennedy Space Center has its own particular species of bird," Ellis pointed out. "The Dusky Seaside Sparrow is found only on Merritt Island."

He said this was a rather large charcoal black sparrow with yellow spots over the eyes and on the nose. It is not found anywhere else in the world.

Ellis added that the acreage in the southeast corner of the Spaceport would normally yield an even higher count -- of maybe 125 to 130 species, but there had been no bad cold storms in the north to drive the birds south.

-MORE-
Still that 204 count is the highest ever recorded in America.

"We originally thought it was only 203," Ellis said, "but one of our counters wrote in a Tanager on the paper sideways, and we didn't notice it at first."

###
CAPE KENNEDY, Fla.—Several building names at the Spaceport on Merritt Island have changed in the past few weeks. Here's an up-to-date list:

The Vertical Assembly Building retains the same initials -VAB- but is now known as the Vehicle Assembly Building.

The Launcher Umbilical Towers (LUTs) have given way to the new title of Mobile Launchers, and the Arming Tower is now known as the Mobile Servicing Platform.

Other significant changes include:

--Personnel Training, from Auditorium and Training Facility.
--Information Systems Building, from Central Instrumentation Facility.
--Supply Facility, from Central Supply Facility.
--Communications Distribution and Switching Center, from Telephone Office.
--Occupational Health Facility, from Dispensary.
--Paint and Oil Storage Facility, from POL area.
--Electric Station, from Power sub-station.
--Supply Warehouse, from Warehouse Storage and Supply Facility.
--Life Support Test Facility, from Environmental Systems Test Facility.
--Cryogenic Test Number One, from Fluid Systems Test Facility, Gemini.

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---Cryogenic Test Number Two, from Fuel Cell System Test Facility, Apollo.

--Pyrotechnic Installation, from Pyrotechnic Storage Area.

--Spacecraft Spares and Equipment Building, from Support Equipment Building.

--Fluid Test Support Building, from Systems Test Support Building.

In the VAB and Launch Complex 39 area, these changes have taken place:

--Paint and Storage Area, from POL, Paint and Chemical Storage Building.

--Converter/Compressor Facility, from High Pressure Gas Converter Facility.

--Helium and Nitrogen Storage, from High Pressure Gas Storage Building.

#######
CAPE KENNEDY, Fla.-- Ernie Swieda should be everybody's friend - everybody that pays taxes that is.

For as Chief of the Resources Office's Value Engineering Branch, it's his full-time job to cut costs at the Kennedy Space Center, without degrading quality or reliability.

It sounds like an impossible job, but Swieda says the key to it is Center-wide awareness of how and where cost reduction can be effectively used. He also notes that top management's full and enthusiastic endorsement of the Cost Reduction Program has provided the impetus necessary for success.

KSC Director Kurt H. Debus is fully cognizant of the importance of such a program, and designated Rocco A. Petrone, Director for Plans, Program, and Resources, to spearhead the drive. Petrone, in turn, named Swieda as KSC's full time cost reduction representative. The appointment was made a year ago and when the fiscal year 1964 annual report was sent to NASA Headquarters, a savings of $1,087,000 was reported.

"The success of our program is dependent upon the continuing awareness on the part of all personnel of the need to accomplish our mission in a successful and timely manner at the lowest possible cost," Swieda said.

He listed a specific example of how such a substantial savings was brought about.

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Swieda, in citing this example, said that although it was a high dollar savings, that many employees are not in a position to accomplish, all employees, in their day to day work, can measurably help to cut costs.

He described how even the smallest savings can result in substantial amounts when considered in terms of the entire Center. To illustrate this he recalled emptying the contents of a waste basket to see what could be found.

Included in the trash were several paper clips and rubber bands, part of an unused note pad and a few other minor items. The estimated value of this usable material was about six cents.

"Now, figuring there are 260 work days a year, and that, conservatively, there are 1,500 waste baskets used by KSC employees, the savings, projected over a year's time would amount to $23,400," Swieda says.

"There are so many ways everyone can help in this program," Swieda pointed out. "For instance, a secretary can type an extra carbon copy, precluding the need for a last minute dash to the xerox machine."

He said the wholehearted support of everyone at the Center would be needed for KSC to meet its fiscal year 1965 cost reduction goal - $7 million.

To help advertise the program, Swieda is currently exploring with the GSA the feasibility of imprinting a suitable cost reduction reminder on all pencils the GSA purchases for use by

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government employees. This idea, which is a modification of a similar technique used by Ling-Temco-Vought, Inc., one of KSC's support contractors, is intended to serve as a continuing reminder of the cost reduction program to all employees.

When NASA Administrator James E. Webb heard of the pencil campaign, he wrote Swieda.

"It seems to me," he said "to be a simple but very effective way of promoting the program and I want to commend you on having both the interest and the initiative to come up with this suggestion. Keep up the good work."

A native of New York City, Swieda graduated from New York University in 1952, and went to work as a plant layout engineer for the Kollsman Instrument Corporation.

He later joined the Mergenthaler Linotype Company in Brooklyn as a senior methods engineer, and was promoted to plant equipment engineer. Prior to joining KSC in November 1963, he spent five years with Republic Aviation at Farmingdale, Long Island; first as a senior equipment engineer, and later as coordinator for repair of all F105 airborne electronic equipment.

He was 1962-63 President of the Long Island Chapter of the American Institute of Industrial Engineers, and is now active in the Canaveral Chapter.

Swieda and his wife, Joan, have three children, Bobby, 11, Andrea, 8 and Tommy, 5.
"It's going to take a lot of pulling together for us to meet the goal of saving $7 million this year," he said. "One point I'd specifically like to emphasize, is that when an employee has an idea on how to cut costs - let us know about it. We'd like to give them proper recognition, and we'd like to pass along their suggestion so others might benefit from it."

Swieda's phone number is 853-5045.

#####
CAPE KENNEDY, Fla. — How much more complicated is a Saturn I vehicle than one of its early-day predecessors, the Redstone?

Andrew J. Pickett, of Eau Gallie, Chief of the NASA Kennedy Space Center’s Mechanical and Propulsion Systems Division, took a puff from his pipe and thoughtfully considered the question.

"If you look at an individual system of the Saturn, like the hydraulic or fluid dynamic systems, I don't believe it's any more complicated," he said.

"There have been improvements, but the principle is still the same. Looking at all the sub-systems interwoven, you do have a vastly more complex system.

"One of the basic differences is that in the old days most of the people who worked on the vehicles were knowledgeable across the board, but today there are a lot more specialists, and only a few key people know all the systems well," Pickett said.

His division, which has a Civil Service strength of 93, is currently involved with testing, checkout and preparation of the Saturn SA-9's mechanical and propulsion systems.

This involves everything from propellant loading systems to swing and hold down arms and associated ground support equipment.

But although the engineers, technicians and mechanics in Pickett's division are perhaps busiest when a bird is on the pad, there is no appreciable slack in work between launches.

-MORE-
"Actually, we're just as busy then," he says. "Refurbishing a pad after a flight, and reservicing valves and components must be done, and, engineering-wise, we spend a great deal of time with design people. We examine future designs for operational problems and make recommendations where we think they are needed.

"Our responsibility really encompasses both performing work ourselves and assuring that contractors perform quality work," Pickett noted. "The integrating of the contractors as they become involved in the launches takes up much of the engineers' time.

"I might add that we work very closely with the contractors, and without their contributions, we couldn't get the job done. A total integration effort between NASA and the contractors is imperative to the success of our operations."

A native of Shelby County, Alabama, Pickett received his BS degree in Mechanical Engineering from the University of Alabama, and served with the U. S. Navy during World War II.

He began his rocketry career at the Redstone Arsenal in Huntsville 12 1/2 years ago, and within a few months became a member of the now-famous Missile Firing Lab team, then headed by Dr. Kurt W. Debus, the Kennedy Space Center Director.

Down through the years, from the first Redstone static test and launch through the most recent Saturn firing, Pickett has been closely involved in more than 100 countdowns, and seen a number of space milestones achieved -- always from inside the blockhouse.

"That's one of my ambitions," he said, "to see one of our flights from out in the open."
CAPE KENNEDY, Fla.--During fiscal year 1964, contracts to industry and non-profit organizations, as well as funds transferred to other Government agencies by the John F. Kennedy Space Center, NASA, amounted to $232,032,000, according to M. E. Haworth, Jr., Chief of the Center's Procurement Division.

Haworth said a total $98,283,158 in procurement actions were placed directly by the center during the year.

More than $30 million in contract awards were placed with Florida businesses and 31 states had active contracts with the Kennedy Space Center.

Approximately $500,000 in awards were made to distressed labor areas in the United States.

Haworth noted that the number of individual procurement requirements placed with the Division increased 40 per cent over the same period of a year ago.

Added emphasis was placed on definitive work statements and firm specifications, which resulted in increased numbers of awards made through formal advertising and competitive negotiations.

Nationwide interests in Kennedy Space Center contracts is increasingly evident by the number of industry representatives who contact the Procurement Division each year. During fiscal year 1964, for instance, approximately 9,300 representatives visited the offices of the Industry Advisor and of various buyers within the Division.

-MORE-
Also, 4,438 bidder's mailing list applications were distributed to industry through personal visitations at the Center, and through the seven industry symposiums held throughout Florida and neighboring states during the year.
MERRITT ISLAND, Fla.—The first portion of the 130-foot-wide crawlerway, over which Saturn V moon vehicles and their mobile launchers will be transported from the Vehicle Assembly Building (VAB) to Launch Complex 39's pad areas, has been accepted by NASA's Kennedy Space Center from the Corps of Engineers Canaveral District.

The portion accepted runs about two thirds of a mile from the crawler assembly area, northwest of the VAB to a point about 2,000 feet east of the VAB.

Work on this section, by the joint venture firm of Morrison-Knudsen-Perini-Hardeman, was begun about one year ago.

Before that tons of hydraulic fill from the VAB area's barge terminal was pumped up on the crawlerway site as initial material.

Kennedy Space Center Project Engineer Dave Mattie said the portion of the road accepted is six and a half feet thick. The lower two and a half feet of this is selected dredged sand and shell fill, the upper four feet is a blended mixture of fine and course limerock. The crawlerway is topped with an asphalt seal coat.

"Basically, the crawlerway is like two super highways, each 40 feet wide and separated by a 50 foot median strip," Walt Miller, Chief of the KSC Utilities Section, Facilities, said.

But portions leading past and into the three mobile launcher areas have been paved all the way across the full 130 foot width, to provide a turning area.
The accepted part of the crawlerway has been constructed to withstand the 17.5 million pounds which the Saturn V, the mobile launcher and the crawler will weigh.  

The 17.5 million pound load which the crawlerway will withstand is 10 times heavier than the largest aircraft (B-52), for which pavement system have been designed.

Miller said a portion of the strip accepted by NASA was actually built over a swampy area.

"We even found a mama alligator and 24 babies there one day during the dredging," he noted.

Giant mastodon bones were also discovered in the area during dredging operations over a year ago.

In addition to the first portion of the crawlerway, the Kennedy Space Center has also accepted a 4,400 foot strip of the Saturn Causeway, which runs from Kennedy Parkway North around the south side of the VAB to a point 2,000 feet east of the building.

This asphalt-topped road will be the main access area for normal traffic between the VAB region and the pads at Launch Complex 39.

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CAPE KENNEDY, Fla.--More than $13 million in contracts were awarded to small business firms by the NASA John F. Kennedy Space Center's Procurement Division during fiscal year 1964. This is approximately a 100 percent increase over FY 63.

Tom Davis, KSC Industry Advisor, said this amounted to more than 13 percent of all dollars awarded to commercial and manufacturing establishments during that period.

"Small business received nearly 70 percent of awards to business establishments," Davis said.

The Government defines a small business as one which generally employs less than 500 persons, and firms which do not predominate in their specific field of endeavor.

During the fiscal year contracts amounting to $2,256,000 were set aside for small business firms. The rest of the $13 million awarded to small business resulted through competition with large business. Additional dollars from KSC flow to small business through sub-contracts and purchase orders from larger business companies.

Small businesses were generally the most successful in bid solicitations under $25,000, according to Davis. They received nearly two thirds of these awards in that range during the year, for a total of $5,437,000. Nearly three fourths of the firms solicited for these contracts responded.

CREDIT: NASA
COCOA BEACH, Fla.--William M. Lohse has been appointed Deputy Chief, Procurement Division, of the John F. Kennedy Space Center, NASA.

He will assume his duties in about two weeks.

Prior to his retirement as a captain, Supply Corps, USN, Lohse was officer in charge of the Navy Purchasing Office, Washington, D.C.

He attended Scottsbluff, Neb. Junior College; Colorado State College of Education at Greeley, Colo.; and is a graduate of the Harvard Business School. Lohse has attended several Navy schools, including a recent tour at the Naval War College and has been in Navy procurement billets for the past 16 years.

Before returning to Washington in 1963 he served as Supply Officer on the USS Ranger, one of our super aircraft carriers.

Lohse is married to the former Gertrude Gustafson of McDonald, Kan. They have two sons, Christopher, 6 and Charles, 4.

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COCOA BEACH, Fla.--A contract for $3.3 million was awarded today to a California company for installation of ground support equipment at the Kennedy Space Center's Apollo-Saturn V Launch Complex 39 on Merritt Island.

The fixed price contract was awarded to Pacific Crane and Rigging Co., Cocoa Beach, a subsidiary of a California firm, Macco Inc.

The contract calls for the purchase, fabrication, assembly, installation, cleaning and testing of electrical, mechanical, pneumatic and hydraulic systems, valves and control modules, pipe assemblies and support hardware.

Equipment will be installed in three mobile launchers, in two bays of the Vehicle Assembly Building, and Launch Pads A and B of Complex 39.

Involved is about $100 million worth of government owned equipment, such as gas systems and swing arms on the towers of the mobile launchers.

The work is expected to take about two years from the date of notice to proceed. That notice is expected to be given Feb. 1.

Pacific Crane & Rigging was one of five companies which submitted bids.

The bids ranged from Pacific Crane's low of $8,347,610 to a high of $9,097,000.

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MERRITT ISLAND, Fla.--"We plan our meals on a five-week cycle, and we never have the same thing twice during that time," said Mrs. Antonietta Beagle, chief dietitian at the Kennedy Space Center's central kitchens on Merritt Island.

She plans the menus not only for the main cafeteria, but for the one in the Manned Spacecraft Operations Building and for the two semi-mobile food units as well.

Prime contractor for food service at the spaceport is the Macke Progressive Food Systems Company, and the operations are supervised by Robert W. Endsley, Manager of the NASA Exchange Council. Walter Brassel is General Manager of Macke here.

"We offer three entrees daily," said Mrs. Beagle, "and we try to have as much variety as possible. Oh, we might use the same basic food, such as chicken several times during a cycle, but one time it will be in a casserole and the next time barbecued or fried."

Mrs. Beagle, who majored in Food and Nutrition in college and served as dietitian at the famous Battlecreek Michigan Sanitarium, said the caloric count of foods served at the Spaceport might be a little higher than normal.

"You have to consider that we feed a lot of construction workers, and people active outdoors, and they need solid meals. We've found meats, creole dishes and spaghetti to be very popular. The men like anything that sticks to the ribs."

-MORE-
She also pointed out that the individual size of servings is a little heftier than in most cafeterias.

Although the daily luncheon crowd is a comparatively small 300 now at the main cafeteria, several hundred more will be eating there in the near future.

"You could easily say we serve thousands of workers on the Island daily, though," said Endsley. "In addition to the two cafeterias and two semi-mobile units, we have a number of food trucks and sandwich vending machines all over the area."

Food is prepared in the central kitchens, located in the main cafeteria, and is transported to other areas in special trucks. Heated or refrigerated carts are plugged into the trucks so that the food maintains its preparation-fresh quality, and exact temperature.

The daily menu is standard at all Island facilities.

John K. Langenbacher, Food Service Manager, said personnel are trained in everything from setting up cafeteria lines to the proper way to stack and wash dishes.

American Restaurant Association Training films are also shown periodically.

"Eye appeal is also important," Langenbacher said, "for instance, we line our vegetables and salads up to look like the colors of a rainbow. Each server is instructed on the proper portion to allow the way to serve it. We don't want a piece of meat placed on a plate with gravy splashed all over it.

In addition to the three entrees daily, along with assorted vegetables, salads and desserts, there is a daily special. Chef Samuel Piper carves either a round of beef or a large piece of similar meat to the customer's order.

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NEWS RELEASE
JOHN F. KENNEDY SPACE CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Public Information Office, Cocoa Beach, Florida
Phone: SU 3-7781

FOR RELEASE: January 28, 1965

KSC-19-65

CAPE KENNEDY, Fla.--At precisely 47 minutes and 56 seconds past 10 p.m. (EST) on January 31, 1958--seven years ago this Sunday--a Jupiter C vehicle lifted off its launch pad at the south end of Cape Canaveral, carrying a 30-pound satellite labeled Explorer I.

When the package of scientific experiments reached orbit a few minutes later, it signalled one of the great rocketry milestones in U. S. history--the successful placement in space of the first American satellite.

Explorer I blazed the trail for the hundreds of various spacecraft that have followed it into orbit. Many of the original launch team responsible for its success are at the Kennedy Space Center today working on the more advanced Saturn program.

To recapture the excitement and anxieties of that historic winter night in 1958, six of these veterans were asked to recall the events surrounding the Explorer I launch.

Daniel Collins, Chief of the Technical Staff, Information Systems, was with the Range Instrumentation Planning section seven years ago. He viewed the launch from the Hangar D area.

"I can remember high surface winds had scrubbed the flight on the first attempt, and on January 31st there was some lightning in the area and some more marginal winds that gave everyone some bad moments.

-MORE-
"Although the launch itself was typical of any other Jupiter C, the fact that it carried the first satellite was impressive. I had apprehensions and I think everybody was on tenderhooks.

"After it was launched we all waited for word from the west coast on confirmation of orbit. I don't think anybody went home until they knew."

Natalie Spielman, secretary of Jim Russo, was working in a small office at Hangar R seven years ago.

"I can remember that launch because I was working that night. Everybody was so excited. We all had our fingers crossed as it went up. I prayed that it would be good.

"I waited for orbital confirmation, because I had to type a post firing report."

Jerry Greenfield, Chief of the Electrical Systems Branch, was then a private first class in the Army, and witnessed the flight from inside the blockhouse.

"As I recall, things went pretty smoothly during the count. There was one hold called. I think there was some worry over the satellite's spinning in the wind, but it was nothing serious.

"I was on the cluster control panel in the blockhouse, and these were less than 50 people inside. On Saturn launches today we get 300 or more in the Launch Control Center.

"I think there's an extra amount of anxiety when you're trying to achieve a first as we were, and I remember everyone going from the blockhouse to Hangar D after launch to see if it made orbit."

-MORE-
Ed Fannin of KSC's Propulsion and Vehicle Systems Branch, was one of the last men to leave the pad area on the night of January 31. He viewed the flight from the fallback area.

"The thing I recall most vividly was a hydrogen peroxide leak in a drain line in the engine system, which resulted in some dripping in the tail section. We discovered it while we were preparing to clear the pad.

"Everybody pitched right in to clean it up and I specifically recall Jay Campbell working hard on it. If we hadn't caught the leak it could have gotten into the wiring and caused some short circuiting.

"There was a little more jubilation than usual when we got the Jupiter off, and then everyone stayed around until they got word on the orbit."

One person who will likely never forget the launch and the ribbing she took because of it, is Sarah Hegwood, secretary to Raymond Clark. She was in the Project Office then, and slept through the flight, not learning of its success until the next morning when she went to work.

"I was so embarrassed. The launch had slipped a few times because of high winds, and I had been baby sitting with it so long, I just fell asleep. I probably would have been a jinx anyway, because it seems I never have seen a really big flight.

"But even the next day everybody was excited. We couldn't even work, all we could do was talk about it. It was a grand feeling, like a homecoming football game, where the local team pulled a big upset victory."
Vester Pinson, Chief of Telemetry Ground Stations, was in Hangar D on the night of the launch.

"I was inside the building and didn't get to see it liftoff. In fact, we had to virtually lock ourselves in, because a crowd of 200 to 300 people gathered around the Hangar and wanted to know if it had reached orbit.

"We couldn't tell, but they thought we could. We didn't know until it came over Australia and then California and we got word from JPL. This was about an hour and a half after launch.

"We were confident it made it though as soon as she went over the horizon. Everything looked so good—velocity, pitch, roll and yaw. I told the fellows, we can't miss."
CAPE KENNEDY, Fla.--As the Kennedy Space Center programs continue to grow in size and complexity--so too does the launch team.

From an initial hard core of rocketry veterans, the Saturn launch team has expanded to include hundreds of mission contractors -- specialists in their fields -- as well as the KSC members.

Thus one of the most important jobs to develop over the past few years has been that of the NASA monitor or liaison man. It is his responsibility to apply experience-gained knowledge in seeing that the contractor is performing work under acceptable NASA standards.

Such a man is Ted Oglesby of the Kennedy Space Center's Electrical Systems Branch, Guidance and Control Division.

He is involved with the electrical systems of the Saturn's S-IV second stage, and since Douglas Aircraft has the prime contract for the construction and checkout of the S-IV, Ted works closely with the company's engineers.

"We must make sure that their work is according to specifications, and thus we spend a lot of time on engineering orders and procedures reviews," Oglesby says.

When an S-IV is at the Center, either in Hangar AF or on the pad, either Ted or his working partner, Art Sawyer, spend most of the day with the stage.

-MORE-
During the countdown, they are generally in the blockhouse, ready, if necessary, to help resolve any electrical systems problems that arise with the S-IV or its interfaces.

To be able to fill such a position, which requires a broad, across-the-board knowledge of electrical systems, Ted put in a number of years with vehicle hardware - from the Redstones up through the Saturn I.

He went to school on both coasts of the United States, starting at the City College of San Francisco, and finishing at the University of Miami, where he received a BS degree in Engineering.

He came directly to the Kennedy Space Center in February 1959 and began work with the Missile Firing Lab.

In the past six years he has worked on countless launches and seen a number of space milestones achieved. Two stick in his memory: Alan Shepard's Mercury flight atop a modified Redstone, and the SA-5 launch, in which a live S-IV second stage was used on the Saturn I for the first time.

Ted was responsible for the electrical systems for Shepard's booster.

"I wouldn't say I had any anxieties about that flight," he recalls, "but you always wonder if you've done everything you can to insure a success."

Ted lives on Merritt Island with his wife Carole and their two young daughters, Karen, 2 1/2, and Kim, 6 months.

He didn't particularly plan a career in rocketry, but was interested in it while in school, and when the job came up after graduation he quickly accepted it.

-MORE-
As for the future, Ted believes more veteran KSC team members will be called upon to share their long years of experience and knowledge in jobs similar to his, thus immensely benefitting new contractors as they are phased in on NASA systems, assuring smooth launch operations.
KSC-21-65

MERRITT ISLAND, Fla.--The flow of traffic into and out of the NASA Spaceport on Merritt Island has increased to more than 16,000 vehicles in a 24-hour period.

Latest traffic counts conducted by the John F. Kennedy Space Center, NASA, disclosed the following:

- South Gate, Merritt Island..........................4,659 vehicles
- NASA Causeway, at U. S. 1..........................7,174
- North Gate, Haulover Canal.........................960
- NASA Causeway, Banana River....................3,397

A fifth location, at the Titusville Causeway, was not included in the tally because the automatic recording mechanism failed temporarily.

The largest increase over December, 1964 was reflected in the volume of traffic entering and departing via the NASA Causeway gate near the Florida mainland.

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MERRITT ISLAND, Fla. -- Supply requisitioners at the Spaceport are getting rocket-fast service since Kennedy Space Center's Procurement Division has opened a Cash Purchasing Office on Merritt Island.

In most cases, "hot" requests for anything from nuts, bolts and screws, to more complex pieces of equipment are processed on a one-day basis.

"Our aim is to have the item for the requester before he has a chance to turn around," said Bert Williams, one of the office's two personnel.

The other is Etha Quinn, and they work closely with Lorinda Brand of the Space Center's Financial Management Office, who is responsible for certification and fund control, and Bea Graham, cashier.

Mrs. Williams explains the operations this way: "We are authorized to spend up to $100 cash for items not usually stocked and up to $250 cash for emergency supply orders.

"The requests, and we expect some 400 to 500 per week, emanate through Supply. Once it hits our basket, we screen it, receive fund authorization from Mrs. Brand, and purchase it."

Most items are bought locally, but if it's an unusual request, either Mrs. Williams or Miss Quinn must get on the telephone until they find a source of supply.

-MORE-
"I had a request the other day for 130 eight feet long fence posts," Miss Quinn said, using an example. "The local stores didn't have that many in stock, but I finally located a farm supply store in Orlando that did."

Most requests can be given one-day service. If the item is purchased locally, it is delivered to the Central Supply Building, inspected and received. The vendor is then paid cash on the spot.

If the item isn't vendor delivered, it is either picked up at the vendor's store by KSC personnel or sent C.O.D.

To quickly procure the great variety of items that are requested -- Mrs. Williams and Miss Quinn rely on years of experience in the purchasing and related fields in which time they have built up a number of resourceful contacts.

Perhaps their most unusual item request to date was to buy tiger's milk for a special project. Some was found in an Orlando health store.

Through necessity, the ladies are on the phones most of the day. "My ear is sore by the time I go home," Mrs. Williams said.

"I would like to emphasize, though, she added, "that we have been successful so far through the wonderful cooperation of everyone in the office. We really work closely together and it pays off."

Only once has the office missed a deadline.

"We, ordered the item in time from a supplier in Philadelphia," Miss Quinn said, "and had it on a plane for delivery the next day. But the plane crashed!"

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JOHN F. KENNEDY SPACE CENTER - NASA
Public Information Office
Cocoa Beach, Florida
GU 3-7781
KSC-65-65

CAPE KENNEDY, FLORIDA

"We use instrumentation in the true sense of the word, as the science of measurement," said Reuben Wilkinson, Chief of the Kennedy Space Center Engineering Support Division.

"We get into everything from detection of lightning strikes in the pad area to the measurement of a microinch of movement on the launch pedestal."

During checkout tests for a Saturn flight, division personnel--there are about 45 civil service and 50 contractors under Wilkinson--record measurements of temperatures, vibration and strains and pressures and valve positions, among other things.

They also constantly monitor environmental controls systems, provide a variety of wind data and cloud potential for lightning warning in the launch area, and record acoustical data on the sound levels generated by a space vehicle flight.

There is a small laboratory where such research and development projects as a study on hydrogen detection are carried out. In addition, it also makes performance checks on new equipment that could be used in instrumentation.

Wilkinson said a unit in his division will provide the timing signals for use during tests and launch operations at the Spaceport on Merritt Island. In addition, under Engineering Support, there are calibration facilities for everything from digital counters to torque wrenches.

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CAPE KENNEDY, FLORIDA

Although most objects launched at the Kennedy Space Center wind up in earth orbit, or on long distance interplanetary flights, the coming of Spring will send hundreds of other birds into northern states, Canada and other regions.

There is no cause for alarm, however, for these will not be the metallic variety of birds, rather they will be members of the lesser scaups duck family who have been recently banded at the Merritt Island National Wildlife Refuge on the Kennedy Space Center on Merritt Island. "Our main purpose in banding them," says Refuge Manager, Curtis Wilson, "is to study migratory patterns, and to learn such other information as the longevity of birds, which is important to wildlife regulation and management.

Wilson and his men have just finished banding 1,000 lesser scaups. They trapped them in wire cages set up in the Indian River with corn and wheat as bait.

They placed small aluminum bands around their feet. "They don't even know the band is there," Wilson said. "It's like a ring on the finger."

We get some trap happy ducks who keep coming back for a free meal when they realize we're not going to hurt them."

More than 11 million birds have been banded through the years, and about 800,000 have been recovered. Birds banded in the United States have been found as far away as Siberia, Africa and the South Pacific.

One pintail duck, which is also common at the Spaceport, was banded in Texas in 1951, and showed up there three years later in Evekinst, Russia.

Others have traveled from North Datoka to South America.
The listed record for longevity of a banded bird?

"A Caspian Tern, which is not uncommon in this area, was found once 26 years after it had been banded," Wilson said.

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BEGINNING FEBRUARY 15TH, THE KENNEDY SPACE CENTER BRIDGE FROM MERRITT ISLAND TO THE MAINLAND WILL ADHERE TO THE SAME RULES REGARDING OPENING DURING RUSH HOURS AS THE OTHER BRIDGES IN BREVARD COUNTY.

THE DRAWSPANS WILL NOT OPEN BETWEEN 6:45 AND 7:45 A.M. AND BETWEEN 4:15 AND 5:45 P.M. MONDAY THROUGH FRIDAY, WITH THESE EXCEPTIONS:

-- FOR THE PASSAGE OF TOWBOATS WITH TOWS AND VESSELS OWNED OR OPERATED BY THE UNITED STATES.

-- FOR THE PASSAGE OF A VESSEL IN AN EMERGENCY INVOLVING DANGER TO LIFE OR PROPERTY. THIS WOULD BE INDICATED BY FOUR BLASTS OF A WHISTLE OR HORN.

THE BRIDGE WILL OPEN FOR NORMAL BOAT TRAFFIC AT ANY TIME OTHER THAN DURING THE WEEKLY RUSH HOURS.

THE KSC BRIDGE HAS A 27-FOOT VERTICAL CLEARANCE, WHICH ALLOWS MOST BOATS TO PASS UNDERNEATH WITHOUT OPENING THE DRAWSPANS.

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CAPE KENNEDY, FLORIDA -

Lt. Colonel Paul C. Gauger, Jr., U.S. Army, Ret., Chief of the Kennedy Space Center's Administration and Engineering Support Office, has been awarded an Oak Leaf Cluster to the Army Commendation Medal. The citation, presented by Major General A. C. Welling, South Atlantic Division Engineer, Army Corps of Engineers, was awarded for exceptionally meritorious conduct in the performance of outstanding service from March 1962 through July 1963.

During this period, Lt. Colonel Gauger was assigned as Deputy District Engineer, U. S. Army Engineer District, Jacksonville. His duties included supervision and administration of all phases of the district's mission involving planning, design, award, and inspection of a large civil works and military construction program.

His outstanding qualities of initiative, willingness to assume responsibility and responsiveness to the needs of the Armed Forces were demonstrated during the Cuban Crisis of 1962. He participated in this personally and in an outstanding manner.

###
FOR RELEASE: February 11, 1965

A group of visiting Professors from Georgia Institute of Technology and Auburn University, most of them with P.H. D. degrees, were briefed on Kennedy Space Center activities Wednesday and given a tour of NASA facilities at Cape Kennedy and on the Spaceport.

They were briefed by Assistant Kennedy Space Center Director for Engineering and Development, Aldo H. Bagnulo.

From Georgia Tech were: Dr. William F. Atchinson, Dr. James L. Caldwell, Dr. D. T. Paris, Dr. Bertram M. Brucker, Dr. Donnell W. Dutton, Professor Frank F. Groseclose, Dr. William B. Jones, Dr. Robert N. Lehrer, Dr. Milton E. Raville, Dr. Dewin J. Scheibner, Dr. Frederick B. Schutz, Dr. Andrew J. Walker, Dr. Don Fredlen, Dr. E. R. Bollinger, Dr. Zladimir Slamecka, Dr. R. D. Gray and Dr. John B. Neff.

From Auburn University: Professor Robert Pitts, Henry Summer, Dr. Hal Maynor and Dr. Reginald Backon.

# # #
CAPE KENNEDY, Fla.--About three hours before the liftoff of SA-9 several men, dressed in flame-proof coveralls, left the sheltered confines of the Launch Control Center and Complex 37, and drove out to Pad B where the Saturn I vehicle, more than half fueled, stood ready for flight.

Some of the men scurried halfway up the service structure, while others remained at ground level.

They were members of the gate operating and service structure moving crews, and their job was to open the single remaining gate locked around SA-9, and then move the 5,200-ton steel service structure some 1,200 feet away, leaving the bird alone on its launch pedestal.

They worked under a tight, demanding deadline. Their mission had to be accomplished in one hour, for then the remaining propellants were to be pumped into SA-9 so the flight could proceed on schedule.

They had the Complex all to themselves. It was like a ghost town, for long before, the pad area had been cleared of all personnel.

There was no time for any wasted effort, because the rollback of the service structure alone takes 40 minutes, and it can't begin until the swing gate wrapping the Saturn it opened.

A trio of Kennedy Space Center employees directed the operations performed by the Pan American crew. They were Chuck Stockton, Launch Complex 37 supervisor, mechanical engineer H. R. Pyles and Electrical technician George Hentz.

-MORE-
"Sometimes it's an eerie feeling to be all alone out there," Stockton says. "We're aware that the bird is partly fueled, but we're too busy to be concerned."

The one remaining gate that is wrapped around the Saturn has two "arms," each weighing 60 tons. They are opened by electrical motor-driven hydraulic transmissions.

Once the gates were free on the rocket, the service structure's 40-feet per minute trip down railroad tracks to the Pad A area began. When it was secured there, the men then rushed back to the safety of the blockhouse while the countdown continued.

####
CAPE KENNEDY, Fla.--"It's been a thrilling impression. I had very little idea of what I was going to see when I came here. It's a gratifying thing to see that the space mission of the country seems to be in such good hands."

The above statement, by Congressman Barber Conable (R-N.Y.) was echoed by four other freshmen members of the House Committee on Science and Astronautics who were given extensive tours and briefings on Kennedy Space Center activities last week.

Representative Olin Teague (D-Tex.), Chairman of the House sub-committee on Manned Space Flight, accompanied the new committee members.

"It was fantastic. I had no idea of the magnitude of the operation here," George Brown, Jr., (D-Calif.) said.

Gale Schisler, (D-Ill.), added, "I think the trip has been very enlightening in view of the fact that in being a first year Congressman, I've heard about this for years and have never seen it before."

"It's just remarkable," said William Anderson (D-Tenn.) "I think a person could read about the operation here for months and years and never really appreciate what was going on until he has a chance to personally see it."

Congressman Roy A. Taylor, (D-N.C.), also made the trip. The group toured Delta, Atlas-Agena, Gemini-Titan, Centaur and Saturn launch complexes at Cape Kennedy, and the Spaceport on Merritt Island.
CAPE KENNEDY, Fla.—Despite the heat generated during the liftoff of SA-9, the damage to the pad area is relatively minor.

One of the prime reasons for this is the water deluge systems used to pump thousands of gallons onto the pad before and during liftoff.

"We have the capability of pumping in 30,000 gallons a minute if necessary," says Kennedy Space Center engineer Larry Hill, "but for a routine launch about 40,000 gallons are used."

It normally takes the Saturn I vehicle only a few seconds, perhaps seven to ten, to clear the umbilical tower.

Hill says there are four basic deluge systems used at the pad. One is a pad fogging method, where pre-aimed nozzles, located in nine pits below ground level, spout streams of water as high as 108 feet up on the umbilical tower.

There is also a Torus Ring inside the launcher with nozzles sticking out that begin spraying water three seconds after liftoff.

At T-minus 38 seconds in the countdown, pad flush nozzles flood the ground area around the launch pad, and continue this until three seconds after liftoff.

The fourth system, which sprays water from three levels in the umbilical tower, is not used except in the case of emergencies, Hill said.

-MORE-
Also, if there is an emergency, such as a fire in the tail of the Saturn, a command water quench system can be turned on, which would pump into the vehicle through air conditioning ducts.

On normal launches, the pad area is doused for about a minute and a half afterwards. This has proven enough time to hold fire damages to a minimum, particularly since most pad equipment is environmentally treated for fire.
CAPE KENNEDY, Fla.--The Saturn I, SA-9 vehicle upon ignition, lifted off its launch pedestal in a matter of seconds.

It took considerably longer to place the bird on its pad--something like six to eight hours for each stage.

"We use a 60-ton derrick with a 90-foot boom and three hooks to place the Saturn I components in place," says Chuck Stockton, Launch Complex 37 Supervisor for the Kennedy Space Center.

He explains that the S-I first stage booster weighs 48 tons when it is transported to the Complex area for erection.

"We have to use two hooks, the 40 ton one and the 60 ton one, to lift it into place. The booster is about 80 feet long and we lift it about 40 feet above ground level," Stockton said.

"It is a very delicate operation, and despite the ponderous size of the stage, we have to fit it into position by the holddown arms within tolerances of 1/16th of an inch."

But, Stockton added, the derrick is so precise it is capable of placing such a load on top of a paper cup without mashing it.

The derrick handles everything in size from the 48-ton booster to the 2,500-pound launch escape system. The S-I stage for SA-9 was erected November 2, and the S-I second stage and Instrument Unit were set in place on November 19. The Pegasus satellite and Apollo command module boilerplate were added January 14, and the launch escape system five days later.

-MORE-
There are 150 tons on steel in the derrick, which is the largest at Cape Kennedy.

Fred Bailey of Pan American, who has more than three decades of experience, operates the crane, and M. L. Hardman is Pan Am's Supervisor of the derrick crew.

But KSC's Stockton directs the overall operation.

"Bailey can't see the stage he's working on when the derrick is in use," Stockton explains, "so I call the shots for him, telling him where the stages placed."
CAPE KENNEDY, Fla.--A few days before launch of the Saturn (SA-9) some 300 or more Kennedy Space Center and contractor men, each a specialist in some field of launch operations entered the blockhouse at Complex 37, to man their post, and begin, in a great effort of orchestration, the countdown for the flight.

For two days they worked in close harmony as each item on the lengthy countdown list was meticulously ticked off.

In the center of the spacious main floor room in the blockhouse, behind the lead console were several men, directing various phases of the operation.

Among them were Launch Vehicle Test Conductor, Chuck Henschel of KSC; S-I first stage Operations Engineer, Max Peacock of Chrysler; S-IV second stage Operations Engineer, John Churchwell of Douglas; and Pegasus satellite Test Conductor, Jack Lee of the Marshall Space Flight Center.

Also seated at this key console was an unassuming young Kennedy Space Center engineer who will have the overall responsibility of smoothly integrating all phases of the countdown, just as he has done for the past several weeks on all phases of pre-launch checkout operations.

He was SA-9 Test Supervisor, Dewey Childs.

-MORE-
"Actually, our planning for the mission began long before the first flight components for SA-9 even arrived here," Childs said. But once the stages did come in, the pace picked up, with daily status meetings, periodic checkout tests, simulated countdowns and the like.

Childs was launch vehicle Test Conductor for the last Saturn launch, SA-7, and explains his new assignment this way:

"There are several of us in the Technical Planning and Scheduling Office, and we're being cross trained so that each of us gets a broad experience by working through various positions for different missions."

Actually, Childs can rely on years of experience, for he has been at Cape Kennedy since 1956.

Born in Dothan, Alabama, and raised in Charleston, South Carolina, he graduated from the University of Florida in 1952 with a degree in Electrical Engineering.

For four and a half years after that he was a radar development engineer with the Sperry Gyroscope Company on Long Island, and then he transferred to the Cape as a design engineer with North American Aviation on their Navaho program.

In 1957 he joined the Army Ballistic Missile Agency's Missile Firing Laboratory, and became a Test Conductor first on the Redstone-Jupiter programs, and later with the Pershing program.

To add to his varied experience, Childs worked with NASA's Centaur launch vehicle before getting involved in Saturn operations.

-MORE-
Of all the launches he has participated in - and there have been a hundred or more - the SA-7 flight is most memorable to Childs, "because as the most recent one it is that much more significant to me."

The SA-9 Test Supervisor lives in Cocoa Beach with his wife, Marie Louise, and their two daughters, Diana, 9 and Karen, 7.
CAPE KENNEDY, Fla. -- "I think if a girl has the aptitude to get into the engineering field, she definitely should because the advancement opportunities are a lot better today than they were even two or three years ago,"

Speaking is the only woman civil engineer at the NASA Kennedy Space Center - petite Jeanette Denny of the Planning and Resources Office.

She doesn't consider her sex a hindrance in what is predominately a man's field, although she admits she has trouble convincing some people of her profession.

"When I tell anybody I'm a civil engineer, they do a double take then want to know if I build roads and bridges," she says. "Actually I'm more in planning and management side of things here, such as conducting floor space studies for the Information Systems Building on Merritt Island. We also get into a lot of engineering and electronics documentation work."

A native of Knoxville, Tenn., Jeanette holds the first Civil Engineering degree ever awarded at the University of Tennessee.

"When I enrolled in engineering," she recalls, "there were 700 men and six girls in our field."

She was crowned University Engineering Queen for four successive years and was also named the Engineering Dream Girl.

-MORE-
"I enjoy my work here because I like to be able to feel creative in some way," Jeanette says. "When I worked at the Oak Ridge National Laboratory it was mostly research, but here at the Kennedy Space Center I'm into a whole new engineering vocabulary, such as instrumentation, trajectories and the like. It's fascinating."
MERRITT ISLAND, Fla.—The Indian River Audubon Society has informed the John F. Kennedy Space Center, NASA, that eight bald eagle nests have been located in the Merritt Island installation or its immediate vicinity.

The Society noted that "in the light of the eagle failing to reproduce in other States, the Kennedy Space Center is of great importance for the perpetuation of the species and is an excellent sanctuary for the bird."

Mr. Lon Ellis, of Cocoa, representing the Audubon Society research department, advised: "We do not want the nests disturbed in any way."

One nest near the immense Vehicle Assembly Building has produced three young birds this Spring. Ellis noted this is a rare occurrence since one or two young birds are the rule.

The bald eagle is the National emblem.

#####
COCOA BEACH, Fla.—Three contracts, totalling more than
$2.5 million, have been awarded by the NASA Kennedy Space
Center for equipment used on launch complexes at both Cape
Kennedy and Merritt Island.

The largest contract, for $1,198,923, was awarded to
American Machine and Foundry Company for umbilical devices used
in servicing the Saturn V launch vehicle.

The devices, called tail fin service mast assemblies, will
provide fuel, liquid oxygen and air conditioning to the fin
section of the Saturn V's first stage.

Three masts will be installed at each of three launch pads
on Complex 39, now under construction on Merritt Island.

Second largest of the contracts, for $745,601.15, went to
Kaiser Aluminum and Chemical Sales for the fabrication of bulk
electrical cable for Complex 39.

The third contract was for $596,356 and it went to Spaco Inc.,
Huntsville, Ala. Spaco will fabricate interconnect cables for
joining terminal boards in the umbilical towers of Complexes 34
and 37 on Cape Kennedy and Complex 39.

+++++++
CAPE KENNEDY, FLA. -- Current emphasis on the recruitment of engineers for work at the Kennedy Space Center is on the new college graduate.

"Our efforts are currently concentrating on recent graduates, and there are several vacancies," says George English of KSC Placement and Recruiting Branch.

Most of the hires are graduate electrical, aerospace, mechanical, industrial and electronics engineers, with either bachelors or masters degrees.

The young engineers, English explained, are placed throughout the KSC organizations.

"They fill vacancies in launch vehicle operations, information systems, facilities, quality assurance, management analysis, and practically every other division requiring the services of engineers," English said.

English said there was a critical shortage of engineering graduates all across the country, and that most KSC hires come from southeastern colleges.

He added that the retention rate for engineers at the Kennedy Space Center and at other NASA centers is much better than throughout industry.

##########
CAPE KENNEDY, Fla. — A contractor employee at the Kennedy Space Center, Dick Shatsky of Ling-Temco-Vought, will travel to Tallahassee March 1 to help Brevard lawmakers introduce to the state legislature a new "Good Samaritan" bill.

Shatsky, an engineering writer in the Agena Missions Office, explains the proposed law this way: "If you see someone in trouble today, at the scene of an accident or if they are being attacked, and you come to their aid, they can wind up suing you, due to antiquated laws.

"I'm sure you've read of cases where people have drowned, or been beaten and robbed while others just stood by and watched. In many of these instances, the bystanders were afraid to lend assistance for fear of a law suit. Even doctors have become wary of stopping at the scene of an accident."

Shatsky's proposal is to update the Florida statutes by eliminating the penalties that can be imposed upon those who, in good faith, stop to aid someone in need of help. Already 32 states in the nation have taken some form of action on this problem.

Shatsky, first vice president of the Eau Gallie Jaycees, got his club's approval, then got state Jaycee backing. Brevard Representative James Pruitt and State Senator James Dressler were so enthusiastic about the proposed piece of legislation, that they will introduce it to the Florida lawmakers this year, in hopes a "Good Samaritan" bill can be passed.
Shatsky will go to Tallahassee to explain the intricacies of his proposed bill in legislative committee meetings.

#######
CAPE KENNEDY, Fla.—With engineers in such a fast-paced field as rocketry, one of the main, recurring problems is keeping up with new developments.

At the Kennedy Space Center a number of training programs are conducted to help engineers.

"We have a number of short, specialized courses, taught by various universities and colleges, for instance," says KSC Training Branch Chief Ernie Spivey.

"These usually last for one or two weeks' duration. Then too, our engineers attend a lot of conferences and symposiums during the year, particularly when they are held at other NASA centers," Spivey said.

He also noted that many engineering employees are enrolled, on the graduate level, at such schools as the Brevard Engineering College, where they attend specialized courses closely related to their specific field.

"And we're getting good response in attendance to the GENESYS program," Spivey added, commenting on the University of Florida's Graduate Engineering Education System.

########
CAPE KENNEDY, Fla. — More than 1,000 NASA engineers at the NASA Kennedy Space Center are celebrating National Engineers' Week (February 21-27).

In support of the nation's various space programs, KSC has engineers in a wide variety of fields. Much of the work here, in fact, is pioneering new engineering techniques.

The engineering contributions to the advancements of rocketry, made at the Kennedy Space Center, are immeasurable.

Specific classifications range from launch vehicle and spacecraft engineers to tracking and instrumentation specialists.

Under launch vehicle operations alone engineers are classed in the following fields: radio refrequency, telemetry, measuring, electrical systems, gyroscope and stabilizer systems, guidance and control, computer systems, flight control, mechanical structures, propulsion, propellants, oxidizers and gases.

Dozens of skilled KSC engineers under Facilities are helping supervise one of the nation's major construction jobs -- the building of the Spaceport on Merritt Island.

Throughout the Kennedy Space Center and in major aerospace industrial plants across the nation, quality assurance and quality control engineers insure NASA that work of the highest standards is carried out on government projects.

-MORE-
In tracking and instrumentation systems, engineers keep up to date on the latest developments in this rapidly progressing field.

Program management industries and systems engineers cut through excess cost and time to see that KSC fulfills its missions in the most efficient manner possible.

In management analysis and computer programming, other KSC engineers are participating to aid the overall operation of the Space Center.

And while hundreds of engineers keep things humming in the operational end of things, many others, including design and planning specialists, are looking ahead to the future, and helping coordinate the growth of the Spaceport.

Just about every type of engineering degree is represented here, including electrical, electronic, mechanical, civil, industrial, aeronautical, and many, many others.

Within the entire workforce, there is an accumulation of tens of thousands of years experience in engineering. Many of KSC's engineers have advanced and are advancing into top level management positions.

############
CAPE KENNEDY, Fla.--Marjorie Read, secretary in the Kennedy Space Center Information Systems Tracking Branch, will close out a 30 year Government service career tomorrow when she retires.

She began work with the Department of Justice in Washington in 1934, and spent more than 27 years with the Department of Interior, many with the Bureau of Mines.

Marjorie came to the Kennedy Space Center late in 1962. She plans to move to Clearwater.

"I'm going to do all the things I've been wanting to but haven't had time for," she said, "For one, I'm going to the beach a lot, and I plan to be active in a new camera club."

Commenting on her career, Marjorie said, "it's been interesting and exciting, and I wouldn't have missed it for the world. I've worked with so many nice people, both here and in Washington."

Among the most memorable moments of her Government service were a visit in her Washington office by Admiral Richard E. Byrd, and the viewing of several Saturn launches at Cape Kennedy.

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FOR RELEASE: February 25, 1965

KSC-43-65

COCOA BEACH, Fla.—A contract supplement for more than $41 million today was awarded by the NASA Kennedy Space Center to the Chrysler Corporation for support services on the Saturn I and Saturn IB space programs.

The Award supplements an existing contract between Chrysler's Space Division at New Orleans and the Marshall Space Flight Center in Huntsville, Ala.

Under terms of the cost-plus-award-fee supplement, Chrysler will provide pre-launch, launch and post-launch services to the Kennedy Space Center. Chrysler makes the first stages of both Saturn I and Saturn IB at the Marshall Michoud facility near New Orleans.

Period of performance of the contract is through June 30, 1968.

Actual amount of the award was $41,200,128 with $36,617,410 earmarked for Saturn IB support and $4,582,718 for Saturn I. Only two Saturn I's remain in the current launch schedule. As presently planned, 12 Saturn IB's will be launched from Cape Kennedy.

Chrysler will support Kennedy Space Center at Launch Complexes 34 and 37 on Cape Kennedy in the following areas:

Installation, checkout and maintenance of ground support equipment, including propellant storage and transfer systems; pneumatic systems; electrical systems; launch site radio frequency and telemetry checkout equipment; ground measuring stations.

Modifying, installing and checking out portions of the propellants and pneumatic systems on Launch Complexes 34 and 37 required for Saturn IB; completion of environmental control systems begun under previous contracts.

Launch site documentation handling; spare parts support and refurbishment of pads after launch.

Engineering assistance to KSC's Launch Support Equipment Engineering Division in design modifications at Complexes 34 and 37.

The supplemental contract means the addition of some 250 persons to the Chrysler Space Division in the Cape Kennedy area. Presently there are 300 Chrysler specialists and technicians assisting KSC in launch activities of Saturn I.
CAPE KENNEDY, Fla. -- Engineering at the Kennedy Space Center is no longer strictly a man's field.

Qualified career women today hold a number of key positions in engineering and related areas.

"We hire new engineers strictly on their qualifications, sex has nothing to do with it," says Gene Balstad, KSC's equal employment opportunities coordinator.

"And more and more women are becoming qualified in professional fields," he added, "particularly in the area of mathematics."

Sally Gruben, for instance, is an aerospace technologist, data systems, with KSC's Data Acquisition and Systems Analysis Division. A mathematics graduate of the University of Minnesota, she is a computer programmer.

Janie Callahan is another mathematics expert. She has a master's degree from Texas Christian University, and is currently an aerospace technologist, involved with orbit and trajectory studies.

Coralee Whisenant, an aerospace technologist, Facilities and Support, is in KSC's Advanced Studies Office. She has a degree in Mechanical Engineering from the University of Arkansas.

Her work covers such heady subjects as the seismic study of dynamic behavior of launch facilities foundations and surrounding areas - to a probabilistic Fourier analysis of surface and wind variation with altitude.

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FOR RELEASE: IMMEDIATE  
February 28, 1965

KSC- 44-65

HUNTSVILLE, Ala.—Elements of the next Saturn I rocket (SA-8) scheduled to be launched in late spring are arriving at the Cape Kennedy launch site.

The first industry produced Saturn I booster (S-I-8) is scheduled to arrive aboard the NASA barge Promise.

The Chrysler built Saturn booster was shipped Feb. 22 to NASA's John F. Kennedy Space Center from the NASA Marshall Space Flight Center's Michoud Operations in New Orleans.

An SIV second stage (S-IV-8) was air lifted to the Cape Friday (Feb. 26). The S-IV was built at Douglas Aircraft Company test site.

The vehicle's instrument unit is scheduled to leave the NASA Marshall center March 1 aboard an aircraft.

Other elements of the 190 ft. high vehicle are scheduled to arrive at the launch site in the next few weeks. An Apollo command module will be flown from the Manned Spacecraft Center, Houston, and an specially modified Apollo service module will be shipped soon from the Marshall Center.

The fully assembled Saturn I vehicle will loft the second Pegasus meteoroid detection satellite.

Pegasus I is presently sending information to ground stations on the size and frequency of meteoroid strikes. The satellite, which has a 96 ft x 14 ft. wingspand, was successfully orbited Feb. 16.

The second Pegasus, built by the Fairchild-Hiller Corp., Bladensburg, Md. will be flown to the Cape in the next several weeks.

Assembled and tested by Chrysler's Space Division in New Orleans, S-I-8 is one of the two remaining first stages to be launched in the Saturn I program. Previous Saturn I boosters were built at the Marshall Space Flight Center in Huntsville.

All eight Saturn I launches have been successful.

The eighth vehicle to be flown, SA-9, was launched out of sequence before SA-8 because its assembly and ground testing were completed earlier.

########
MERRITT ISLAND--The Kennedy Space Center's third skyscraping mobile launcher was "topped out" Wednesday at Merritt Island when a huge hammerhead crane was hosted to the top of the 445-foot-tall structure.

It was the last major piece of work in the steel construction of the tower.

Prime contractor for the three launchers is Ingalls Iron Works of Birmingham, Alabama.

It is on these steel giants that Saturn V/Apollo moon rockets will be assembled for flight, moved to the launch pad and launched.

Construction on the first mobile launcher was completed in September, and steel work on the second one was finished last month.

There are about 4,000 tons of steel in the framework of each tower.

The launchers are now being outfitted with ground support equipment and electrical apparatus. Overall planned completion dates for the three are March, July, and December, 1966, respectively.

The mobile launchers have been designed under the supervision of the Kennedy Space Center's Launch Support Equipment Engineering Division. John Potter is KSC's technical representative for the project.

Ingall's sub-contractors on the project are the Otis Elevator Company; the W. V. Pangborne Company (electricians); the J. L. Manta Company (painters); and the Colby Crane Company.
The mobile launchers were designed by the architectural-engineering firm of Reynolds, Smith and Hills of Jacksonville.

###
CAPE KENNEDY, FLA. - Firms or institutions in the State of Florida received awards totaling $30,536,265 from the Kennedy Space Center, during FY 1964, or 31.1 percent of the Center's contracts.

KSC purchase orders or contracts went to business firms in 42 states for a total of $98,280,000.

Other States in the top 10 of KSC business were:

Alabama, $28,360,282; California, $9,680,157; Pennsylvania, $7,338,239; Michigan, $5,805,343; Tennessee, $3,376,748; New Jersey, $3,002,244; New York $2,955,579; Ohio, $1,080,098.

Small businesses received 13.7 percent of the awards, or $13,416,700.

###
COCOA BEACH, FLA.- Nearly $370,000 of a total $4,010,844 in new research grants and contracts have been awarded by NASA to higher institutions of learning in Florida.

The University of Florida at Gainesville received one of the highest individual grants -- $335,000 -- for a multi-disciplinary program of research in space related sciences and technology.

Florida State University at Tallahassee was awarded $33,290 for a study of crystallization, crosslinking and dimensional changes during the crystal-liquid phase transition of oriented polymeric systems.

The University of Miami in Coral Gables received $1,387 for partial support of the second Coral Gables conference on symmetry principles at high energy.

In all, NASA awarded 46 research grants and contracts to 41 universities, colleges and private research institutions.

###
COCOA BEACH, FLA. - The Kennedy Space Center has extended for the second year two of the major contracts under which the NASA Merritt Island spaceport is being operated.

The contract extensions were negotiated with Trans-World Airlines, for base support services; and Ling-Temco-Vought, Information services (formerly administrative and management services).

The new contract with TWA is for $15,664,721, bringing the total dollar value of the contract negotiated last year with TWA to $23,767,553.

Under terms of the contract, TWA will continue to provide such services as maintenance and operation, supply, fire protection and prevention, medical services and security to KSC, for a period of one year. The original contract stipulated that another contract for a third year may be negotiated by KSC and TWA.

The contract with Ling-Temco-Vought is for $5,602,055. This brings the total dollar value of the LTV contract with KSC for two years to $9,804,946.

LTV provides to the Space Center general administrative services as well as such special services as photographic, reproduction and automatic data processing.

The original one year contract entered into last year had provision for negotiating for two additional one year extensions.

###
CAPE KENNEDY, FLA.—For 10-year-old Charles Kahwaty of Fair Lawn, New Jersey, the mail service just wasn't fast enough!

He wrote to the Kennedy Space Center with this request:

"I understand you are sending a two-man Gemini spacecraft into space on March 23. Since that is on a schoolday I would like to request that you don't send it up in the morning. Please send it on a weekend or after 3:30 in the afternoon. Your cooperation would be appreciated."

Unfortunately, the letter arrived too late at the Cape to delay the flight, but perhaps young Charles had an understanding teacher who recessed the class in time to see the liftoff on television.

#####
CAPE KENNEDY, Fla.—Dorothy Bennett of the Kennedy Space Center's Launch Support Equipment Engineering Division at Huntsville has received the largest suggestion cash award ever presented to a non-professional KSC employee.

The award, presented to Miss Bennett by KSC Director Dr. Kurt H. Debus at an awards ceremony last week amounted to $450. She suggested that disinterested KSC and Marshall Space Flight Center Divisions be removed from present microfilm card distribution lists.

Some checking by Miss Bennett revealed that hundreds of thousands of dollars could be saved by purging and streamlining microfilm operations that are of no use to organizations that have and maintain card files. One operation, she discovered, cost approximately $150,000 and had not been utilized since issue.

With an eye on time and cost reduction, she suggested that KSC and MSFC Divisions be given the choice of accepting only those cards that are pertinent to their particular operation, or refusing to accept any cards for which there is no need. In the past it has been policy to send all cards to the divisions whether or not the need existed.

Miss Bennett was also presented a 15-year NASA service pin and certificate at the ceremony.

######
COCOA BEACH, Fla.--Mid-way through the question and answer period of the
GT-3 post-flight press conference last week a reporter asked Gus Grissom if he
could give a comparison of his two rides into space, one atop a relatively
small Redstone in 1961, and the other atop the much larger, more powerful
Titan II booster.

"Could you sense any difference in seat-of-the-pants flying?" Grissom was
asked.

"I would say that they were very similar, except the Titan flight was a
lot longer," Grissom replied. "But the Redstone flight was very smooth as I
recall, and we could hear booster noise and aerodynamic noise the same as we
heard on the Titan. I really don't see a great deal of difference."

######
CAPE KENNEDY, FLA.—Today, April 1 marks the fifth anniversary of the TIROS I launching from Cape Kennedy.

Since April 1, 1960, nine TIROS (Television Infrared Observation Satellites) have been successfully fired into orbit and they have transmitted nearly half a million useable weather photos back to Earth.

John Neilon, Associate Manager of the Goddard Space Flight Center's Launch Operations crew at the Cape, recalls that the countdown for TIROS I was plagued with a faulty beacon reading which nearly scrubbed the mission.

"It was finally launched at about 4 in the morning," he said, "and we knew in about 90 minutes that it had made orbit all right."

Neilon said the first TIROS was launched by an Air Force Thor-Able vehicle, and that the eight other weather satellites were orbited by NASA Delta vehicles.

Neilon was Delta Project Manager in 1960, and Don Sheppard of Goddard was spacecraft coordinator. Robert H. Gray, Goddard Launch Operations Manager, headed the group's operations at the time of the TIROS I flight.

In the short history of weather satellites, the TIROS pictures have enabled meteorologists to issue more than 2,400 storm bulletins and have helped weather men give advance warning for almost all hurricanes.

Through the "groundwork" laid in space by TIROS, officials now foresee the day of accurate long-range weather forecasting that will save nations literally billions of dollars annually in agriculture and other fields.

Neilon said two additional TIROS satellites are scheduled to be launched from the Cape later this year.
MERRITT ISLAND, FLA.--What happens to a Gemini manned spacecraft once the flight is over?

In the case of GT-3, it was flown back to Cape Kennedy--one day after the astronauts came back.

"We'll wash it down and contain any corrosion, then look at possible problem areas," said John Williams, Assistant Kennedy Space Center Director for Spacecraft Operations.

"We'll be going over the flight data in the next few weeks, and we'll refer to the spacecraft from time to time to look at specific areas," he added.

Williams said the GT-3 craft looks essentially the same as the Mercury capsules did following fiery re-entries that have been estimated at 3,000 degrees F.

The Gemini-3 spacecraft, like its pilots, Gus Grissom and John Young, hasn't stopped going since it came down from orbit March 23rd.

It is currently at the Kennedy Space Center's Pyrotechnic Installation Building on Merritt Island undergoing a series of postflight cleanup and checkout operations.

"One of the first things we did after it was returned to the Cape," says KSC engineer Dick Proffitt, "was to clean the salt water out of the spacecraft and remove pyrotechnic devices, such as the armed ejection seats.

(more)
"We'll then take core samples from the heat shield to see how much of it was burned away in re-entry," Proffitt said. "We will also weigh the capsule and record all the final switch positions in the cockpit."

#######
COCOA BEACH, FLA.--A contract for $1,307,347 has been awarded to a Texas company for engine servicing platforms to be utilized at the Kennedy Space Center's Launch Complex 39 on Merritt Island.

The firm, fixed price contract went to Space Corporation, Garland, Texas. Under the terms of the contract Space Corporation will fabricate, test, assemble, install and checkout the servicing platforms to be used in the Vehicle Assembly Building, mobile launchers and Pad A of the complex.

The contract is scheduled for completion by April, 1967. Work will be done in the Cape area and in Garland.

Eleven companies were invited to bid on the work. Four responded.

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CAPE KENNEDY, FLA.--The aftermath of the recent Gemini-3 orbital flight of astronauts Gus Grissom and John Young is still being felt at the Kennedy Space Center.

An average of 600 to 1,000 letters a day, from youngsters all over the world, are being received by NASA at Cape Kennedy. Most of the mail requests photographs and information on space in general and on the Gemini flight in particular.

"Prior to GT-3 our normal run of letters was about 150 a day," says Forrest Rhodes, Chief of the Kennedy Space Center's Mail section.

He explained that all mail is processed through his department within one day. Letters addressed to the astronauts are forwarded directly to NASA's Manned Spacecraft Center in Houston, Texas. Rhodes said this involves about one fourth of the mail received at the Center.

The bulk of the letters are sent first to KSC Educational Officer Harold Mehrens. He quickly screens them for any requests from school teachers and educators. He pulls these from the stacks of mail and answers them quickly.

Other letters are then sent to the Center's Presentations section where they are screened and sorted.

"We break them down into six categories," says Joe Torre of Presentations.

"Most of the youngsters ask for general information on space or about the astronauts, and we send them brochures and fact sheets," Torre said.

"Then we have letters that require specific answers," a girl from New York for instance, wanted to know about the magnetothermodynamic drag heat shield,
and a Chicago teenager wanted a replica of Hermann Oberth's first rocket concept."

Then there was the Georgia TV station that wanted information to help produce a show called "the Role of the Chiropractor in Outer Space."

Sometimes this requires extra research, but often we have prepared material to handle it," Toree said. "We have about 50 different brochures that cover everything from bio-medicine to extra-terrestrial research."

Another category is inventions and contributions. Many youngsters send money to pay for photos and literature. This is returned. Others send in invention ideas, often with detailed drawings attached. These are forwarded to NASA Headquarters for careful screening.

Letters seeking advice about job opportunities, spaceport tours, legal advice or other specific information are forwarded to the appropriate office.

Roughly five to 10 percent of the mail is from foreign countries. This is translated by Jacquie Herndl of the Kennedy Space Center, who speaks several languages, including German, French, Spanish, Italian and Portuguese.

Finally, there is a miscellaneous category, which includes crank letters, one that comment on space events without requesting anything, and thank you notes, among others.

Most mail can be answered within two or three days of receipt at the Center. Letters requiring specific answers or translation take a little longer.

Free space information on NASA activities at the Kennedy Space Center is available to anyone who writes. Letters should be addressed care of the Center's Public Affairs Officer.

Not all requests can be fulfilled, however. For instance, there was the 10-year old lad who wrote just prior to the astronaut's flight.

"I understand you are sending a two-man Gemini spacecraft into space on
Tuesday," he said. "Since that is a school day I would like to request that you don't send it up in the morning. Please send it on a weekend or after 3:30 in the afternoon. Your cooperation would be appreciated."

####
NEWS RELEASE
JOHN F. KENNEDY SPACE CENTER, NASA
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Public Information Office, Cocoa Beach, Florida
Phones: SU 3-7781 & SU 3-7782

FOR RELEASE: April 9, 1965
Released simultaneously with Washington and Houston

KSC-80-65

Control of manned flight missions from the new Mission Control Center
at NASA's Manned Spacecraft Center, Houston, will begin with the forthcoming
Gemini-Titan II (GT-4) flight.

Dr. George E. Mueller, Associate Administrator for Manned Spaceflight,
announced the change of primary flight control from the Mission Control Center
at Cape Kennedy to the Mission Control Center at Houston.

The GT-4 flight is scheduled for the third quarter of this year.

Mueller said Christopher C. Kraft will serve as mission director for the
four-day orbital mission. He was mission and flight director for GT-3, a
successful three-orbit mission completed March 23.

The Mission Control Center at Houston will be operated on a three-shift basis
approximate with an 2-hour overlap between the shifts to insure smooth transition.

Kraft will also serve as one of three flight directors, the other two
being John Hodge and Gene Kranz. Because of his dual role, Kraft will divide
his time before launch between Cape Kennedy and the Control Center at Houston.

He will return to Houston on the afternoon prior to launch and control
the final hours of the countdown from MSC.

During the launch phase of the count, the Cape Kennedy Control Center will
provide backup in trajectory and launch vehicle telemetry areas. NASA's Goddard
Computer Center will follow control of the flight on a backup basis and will
information directly to Cape Kennedy during the launch phase.

-MORE-
Mueller said he was very pleased with the performance of the Houston Control Center during the GT-3 mission. The Houston Center served as backup to Cape Kennedy for this flight.

Mueller said there are no major problems remaining in the transition from Cape Kennedy control. The last remaining major task involved linking the mission simulator at Cape Kennedy and the Houston Control Center. This will permit the crew to fly simulated missions at Cape Kennedy while being controlled from Houston—as would be done in a normal flight situation.

The Mission Control Center-Houston has four major functional systems—display and control; communications; simulation, checkout and training (SCAT); real time computer complex (RTCC).

The Mission Control Center provides centralized control of manned space-flight programs—including full mission control from launch through recovery. Technical management is provided in areas of vehicle systems, flight crew activities, recovery support and ground network support operations.

In addition to 384 high resolution television monitors in 140 control consoles, the Center features an expanse of rear projection screens on which are flashed TV images, maps, trajectories and other information vital to mission controllers. The screens are 10 feet high and total 60 feet in width.

Ringing the top of the large-screen displays and the operating consoles are computer-driven time and data displays serving to report instantly the status of astronauts, spacecraft and supporting operations to the mission flight director.

Most of the information to be displayed will reach the mission control center over land lines.

#######
MERRITT ISLAND, Fla.—The Kennedy Space Center has worked with County leaders to make the federally owned land known as Playalinda Beach available for public recreation with two underlying assumptions:

1. That the Beach would be open to all persons without distinction to color.

2. That county officials would assume full responsibility for the maintenance of law, order and safety at the beach during any period it is available for public use.

Dr. Kurt H. Debus, Director of the Kennedy Space Center, stated:

"That incident which happened last weekend is unfortunate, since further acts, or threats by a very few people could jeopardize the use of the Beach, by the people in general. If difficulty would continue to arise in implementing a basic public policy of non-discrimination, the Kennedy Space Center would be obliged to withdraw the Beach from public use.

"However it is re-assuring that the proper Brevard County officials have taken rapid and effective measures to make known this policy of non-discrimination and provide adequate law enforcement in the vicinity of the Beach. I trust that this arrangement will make it possible for KSC to keep Playalinda open for the benefit of all the people."

#####
CAPE KENNEDY, Fla.—Several Kennedy Space Center employees have formed a new club called "Spaceport Flyers, Inc," and members are being sought.

President Walt Barney said the club owns a Cessna 171 single-engine plane, which is essentially a standard 170 model with a tri-cycle gear.

"We have two classes of membership open," Barney said. "Class A requires an initial fee of $500 and an hourly flight charge of $7 an hour. $400 is returnable if the member has to leave the club.

"Class B requires only a $250 initial fee, and the flight charge is $9 per hour, with $200 returnable."

Barney said the plane is available on a first-come-first-serve basis, and may be used either for pleasure or for cross-country business trips. The plane is located at the Cocoa-Titusville airport.

Club officers include Jerry Schiedel, vice president; Charles Longacre, secretary; Eugene Sweat, operations officer; and Richard Bohlmann, maintenance officer. Viron Payne rounds out the club's roster.

Anyone interested in joining should call any of the present members. At least a private pilot's license is required.

#####
MERRITT ISLAND, Fla.--More than 30,000 visitors have taken advantage of the Kennedy Space Center's Sunday open house at Merritt Island by driving through NASA's Spaceport.

An average of 2,100 have toured past such sights as the 525-foot-tall Vehicle Assembly Building, the mobile launchers and the crawler transporter since the facilities were opened to the public in January.

More than a third of the visitors have been from out-of-state. Representatives of 29 states as well as several foreign countries, including Belgium and Germany, have made the tour.

"Can we take pictures?", is the most common question asked Spaceport security patrolmen by the motorists.

They can.

#####
CAPE KENNEDY, Fla.--NASA won some new friends recently through the showing of space films at the St. Augustine School for the Deaf and Blind.

Although the youngsters - all Explorer Scouts - couldn't hear a word of the sound films, interpreters kept them informed through the finger alphabet.

The films, which included "The John Glenn Story," and "The Flight of Faith Seven," were supplied by the Kennedy Space Center's Audio/Visual library.

Ralph A. Haimowitz, Scout advisor, wrote to thank NASA for the use of the films. "We were hard put to keep up with the questions they had about the astronauts and their space flights," he noted.

"We hope to instill a desire for knowledge in the fields of astronautics and the space program," Haimowitz said. "We feel that this may help to produce a few of our future technicians, scientists and astronauts."

Films in the KSC library are available to members of educational, civic, industrial, professional, youth activity and government organizations, free of charge.

#####
CAPE KENNEDY, Fla.--Men walking around the Hangar S area of Cape Kennedy in space suits complete with helmets are not astronauts gone astray. Rather, they're Kennedy Space Center and contractor employees trying on new "Scape" outfits.

Scape (Self-Contained Atmospheric Protective Ensemble) suits are required by anyone working in hypergolic fuel areas at Cape Kennedy or on Merritt Island. They are strikingly similar to the astronauts' suits.

"Contractor personnel have been wearing this type suit while working in the Gemini-Titan area," says Harold Powell of KSC's Propellants and Ordnance section, Launch Support Operations Division.

Powell and his co-workers have been busy recently determining future requirements at the Center for Scape suits.

Hypergolic fuels will be used for Apollo and other spacecraft propulsion systems, Powell pointed out. Consequently, capsule contractors, as well as KSC Systems Engineering safety and quality control employees will don the protective clothing while working in sensitive areas.

"We'll begin with the operational use of our suits this June," Powell said. "They're made of butyl rubber and have an environmental control system (backpack) attached, as well as a helmet."

Employees can safely work in the leak-proof suits for an hour at a time.

Essentially, the sealed suits are needed as protection from toxic fumes of hypergolic fuels, and Powell said because of this each suit will be checked out as thoroughly as the astronauts' suits are.

-MORE-
Initially, 50 suits were ordered, and more will be purchased, depending upon the requirements.

Meanwhile, training programs are being set up to school workers who will need the suits.

Personnel of the Launch Support Operations Division, utilizing the capabilities of the Bendix Corporation established under a support contract, will support KSC for all protective propellant handling gear, and are the source for splash suits, gas masks, air packs and other equipment for propellant service as well as the Scape suits.

#####
MERRITT ISLAND, Fla.--A space-age construction milestone will be reached today at NASA's Merritt Island launch area building, where lunar rockets will be made ready for flight, is topped out in a ceremony signifying the structural steel for the world's largest building has reached its maximum height of 525 feet.

The huge structure - called the Vehicle Assembly Building (VAB) - is scheduled for completion in 1966 as an integral part of Launch Complex 39 where Apollo-Saturn manned moon rockets will be launched on their lunar journey within this decade.

Within the 129 million cubic feet of the VAB, Apollo-Saturn V launch vehicles will be assembled in an upright position in a controlled environment. When checkout is complete, they will be moved to the launch pad three miles away, ready for launch within a matter of days. This reduces pad stay and allows a greater launch rate than conditional methods which require a rocket to be prepared on the actual launch pad.

The topping out ceremony, traditional with ironworkers, will begin at 11 a.m. It will conclude at 12:15 p.m. when a 38-foot, four-ton steel beam is hoisted into place in the upper reaches of the VAB's steel skeleton. The beam bears the signatures of thousands of employes of the NASA Kennedy Space Center, the Corps of Engineers and the construction workers employed on the Spaceport project.

Among the dignitaries/present for the topping out ceremonies were William C. Lilly, director Manned Spaceflight, NASA Headquarters; Maj. Gen. A. C. Welling, division engineer, Corps of Engineers; J. D. Rollins, president, American Bridge Division, U. S. Teel; Dr. Kurt H. Debus, director for the Kennedy Space Center and members of his staff.

-MORE-
The VAB will cost an estimated $100 million when completed. It will contain some 50,000 tons of steel. The building--525 feet tall, 518 feet wide and 716 feet long--rests on some 4,000 steel piling driven 160 feet into the Merritt Island soil.

It is the largest building in the world in terms of volume and is the tallest building south of the Washington Monument.
MERRITT ISLAND, FLA.--The orange and white ring-sail parachute that bore Astronauts Gus Grissom and John Young and their spacecraft, Molly Brown, to an Atlantic Ocean touch-down, was packed on the longest "operating table" in the world at the Kennedy Space Center.

The table was located in a Merritt Island building which was designed around a Gemini and Apollo main parachute packing table where NASA and contractor specialists maintain the most stringent parachute control and inspection procedures ever undertaken in the aerospace field.

This meticulously clean and environmentally controlled one-story structure houses the main parachute table, a 185-foot long by 4-foot wide expanse of specially coated material identical to that used in hospital operating tables. This table, grounded every 30 feet, eliminates all static electricity from the spacecraft's main parachute.

A smaller table, 45-feet long by 3-feet wide, is used to pack the personnel, pilot, and drogue parachutes.

KSC Engineer Bill Beeker says the parachutes are packed with "tender loving care." Each suspension line has a minimum tensile strength of 550 pounds. The nylon material can withstand a dynamic pressure of 120 pounds per square foot.

Parachutes are packed in their small containers under tremendous pressure and then installed in the rendezvous and recovery section of the Gemini spacecraft.
Without need for repairs, a normal packing operation requires 12 hours. Repairs are handled in a special room containing four sewing machines.

High over the desert at El Centro, California, Gemini parachutes have been tested in a realistic environment closely approximating spacecraft reentry and parachute deployment.

A built-in safety factor exists in the spacecraft in event the main chute fails to deploy. The astronauts can fire a pyrotechnic device which will eject them from the spacecraft and the astronauts would use their personnel parachutes to land.

With the advent of flight-ready Apollo spacecraft, Beeker says that it will require 3 weeks to pack the three main parachutes for the command module.

With available space and manpower, this busy group of specialists is now looking forward to the day Apollo command module, suspended by three main parachutes, descends from the sky following her historic lunar journey.

#####
The mail and postal activities of the John F. Kennedy Space Center, NASA, have experienced a substantial increase in mail volume directly related to the growth of the Center. In June, 1963 an average of seven bags of U.S. mail was received daily. By June, 1964 the daily average had increased to 28. It is now over 40 bags per day.

The volume of outgoing mail, over the same two-year period, has quadrupled. Similar increases have been experienced in the volume of registered, certified, insured and other special types of mail.

These workload statistics were presented to the U.S. Postal Department in the Fall of 1964 and prompted a detailed study by that Department of the growth of the Kennedy Space Center and means of effectively serving its postal requirements. This study coincided with the Department's overall study of its mail distribution system based on use of ZIP codes and increased mechanization.

As a result of these studies the Office of the Postmaster General proposed to establish a contract post office on the Kennedy Space Center, Merritt Island, as a branch of the Orlando, Florida Post Office. The Kennedy Space Center accepted the offer and is working out details of the contract operation with postal officials. The new facility will open July 1, 1965 and will cancel outgoing mail from Kennedy Space Center, Florida.

The Postal Department will initially assign two ZIP codes to the new office. One will be reserved for official mail and the other will be assigned for use by other customers of the branch office.

-more-
The Kennedy Space Center anticipates two immediate benefits from the branch office operation:

1. The Center and its contractors will receive incoming mail from one to one and a half days earlier.

2. Outgoing mail can be accepted up to 4:00 P.M., instead of 1:00 P.M., permitting more timely dispatch of large quantities of mission data and mail to such points as the Marshall Space Flight Center, Huntsville, Ala., the Manned Spacecraft Center, Houston, Texas, and the Headquarters of the National Aeronautics and Space Administration, Washington, D.C.

#####
MERRITT ISLAND, Fla.--The first wave of NASA Kennedy Space Center employees from the Base Communications Branch and the Transportation Office -- moved into the new Headquarters Building early this week.

About 45 Civil Service personnel were involved in the initial move. Others from scattered office sites at Cape Kennedy and in Cocoa Beach, will move in succeeding weeks until more than 1,700 employees have been relocated in the building by mid-August.

"The move will be a tremendous help to us," said Jim Keith, acting chief of KSC's Technical Services Division, of which the Communications Branch is a part.

"Before, our people were scattered all over the area in trailers and temporary buildings and it has been difficult to effect proper coordination. But by all being under one roof our operations should be a lot smoother," Keith said.

Jim Herring, Chief of the Travel Office, agreed. "We have a lot better working facilities here, and by having all our people together, we can effect a better use of personnel," he said.

Secretaries were busy unpacking cardboard boxes of supplies and personal item in their new quarters. Office furniture was moved during the weekend so employees could continue work without disrupting normal operations.

Next Monday some 150 employees under Rocco A. Petrone, the Director of Plans, Program and Resources, will move into the building.

#######
CAPT. KENNEDY, Fla.--Twenty-five years ago, in 1940, Bill Allaback, of the Kennedy Space Center's Planning and Technical Support Office, entered Otterbein College in Westerville, Ohio.

This May 30th, a quarter century later, he will receive his bachelor's degree in Business Administration, from Rollins College in Winter Park. At the same time his daughter, Julie Ann, will graduate from Satellite Beach High School.

World War II, a family and various jobs across the country kept Allaback from getting his degree in the normal amount of time.

"Oh, I guess I have enough credits, something like 194 or so, to have a Master's degree," he says, "but they were not correlated."

"Overall, it's been a worthwhile experience," Allaback said. "But once you're off the campus and out in life trying to make a living, it takes real determination to stay with it.

"The most difficult part of studying is to take the time from family and social life. It's hard to work all day then come home to concentrate on intense studies."

Allaback, who joined NASA in 1961, views his degree as a working tool.

"I'm using the knowledge I've gained everyday on the job in management problems that crop up, for instance," he said.
CAPE KENNEDY, Fla.--The Kennedy Space Center is launching a campaign for all local NASA employees to submit catchy cost reduction slogans and symbols. Cash prizes of $250 will be awarded for each prize winning symbol and slogan, according to KSC contest manager, Ernie Swieda.

One of the contest's purposes is to stimulate greater awareness and participation in the NASA Cost Reduction Program.

Deadline for submission of entries from local NASA employees is May 28. These will then be sorted, screened, evaluated and winners selected by a KSC panel of judges.

Local contest winners, in addition to receiving prizes here, will compete in the NASA-wide contest, which carries top prizes to each category of $500.

###
CAPE KENNEDY, Fla.--The Kennedy Space Center's Raymond Mark had an unusual visitor in the generator room at Launch Complex 37 recently - a carrier pigeon.

"We found it on top of a generator," Mark said. "It must have flown in when someone opened the door."

The bird was banded. Mark wrote down the numbers on the band, then released the pigeon. He called the information into Curtis Wilson, Manager of the National Wildlife Refuge on Merritt Island.

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KSC-102-65

KENNEDY, Fla.—One of the key people involved in the launch of the Project FIRE vehicle was Bob Searle, Atlas-Agena group chief engineer for the Goddard Space Flight Center's Launch Operations Branch at Cape Kennedy.

He supervises NASA's systems engineers on Project FIRE and Atlas-Agena missions. Goddard is responsible for technical direction of the launches of most of the unmanned spacecraft at the Kennedy Space Center.

Objective of Project FIRE, Searle explains, is to study the total heating effects on Apollo shaped reentry vehicle and also to study the attenuation of radio signals during that short period of reentry at the high velocity that the Apollo vehicle will see on return from the moon.

Although the flight of about 1,000 miles lasts no more than 30 minutes, the data needed can only be obtained during a 40 second period when the FIRE vehicle plunges back through the earth's atmosphere at a searing 37,000 feet per second. This is far faster than a normal ballistic vehicle would reenter.

The group of Goddard engineers under Searle are responsible for technical direction of the flight in such areas as propulsion, guidance and controls, systems, ground support equipment, telemetry and RF systems and data, etc.

Searle has been with Goddard's Launch Operations crew since February 1963. For four years before that he was with Boeing's Minuteman project as a systems engineer, both at Cape Kennedy and in Seattle, Washington.

-MORE-
Earlier, he was a project engineer, at the Engine Test Facility of Arnold Engineering and Development Center, Tullahoma, Tennessee.

A native of Portland, Maine, Searls graduated from Georgia Tech in 1951 with a degree in electrical engineering.

He and his wife, Dola, live at 186 SE 1st Street, Satellite Beach.
MERRITT ISLAND, FLA.—The first of four Apollo spacecraft test stations has been declared operational by NASA Kennedy Space Center engineers at the Manned Spacecraft Operations building on Merritt Island.

 Called Acceptance Checkout Equipment for Spacecraft (ACE-S/C), the station was conceived and designed by NASA engineers to provide a high speed, accurate, and reliable system for testing sophisticated spaceflight vehicles such as the three-man Apollo spacecraft.

The test station allows a relatively small engineering staff to continually review more than 25,600 spacecraft test samples per second. This system monitors approximately 1,500 spacecraft operational parameters.

Consisting of high-speed computers, display consoles, and recording equipment ACE-S/C interrogates the spacecraft systems and automatically gathers, processes, evaluates, and displays the test data in split seconds for evaluation and diagnosis by test engineers. Data is also recorded and stored for future analysis.

The ACE-S/C station has been undergoing verification operations by engineers from NASA, the systems prime contractor General Electric Co., and associate contractors Control Data Corp. and Radiation Inc.

A network of cables ties ACE-S/C with the launching pad, the 525-foot Vehicle Assembly Building, and with the static test and fluid test facilities as well as the Manned Spacecraft Operations building.

The ACE-S/C station is located in three rooms overlooking the 106-foot high assembly and test area of the Manned Spacecraft Operations building.
The ACE-S/C Control Room houses primary controls and displays. From consoles, spacecraft communications, environmental control, and guidance and navigation systems will be tested simultaneously. Using television-like displays and other readout devices, including event lights, meters, and strip chart recorders, test engineers will maintain system status via undated data.

High-speed digital computers and documentators are housed in the ACE-S/C Computer Room to accept commands from the Control Room and relay them to the spacecraft and route them back to the Control Room.

A third room, the ACE-S/C Terminal Facility Room, provides a flexible interface between the remote spacecraft test areas and the ACE-S/C station.

ACE-S/C stations are also being installed at Oumann Aircraft Engineering Corp., Haupstr, for Apollo spacecraft lunar excursion module testing and checkout; the Fernald Spacecraft Center, Houston, Texas, for testing spacecraft in simulated space environments; and North American Aviation, Inc., Downey, California, for subsystem and integrated systems testing of the Apollo command and service modules.
CAPE KENNEDY, FLA.--At the very peak of the SA-8 vehicle--atop the S-I booster stage, the S-IV second stage, instrument unit, Pegasus package, Apollo boilerplate, and launch escape tower--is a tiny, cone-shaped object affectionately called the "Q-ball."

This 35-pound instrument, from its lofty perch a full 188-feet up on the SA-8 contributes important mission data during the first two minutes of flight, or until the escape tower is jettisoned high over the Atlantic.

"Specifically, the Q-ball measures the angle of attack Saturn rockets take on their flight path, that is their trajectory," explains KSC Systems Engineer Lamar Richardson of Vehicle Measuring.

"Electronic 'ports' in the Q-ball are tuned to telemeter back to earth and the pitch and yaw movements of the vehicle as it climbs into space," Richardson says.

Such measurements are needed to help engineers evaluate the overall flight performance.

"There is also an air density gauge in the Q-ball to relay this type information back to Earth," Richardson adds.

All Q-ball measurements must be so precise that great pains are taken to make such the instrument itself is properly aligned prior to flight.

About four weeks before scheduled liftoff KSC theodolite operators John Fagan and Bill Wright and engineer Bill Lewis take careful readings on the alignment of the surface on which the Q-ball will be placed. Once the readings have been
made and have met specific requirements, the Q-ball is mounted, and a cover is placed over it for protection from weather and other elements.

The cover remains until about T-eight minutes in the Saturn's countdown. Then air pressure is pumped into a rubber bladder in the cover and lifts it off. This is done remotely from the blockhouse.

The Q-ball, which measures roughly 13 inches in diameter at the base by 14 inches high, is made by the Astrionics Laboratory at the Marshall Space Flight Center in Huntsville, Alabama.

It has a total of about 10 measurements on it. Two pressure ports are lined up with the pitch axis of the Saturn, and two others are lined up with the yaw axis.

A differential pressure is exerted between these ports if changes in the bird's pitch or yaw are made during the flight.

An updated version of the Q-ball, with refined circuitry, will be used on Saturn IB manned flights of the future, and will relay data to the astronauts as part of a manual abort system.

Should strong side winds, for instance, push the rocket off course, instruments in the Q-ball would sense this and relay the information, via a slow divergence mode, to the pilots.

This would occur during the first couple minutes of flight, when the Saturn IB passes through the high dynamic pressure region.

########
MERRITT ISLAND, FLA.—When someone says the Kennedy Space Center at Merritt Island is buzzing with activity, they are telling the truth—literally.

Commercial bee keepers have about 1,500 colonies of bees on Spaceport property, leased from the Government. There are from 80,000 to 100,000 bees in each colony.

One site where 30 colonies are located is about one mile south of the Vehicle Assembly Building.

Spokesman Gerald Cramer said bees have been on the Island for years, and he is very happy with the arrangement under which NASA has allowed him to keep his hives.

Cramer explains that Merritt Island is a particularly good place for obtaining honey, because there are plentiful blooms from which the bees extract nectar.

Citrus trees and palmetto both produce a light nectar—honey that is the best on the commercial market. Cramer said each colony should produce about 100 pounds of honey per year to be worthwhile commercially.

"Bees are very well organized and have a fine communications system," Cramer pointed out. "They have ways of telling each other where the sources of honey are—the direction and distance.

"They can also sense when someone is afraid of them," Cramer said. "This is usually when they will sting. If you are attacked by bees, the best thing to do is put down your head and slowly walk away. Don't run."
Cramer said he was often stung during his early days of a beekeeper, but now he isn't bothered at all, even while working close to the colonies.

"Occasionally, bees will sting a person if he walks in their flight line when they are loaded down with honey," Cramer explained.

"And when a bee stings, never try to squeeze the stinger out. This punctures a poisonous sac, which then empties into your system. The best thing to do is gently scratch it out."
CAPE KENNEDY, FLA. -- A letter arrived from Houston last week addressed to NASA's Kennedy Space Center Director, Dr. Kurt H. Debus.

"Credit for the success of this Gemini flight -- or any space flight for that matter -- cannot be given to any one person. It belongs to the thousands of dedicated men and women, many of whom work at the Kennedy Space Center, whose combined efforts make our space accomplishments possible.

"We therefore extend to you and your people a 'well done' and many, many thanks for the fine support given our GT-3 mission. It is a privilege to work with all of you."

The letter was signed by GT-3 Astronauts Gus Grissom and John Young.
CAPE KENNEDY, FLA.--Why is SA-9 actually the ninth Saturn I?

It happened this way: Late in the development of the Saturn I boosters, the manufacturing site was shifted from the Marshall Space Flight Center, in Huntsville, Alabama, to the NASA Michoud facility, near New Orleans.

Of the last three Saturn I vehicles that were to be flown from Cape Kennedy -- a total of 10 were scheduled -- two were sent to Michoud for assembly and the third was readied at MSFC.

The two at Michoud were designated numerically as SA-8 and SA-10, while the one at Marshall was assigned the number SA-9.

SA-9 was readied for delivery to the Cape before SA-8, and was launched from Complex 37 last February 16. It was the eighth consecutive flight in the Saturn I program.

SA-10 will follow SA-8 and will be the tenth vehicle to be flown. Its flight, scheduled for later this year, will close out the program.

The first Saturn IB launch is planned for early next year.

##########
CAPE KENNEDY, FLA.--Ed Mathews, Chief of the NASA Kennedy Space Center's Apollo Saturn I/IB Test and Systems Engineering Office, is one of the men who represents the concentrated efforts that will be culminated in the flight of SA-8 next week.

Mathews, interviewed at the new KSC Headquarters Building, said "the function of our office is basically in the area of Program management."

"One of the most interesting facets of my job is the involvement of the overall program from the initial design of facilities to the completion of programmed launches," he explained.

"Our office works closely with the other KSC elements and contractors to see that all phases of the program are properly meshed."

Mathews mentioned that there is to be one more Saturn I launch, SA-10, after next week's flight. Immediately after the launch of SA-10 Pad B at Complex 37 will be modified for the larger Saturn IB vehicle. Modification of Complex 34 for this is already underway.

Facility checkout for the IB is scheduled to begin in mid-August, and the first launch is planned for early 1966, Mathews explained.

A native of Humphrey, Arkansas, a little town of about 600, 50 miles south-east of Little Rock, Mathews graduated from George Washington University in Washington in 1957 with a degree in civil engineering.
After being commissioned a second lieutenant in the Air Force he worked on the development and test of the Gatling Gun at Eglin AFB, Florida. The gun is now widely used in F-104 and F-105 jet fighters.

Mathews separated from active duty in July 1954 and traveled to California and North American Aviation. In 1955 he returned to Eglin and Civil Service to continue work on the Gatling Gun as Chief of the Armament Development Lab gun section for the Air Force Armament Center.

He joined Dr. Debus' Missile Firing Lab team in June 1958 as Pershing Project Engineer and later served as Centaur Project Engineer, and as Chief of the Light and Medium Vehicles Office, which included the Centaur and Agena programs.

When these functions were transferred to the Lewis Research Center in 1953, Mathews was assigned to the Saturn I/IB project, then located in the Heavy Vehicles System office, headed by Rocco A. Petrone.

Mathews lives on Merritt Island with his wife, Susie, and their three boys, Bruce, 10, Brian, 6, and Mark, 9 months.

"We're really enjoying the country life on Merritt Island," Mathews said.

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CAPE KENNEDY, Fla. — Undoubtedly the hottest place in Florida is the launch pedestal at Complex 37 during the liftoff of a Saturn I rocket.

NASA's Kennedy Space Center engineers estimate temperatures from exhaust flames that lick back on the pedestal to be 2,500 degrees F.

But despite the fact that such flames beat down for a full eight to 10 seconds -- the time it takes the Saturn to clear its umbilical tower -- there is virtually no appreciable damage to the pedestal or pad apron.

This is principally due to the heat reflecting abilities of a 180-ton metal monster that looks somewhat like the first rise in a roller coaster rig.

It is called a flame deflector, and as its name implies, it funnels out the Saturn's fires in two directions. The yellow deflector is about 25 feet tall and is positioned just under the bird on the pedestal about 4 weeks prior to launch.

At liftoff, the Saturn shoots flames down onto the deflector and out the sides of the pad for 200 to 300 feet or more.

The deflector itself sustains very little heat damage. Made of reinforced steel, its surface is coated with a four-inch layer of heat resistant, ablative type material similar to that used by spacecraft that plunges through the earth's surface in fiery reentries.

It is manufactured by the Denning Concretes Company of Santa Fe Springs, California.

"We've found this surface to be highly effective," said John Potter, of the Kennedy Space Center's Launch Support Equipment Engineering Division.
We've used this material on several of the past Saturn launches, and each time it melts down only about 1/16th of an inch. Before we used it, the deflector's steel surface was partially melted during each launch, causing a rippling effect in the steel. We were also getting a partial buckling of the support members on the deflector, but since using this heat resistant material this has stopped," Potter said.

The same deflector has been used for three launches, SA-6, 7 and 9, and the same type deflector will be used for Saturn IB flights, which are scheduled to begin in early 1966.

KSC engineers are interested in how well this material stands up, for deflector planning purposes at Saturn V launch complex 39.

At Launch complex 37, the curved steel plate is hauled into place by a heavy truck. It has four hydraulic cylinders to jack it up and eight wheels on four sets of trucks.
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Public Information Office
Cocoa Beach, Florida
783-7781

FOR RELEASE: IMMEDIATE
June 15, 1965

KSC-117-65

MERRITT ISLAND, FLA.—The NASA Kennedy Space Center's Education and Services Office is giving space news-hungry people answers to -- What is a satellite? What does it do? How does it get into orbit?

These and other space-related questions are answered by Assistant Education Officer Harold E. Mehrens. Mehrens, assisted by two spacemobiles and a highly specialized team of consultants and lecturers, get the space message to the public.

In the past year alone, this group has logged some 80,000 miles in their educational trek.

KSC Spacemobiles, or classrooms on wheels, are taking the NASA space story to schools and other educational institutions in such areas as Florida, Georgia, Puerto Rico, and the Virgin Islands. The KSC Spacemobiles are 2 of 30 units operated by NASA centers throughout the United States and foreign countries.

What is a Spacemobile?

This vehicular "tutor" is a specially designed panel truck carrying equipment and materials for use in space science lectures and demonstrations.

Spacemobile lecturers not only explain the scientific aspects of space activity, but also give some insights into the social, economic, and educational implications of man's peaceful exploration of space. The intent of this program is to demonstrate that space exploration has a profound effect upon all mankind and especially upon those nations having active space programs.

-more-
These space oriented professional lecturers inform educators, students and the general public on space-age developments and assist schools in building space-age understanding into their programs.

Subjects presented cover everything from the history of rocketry to rocket technology and satellite orbiting -- from NASA's launch vehicles, and communications, meteorology, and observatory satellites -- to unmanned and manned exploration of the moon and planets.

Using motion pictures, photographs, and other visual aids, Kennedy Space Center lecturers discuss basic scientific progress, and illustrate their theme with authentic scale models of rockets and spacecraft. As new inroads are made in space, new models and equipment are added to update Spacemobile exhibits.

The KSC Education Office designs space science materials strictly for educational purposes. "We aim at all school levels," Mehrens said.

During the past month, Mehrens and company has presented the space story to over 15, children and adults.

Virtually every educational institution in Florida and Georgia has been visited by the Spacemobile. An example of the Spacemobile's flexibility and versatility are trips to adult educational classes, Rotary, Lions, and Kiwanis Clubs as well as students at the secondary and college levels. Mehrens says that the adult groups request the same information as the students in their quest for space knowledge.

There is even a space science workshop for teachers. These three to five day space educational courses acquaint teachers at all school levels with what NASA is accomplishing. The teachers pass on this information to students.

Before the year is out, Mehrens and his prolific group will log thousands of additional miles bringing to the public the story of manned Gemini flights.
MERRITT ISLAND, Fla. -- Fifteen Brevard County youngsters, between the ages of 16 and 21, have been hired for the summer by Kennedy Space Center as part of NASA's nationwide Youth Opportunity Campaign.

Overall, some 330 summer employees will be employed at NASA Headquarters in Washington and at 11 field centers across the country.

Gene Balstad, KSC Equal Employment Opportunity Coordinator, said the 15 local youngsters would be placed in various office and clerical positions throughout the Center. They will work through the summer months.

These positions are over and above the normal summer employment and college internships programs in which NASA has participated during the past several years.

Dr. Robert C. Seamans, Associate NASA Administrator, said, "these youths must be used on meaningful and worthwhile tasks. This will not only be beneficial to NASA and the Government, but should increase their interest in the space program and ultimately lead to full-time employment within NASA or the aerospace community."

The Youth Opportunity Campaign was announced by President Lyndon Johnson on May 23. He called upon all government agencies as well as private employers to cooperate in providing summer employment opportunities for the two million young Americans leaving schools this month.

It is estimated that half the unemployment in the U.S. this month is in the 16-21 year old group. The Youth Opportunity Campaign is an attempt to improve this situation.

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MERRITT ISLAND, FLA.--The 50,000th visitor drove through NASA's Spaceport on Merritt Island Sunday. He was Howard Niehaus, a mechanical engineer with the Kaiser Aluminum and Chemical Corp., Ravenswood, West Virginia, was accompanied by his wife and three sons, Brandt, David and Michael.

Since the popular tour was opened to the public last January 3, an average of nearly 2,000 tourists a week have driven through the Kennedy Space Center to view closeup the fantastic facilities NASA will use to send astronauts to the moon later this decade.

The visitors have come from practically every state in the Union and from dozens of foreign countries -- including Yugoslavia, Finland, Poland, Brazil, Japan, India, New Zealand and several African nations.

The Spaceport tour is open on Sunday and holiday afternoons from 1 to 4 P.M.

The route takes tourists past the 525-foot-tall Vehicle Assembly Building in which the new Saturn V moon rockets will be readied for flight.

Visitors may also see the towering mobile launchers and the gigantic crawler-transports that will carry the rockets from Merritt Island to the launch pads, three miles to the east.

Other sites of interest include the Kennedy Space Center's new Headquarters Building and the Human Spacecraft Operations Building where America's astronauts are quartered during their flight training.

In addition to the 50,000-plus who have taken advantage of the free Sunday tours, thousands more have stopped at the Center's Information Trailer, set up at the main entrance to the Spaceport, off US-1.
At the trailer hostesses pass out Spaceport literature and explain KSC space programs and plans for the future.

Questions most frequently asked by tourists are: How long does the Sunday tour last? (One hour). Can we take pictures during the tour? (Yes). Can we take the Cape Kennedy tour at the same time? (No).

While the Sunday Spaceport tour continues to increase in popularity, NASA is pursuing plans to build a $12 million Visitor Information Center on Merritt Island which will be opened to the public sometime next year.

The National Park Service, in a recent study, has estimated three million tourists will visit the Spaceport and its Information Center annually by 1970.

Meanwhile, thousands of motorists from all over the world are driving through the Kennedy Space Center each Sunday, seeing America's Moonport in the making.
MERRITT ISLAND, FLA.—Two veteran Kennedy Space Center employees, both with the Procurement Division, are retiring this month.

They are Daniel P. Van Kammen, of 105 East Suwannee Lane, Cocoa Beach, who has more than 35 years in Civil Service, and Emily K. Watts, of 222 Antigua Drive, Cocoa Beach, who has 20 years of service.

Van Kammen, a KSC Contract Specialist, was a Chief Warrant Officer in the Navy for 20 years. He later worked for 11 years with the U.S. Department of the Navy, Bureau of Yards and Docks, in Port Hueneme, California, before joining NASA in February 1962.

He plans to return to California upon his retirement.

Emily Watts spent five years with the Navy's Bureau of Supply and Accounts in Washington, and then put in 11 years with the Navy's Purchasing Department before transferring to the Kennedy Space Center in 1961.

She plans to travel extensively following her retirement.

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MERRITT ISLAND, FLA.--Two state schools have recently been awarded $100,000 NASA grants. The University of Miami will use its money to investigate space-related biology, including molecular evolution and relevant aspects of extraterrestrial environment.

Florida State University's grant is for a study of polarization of the decameter-wave radiation from Jupiter, with particular emphasis on the correlation between Jupiter and solar activity.
MERRITT ISLAND, Fla.---NASA support contractors at the Kennedy Space Center expect to increase their employment from 3,093 presently to more than 4,000 by the end of Calendar year 1965.

These contractors perform a variety of services ranging from administrative, management and technical support to communications associated with launch operations.

They include Trans World Airlines, Radio Corporation of America, Ling-Temco-Vought, Bendix, Dow Chemical, Federal Electric Corporation and Bechtel.

TWA provides base support on the Merritt Island Spaceport and has the largest number of employees of any one contractor. TWA employs 1,489 personnel and expects to increase the number of 1,857 by year's end. In addition to general maintenance and utilities operations, TWA furnishes janitorial, fire protection and prevention, security and medical services.

RCA currently has 203 employees and expects to increase to 290. RCA operates and maintains technical communications including telephone equipment in hazardous or remote areas determined to be operationally critical. Also, RCA operates the cable distribution system and all other communication equipment except conventional telephones provided by Southern Bell Telephone Company.

Ling-Temco-Vought employs 469 and expects to increase to 680. The company provides automatic data processing, technical information, photographic and field printing services.

Bendix will show the largest personnel increase. The firm employs 470 and expects to increase to 820. The company performs launch support services, engineering support, materials cleaning and testing, ordnance storage and checkout, and propellant services.

Federal Electric employs 136 and expects to increase to 240. The firm provides prototype instrumentation tracking support services.

Dow Chemical, which has 172 personnel now, expects to grow to 210. The contractor provides facilities engineering support.

Bechtel's strength may reach 143 by the end of 1965. The firm provides special maintenance and modifications to KSC operational facilities.

Total mission contractor employment may reach 4,240 by December 31.

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FOR RELEASE: IMMEDIATE
July 21, 1965

KSC-151-65

KENNEDY SPACE CENTER, FLA.--Harold G. Collins, who has a background of more than 35 years in management, engineering and supervision, has been appointed Chief of the Kennedy Space Center's Procurement Branch.

This branch is responsible for providing all fixed-price, time and material, and labor-hour procurement placement services for the Center, for other NASA activities in the area, and for other authorized government contractors.

The Procurement Branch has a staff of 45 specialists.

Collins has been a member of NASA's management team for the past five years. Prior to his new appointment, he served as Chief of the Manned Spacecraft Center's Procurement and Contracts Office at Cape Kennedy. While in this office he was cited for his efforts pertaining to Gemini contracts.

Collins is a native of Merchantville, New Jersey, and received advanced education from the University of Pennsylvania, where he majored in Business Administration and Industrial Psychology. He has also taken advanced courses in contract administration at various education institutions.

Formerly with the Philadelphia Air Procurement District, Collins had overall control of Air Force contracts for the Atlas Weapons System and the Ballistic Missile Early Warning System.

He has also held various management positions with RCA, the International Resistance Corporation, and the Burroughs Corporation.

Collins has received many awards for service, both from the Air Force and NASA. Among these were the Mercury Achievement Award in 1962 and the Gemini-Apollo Program Award in 1964.

Collins and his wife, Mary, live at 981 Poinsettia Street, Cocoa.

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KSC - 152-65

KENNEDY SPACE CENTER, FLA. -- One of the largest support operations ever attempted at Cape Kennedy was scheduled to be underway this morning (July 22). It involves the simultaneous simulated countdown and launch of both an Atlas-Agena vehicle at Complex 14, and the Gemini-5 vehicle at Complex 19. Called a Simultaneous Launch Demonstration (SLD), the unique project calls for the closely coordinated efforts of NASA, Air Force and contractor personnel.

The primary test objective is to verify the operational feasibility of such a simultaneous countdown and launch for the Gemini 6 mission for later this year.

On Gemini 6, an actual Agena target vehicle will be launched about 95 minutes prior to the liftoff of the Gemini. Astronauts will then practice rendezvous maneuvers in space.

The Agena launch is timed so the vehicle will be passing back over the Cape area at the completion of its first revolution around the Earth just as the Gemini is ready to be launched.

The overall effort on today's SLD is being coordinated by the Gemini Launch Operations Committee. Launch Director G. Merritt Preston of the Kennedy Space Center is in charge of the operation.

According to Bob Buckley of KSC, Chairman of the Gemini Rendezvous Subcommittee, it will be the first time the Eastern Test Range has been called upon to support two countdowns at the same time. This will require a double effort on the part of all personnel involved, both at the Cape and at tracking stations on the Air Force Eastern Test Range.
Air Force Lt. Col. John G. Albert, Gemini Launch Vehicle Director of 6555th Aerospace Test Wing, and KSC's Chuck Gay, Gemini 5 spacecraft test conductor, will be coordinators for Complex 19 activities. Major Dewey Allen of the 6555th, Launch Director for the Atlas-Agena, will be the coordinator for Complex 14 activities.

The simultaneous countdown is being run in conjunction with a scheduled "wet mock" test at Launch Complex 19. Gemini 5 pilots Gordon Cooper and Charles Conrad will enter their spacecraft during this test.

The actual Gemini 5 flight is scheduled for August 19........
KSC - 158-65

KENNEDY SPACE CENTER--Several hundred local and state dignitaries; and
U. S. Senat or Joseph Tydings of Maryland, are expected to witness the
final Saturn I launch Friday as guest of the Kennedy Space Center.

Senator Tydings is a member of the Senate Committee on Aeronautical and
Space Sciences.

Among the groups invited to see the flight are: officials of the Florida
State Chamber of Commerce; Brevard County ministers; members of the Florida
Nuclear and Space Commission; and Indian River City officials.

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KSC -- 159 --

KENNEDY SPACE CENTER, FLORIDA: The Kennedy Space Center Employees were here when the first American satellite, Explorer I, went into orbit January 31, 1958. Fewer still were on the personnel roster when the first Redstone was fired on August 20, 1959, and only a bare handful were working at the Cape when the first missiles were launched some 15 years ago.

Jim Finn, Chief of KSC's Ground Support Equipment Planning and Activation Unit, not only remembers those first flights, he helped set up one of the earliest tracking stations.

Finn went to work for the old Air Force Joint Long Range Proving Ground (today the Eastern Test Range) on March 27, 1951. He was sent to Jupiter, Florida, a few miles north of West Palm Beach, to help open a tracking site there.

"I'll tell you how far this business has progressed, "Finn said recently, from his modern new office on the third floor of the KSC Headquarters Building. "Look around at the facilities on the Spaceport--the latest in everything from electronics to launch equipment. At Jupiter in 1950, if we didn't have the right piece of gear to do a job, we found something. For instance, we used old soft drink bottles on telephone poles as insulators."

Jim transferred to Cape Canaveral in 1952, where he had charge of sequencing firing systems for such early day missiles as the gnark, Bomarc, Matador, and Larc.
He joined Dr. Kurt H. Debus' original Missile Firing Laboratory team in May 1954. "We had about 39 people in the Lab then," Finn recalls, "I worked with electrical systems in the old network section. We used to test and checkout the Redstones in an old quonset hut."

"At that time we'd hook up the electrical support equipment in the hut, checkout the vehicle, then load up the ESE and take it to the pad for installation and launch. Permanent cabling systems didn't exist then."

"When the launch was over," Finn said, "We had to dismantle all the electrical equipment and store it because we shared the blockhouse with the people who were launching Snarks, Matadors, and other birds."

Over the past 14 and half years Jim Finn has seen many changes, "the first time I went through the Cape's south gate, it seemed as though I'd driven for a half an hour before I could see anything, we've sure come a long way from the first Redstones."

"I would like to say this is about the finest group of people I've ever worked with. I think the best thing you can say about Dr. Debus' team is to look back and see how many fellows have left over the years, there have been very few."

Of all the hundreds of launches Jim has seen and worked on over the years, he doesn't single out any one in particular.

Finn is forever running into old working buddies at the Kennedy Space Center these days. Boeing and North American employees who were here a decade or so ago on the Bomarc and Navaho programs that had long ago packed up and phased out, are back again on future Saturn projects. "It's like old home week," Jim reminisces.
Jim never had any real doubts about the future of rocketry, even in the earliest days of missile launching. "I can recall seeing films in the early days with a lot of way-out concepts," Jim said, "today a lot of those concepts have come into being."

Jim Finn is responsible for the electrical systems that are supplied to Launch Complex 34, 37, and 39. His unit documents all electrical inputs into the complex for Launch Vehicle Operations. In addition, documentation is made of over 4000 racks of equipment on LC 39 alone.

Jim built his 10-room house at 128 Pine Lane, Titusville, by himself, block by block. It took five years, and he moved in 1956. "Everyone kidded me about moving to Titusville then, they said there was nothing there. Now all the activity has moved up my way, and a lot of the fellows are moving into houses in the neighborhood."

Jim's 18-year-old son, Michael, was one of nine students in this year's graduating class who went through the entire 12 grades of school in Titusville. He will matriculate this fall at Notre Dame. Jim and his wife, Ann, also have an 11-year-old daughter, Michelle, more commonly known as "Peanuts" who is attending St. Teresa Catholic School.
MERRITT ISLAND, Fla.--Visitors who meet Terry Greenfield of the Kennedy Space Center are invariably surprised to learn that he is a veteran of rocketry with nearly 10 years experience.

Greenfield, who looks like he stepped off a college campus a couple of years ago, is Chief of KSC's Electrical Systems Branch. Like a number of Center employees in key positions, he literally grew up with the space age.

A native of Coatesville, Pennsylvania, and an electrical engineering graduate of Penn State, class of '53, he originally joined Dr. Kurt H. Debus' Missile Firing Laboratory team in January 1956, while he was in the Army.

"I first came to the Cape about a month later," he recalls, "when we were activating Pad 5-6 for the Redstone, installing panels and cabling."

He later served as blockhouse engineer on the Jupiter program and when his Army tour of duty was up, just changed suits and continued work.

In 1959 he was assigned to the Pershing project, where he was responsible for airborne electrical systems and electrical support equipment. He then transferred to the Mercury-Redstone program, and eventually became part of KSC's Saturn team.

Today his branch is responsible for all Saturn airborne electrical systems, such as the sequencing and central power systems--the arteries that lead to the Saturn's vital organs.

"This includes the cabling that goes to and from the so-called black boxes that control flight operations," Greenfield said.

"One of our biggest jobs today is to manage our group of stage contractors who inherently have their own methods of operation--like we do on the Saturn--and melt all their individual abilities into a smooth functioning team that is truly responsive to our requirements," Greenfield said.

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"We also stress importance of a close working relationship with the Marshall Space Flight Center design people. We try to give them our thoughts from the operational standpoint, so that when the electrical equipment is designed, we know it will reflect the checkout requirements when it becomes hardware."

Greenfield's people are now gearing up for the coming shift to Complex 39 and Saturn V operations at the Spaceport. His Branch will move into the Launch Control Center when construction work there is completed.

"Our job will be systems integration. We must see that stage-to-stage, stage-to-ground support equipment and stage-to-spacecraft electrical systems are all properly interfaced. Each stage contractor is only responsible for one part of the operation. We must see that all these parts fit together."

Terry lives at 1200 Alsup Drive in Rockledge with is wife, Jean and their two sons, Terry, 6 1/2, and Kyle, 2.

Jean served as Dr. Debus' secretary from 1957 to 1959, and later was Dr. Hans Gruene's secretary. Dr. Debus is KSC Director, and Dr. Gruene is Assistant Director for Launch Vehicle Operations.

The veteran of perhaps 100 or more launches, from the early Redstones through Saturn SA-8, Greenfield recalls Alan Shepard's flight in Mercury-Redstone 3 most vividly.

"I don't think there's any competition as far as career interest goes," Terry says of the rocketry field. "The work itself is extremely challenging. We've never at a loss for something to do. My action-item folder stays about a foot high."

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KSD - 160-65

KENNEDY SPACE CENTER, FLORIDA--The Kennedy Space Center is dropping use of the term "Merritt Island Launch Area," and the acronym of "MILA."

The official title of the Spaceport is the John F. Kennedy Space Center, NASA.

Geographical location and post office address of the Center is "Kennedy Space Center, Florida." The abbreviation for the Center is "KSC."
KENNEDY SPACE CENTER--A special cachet will adorn envelopes mailed from the Kennedy Space Center post office on SA-10 launch day, scheduled for Friday. Those who wish may obtain such a memento by sending a stamped, self-addressed envelope to the Chief, Mail and Distribution Section, ASO-21, John F. Kennedy Space Center, NASA, Kennedy Space Center, Florida. When addressing the envelopes, room should be left in the lower left hand corner for the cachet, and a piece of paper or filler should be stuffed in the envelope.

A similar cachet will be used to commemorate the Gemini-5 launch.
WASHINGTON, D.C. -- Personnel of the Manned Spacecraft Center, Houston, Texas, will be augmented to meet the increasing tempo of Gemini and Apollo manned space flight operations.

In the first of the actions, approximately 200 personnel will be transferred from the Marshall Space Flight Center, Huntsville, Alabama, to Manned Spacecraft Center over the next 10 months.

Dr. George E. Mueller, Assistant Administrator for Manned Space Flight said, completion of the first phase of the Saturn program with the successful launch of SA-10 had made it possible for the Marshall Space Flight Center to make personnel available for Saturn-Apollo operational activities at the Manned Spacecraft Center.

The total number of personnel to be provided from other NASA activities has not yet been determined.
KSC 168-65

KENNEDY SPACE CENTER, FLORIDA -- The Procurement Division of the Kennedy Space Center awarded more than $17.4 million in contracts to small business concerns during Fiscal Year 1965, which ended June 30.

This was 12.4 percent of the total $137 million in contracts -- for everything from electronic equipment to launch support items -- awarded by the Center.

Small business concerns are generally classified as ones with less than 500 employees.

"We make every effort to comply with the spirit of the Small Business Act, to insure these firms receive a just share of our procurement dollars," said Tom Davis, Small Business and Industrial advisor for the Center.

A large percentage of awards were made to firms in Florida, and, where possible, to ones in the local area.

"If we have local small businesses who are reliable and have responded in the past, we'll try to declare a "set-aside" for them on contracts we think they can fill," Davis said. "Or, if the contract is too big for them, we'll assist them in trying to get a part of it through a sub-contract."

The Canaveral District of the Corps of Engineers supervises much of the Center's major construction activities, and during the past year the Corps reports $24.1 million in construction contracts were awarded to small business firms.

Additionally, KSC's Procurement Division awarded $11.3 million in fiscal year 1965 for small construction work, and of this figure, $1.4 million went to small business.
The John F. Kennedy Space Center, NASA, has awarded a $57,612 contract to Consolidated Electrodynamics Corp., 501 Park Avenue, N., Winter Park, Florida, for a bi-directional operation tape recording unit for use in recording data during Saturn IB launches.

Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
The John F. Kennedy Space Center, NASA, has awarded a $25,542 contract to the Engineered Electronics Co., 1441 East Chestnut Avenue, Santa Ana, California, for a digital simulation system used for rapid checkout of computer digital logic designs and logic module cards.

Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
The John F. Kennedy Space Center, NASA, has awarded a $756,247 contract to the Endevco Corp., 801 South Arroyo Parkway, Pasadena, California, for a vibration detection and signal conditioning system.

The contract is for five complete systems, three for installation in the Spaceport's Mobile Launchers, and two for installation in the Launch Pad Terminal Connection Rooms.

The systems installed in the Mobile Launchers will detect vibration signals and transmit them to the Launch Pad Terminal Connection Room where vibration measurements are recorded for the Ground Environmental Measurement Program.

Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
The John F. Kennedy Space Center, NASA, has awarded a $38,175.50 contract to the Brown Engineering Co., Inc., 8810 Astronaut Blvd., Cape Canaveral, Florida, for the design, fabrication, installation and checkout of an operational intercommunications system.

The system will be installed at the fluid test facility in the Kennedy Space Center's Industrial Area.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
The John F. Kennedy Space Center, NASA, has awarded three major contracts, totaling nearly $1 million to firms in Pennsylvania, Connecticut and Ohio.

The contracts are:

-- $712,430 to the small business firm of Monitor Systems, Inc., Washington, Pennsylvania, for a Digital Telemetry System (Data Core).

Such systems are required for use in the Center's Information Systems Facility for processing telemetry data from Saturn IB, Saturn V and Apollo space vehicles.

-- $179,100 to the Filmline Corp., Milford, Connecticut, to procure, manufacture, assemble, test and deliver equipment for the photographic film processing system for processing black and white and Eastman Kodak color motion picture 16 mm and 35 mm films.

-- $75,240 to Brush Instruments, a division of the Clevite Corp., Cleveland, Ohio for recorders to be used on Saturn IB launches.

The recorders are required by the Center's flight control systems section for use in recording guidance and control functions during tests and launch countdowns on Saturn IB vehicles at Launch Complex 34.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
Nearly 100 Kennedy Space Center employees are cleaning out their desks and packing up their gear, getting ready to leave their jobs.

They are the summer students who have been performing a wide variety of significant duties at the Center during the past three months.

They represent schools from the University of Florida to Notre Dame, and have been working in offices ranging from Launch Vehicle Operations to Financial Management.

All of them have found their work at KSC an "education in itself," and they will take back a summer full of experiences when they reenter their colleges and universities in the next few days and weeks.

Here's a random sampling of the students and their comments on working at the Kennedy Space Center:

"Very definitely, I've learned a lot here," says Bruce Isaacs, a senior electrical engineering major at Rensselaer Polytechnic Institute in Troy, New York.
Isaacs has been working the test and development section of Information Systems, running tests on various equipment.

"It's really been a great experience. Aside from learning about instrumentation, I've seen several launches," Isaacs said. "I hadn't thought of the space field for permanent employment, but I'm considering it now."

James Brickey is a graphic design major and a senior at the Maryland Institute College of Art. He has been working on chart preparations this summer with the Center's Launch Vehicle Operations.

"Most of the things I've learned this summer have to do with office procedures. I've found out how a lot of things work administratively, and I expect this will benefit me greatly in my career."

An accounting major at Notre Dame, William Schaffer has been performing contract evaluation and management data work with the Center's Financial Management Office this summer.

"It's been my first time in a real office atmosphere and I've gotten an across the board look at accounting here. Watching the day to day management of operations here has helped me greatly. You can't get anything like that in a school room setting."

Cameron Hood is an astronautical engineering major at the University of Florida and for the past few months has been doing documentation work with KSC's Plans, Programs and Resources.

"The thing I've learned most and that I think will prove beneficial to me later, is the management side of engineering. Where I've been working all of the Managers have engineering backgrounds and they put them to good use."
Jerome Cardell has been a summer employee at the Center although he has completed his collegiate studies. He now teaches advanced math at Bethune Cokeman College in Daytona Beach.

This summer he has been working in data systems at the Center, studying tracking facilities for the Saturn V moon rockets.

"I'm enjoying the experience totally. I've learned more here in three months than I did over a much longer period in school. In a sense I will be able to adapt some statistical problems drawn from my work here for use in teaching my students, and this I feel will be most helpful to them."

"My work here has been involved in coordinating efforts with other offices and it's been good experience," says Gerald Crump, a business management major at Florida State University.

He has been handling supply orders this summer for the Financial Management Office.

Mark Greenberg, is a graduate student studying math at New York University. His work at the Center dealt with a variety of duties on the reactivation of Launch Complex 34 for the Saturn IB program.

"I've learned a lot about the practical application of engineering. This is a side of it you can only get through experience in the field," Greenberg points out.

Finally, Earl Clarkson, an industrial engineering major at the University of Florida, has been employed with KSC's Facilities Engineering, where his work has been concerned with planning "inner space" for the Center's thousands of employees.
"My job here has been directly applicable to my field -- industrial engineering," he said. "This has given me a good background for my career, and I've enjoyed working with the people here immensely."

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Key Kennedy Space Center people involved in work at the recently completed Launch Complex 39 Pad A are, left to right, James Kanipe, Deputy Chief, Saturn/Apollo Launch Facility Branch; Harry J. May, Launch Complex 39 project engineer; and James Ellis, project manager. The Center is expected to gain beneficial occupancy of Pad A within the next few days. Construction on the $24.5 million project began in November 1963. It is the first of two pads at the Center to be completed, and will be used by NASA for launches of the Saturn V/Apollo lunar vehicles.
A contract amounting to $152,836.90 has been awarded to a Texas firm by NASA's John F. Kennedy Space Center.

The pact, a small business award, went to Space Corp., Box 5175, Dallas, Texas. The firm will fabricate, assemble, test, package and deliver miscellaneous handling and service equipment for the Saturn V program. The equipment includes tools, work platforms and ladder assemblies required for maintaining and servicing equipment in the Vehicle Assembly Building at Launch Complex 39.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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KSC-183-65

KENNEDY SPACE CENTER---NASA's John F. Kennedy Space Center has awarded a $289,900 contract for modification of the pneumatic distribution system at Pad B of Launch Complex 37.

The contract went to American Machine & Foundry Co., Field Operations & Engineering Div., 924 Anacapa St., Santa Barbara, Calif. The firm will be responsible for procurement of materials, fabrication of pipe and tubing, and installation and hydrostatic testing of all systems. Subcontracts for systems cleaning and radiographic inspection were let to Dow Industrial Service and Law Engineering Co., both of Cape Canaveral, Fla.

The work will be part of the overall modifications to Launch Complex 37 for the upcoming Saturn IB program. The complex was used extensively in the recently concluded Saturn I program.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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NASA's John F. Kennedy Space Center has awarded a $46,784 contract to the Paul Smith Construction Co., Tampa, Florida, and The E.C. Ernest Co., Inc., Atlanta, Georgia.

The two firms, forming a joint venture and trading under the name of Smith-Ernest, will erect the fourth set of Mobile Launcher mount mechanisms at Pad A of Launch Complex 39. Pad A is one of two launch sites under construction for the Apollo-Saturn V lunar vehicle.

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NASA's John F. Kennedy Space Center has awarded contracts totaling more than $177,000 to firms in Florida, Pennsylvania and New Jersey.

Symetrics Engineering Corp., Box 2188, Satellite Beach, Fla., received a $110,053 pact for a universal inter-rack cabling system which will be used for signal and control distribution in and between critical ground support equipments employed by the Center's Central Instrumentation Facility.

A $32,151.13 pact has been awarded to American Electronic Laboratories, Inc., Box 552, Lansdale, Penna., for VHF multi-couplers to be installed in the Central Instrumentation Facility to receive telemetry data from Apollo-Saturn space vehicles.

Quindar Electronics, Inc., 60 Fadem Rd., Springfield, N.J., received a $35,042 contract for quantities of signaling transmitter and receiver equipment for a general remote control system used during launch operations.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
Contracts totaling more than $139,000 have been awarded to firms in New York, Alabama and Connecticut by NASA's John F. Kennedy Space Center.

Applied Research, Inc., 76 South Bayles Ave., Port Washington, New York, has received a $37,120 contract for a quantity of multiplier chains to be used by the RF Systems Branch as components in construction of new electronic receiving equipment at the Center's MANDY Tracking Facility.

Brown Engineering Co., 300 Sparkman Dr., Huntsville, Ala., received a $31,496.31 contract for closed circuit television equipment to be installed at the Center's launch facilities at Cape Kennedy.

A $70,405 pact was awarded to Data-Control Systems, Inc., East Liberty St., Danbury, Conn., for analog data transmitter and receiver systems components. The equipment will be used for transmission of telemetry data to the Central Instrumentation Facility during checkout and launch of Saturn IB vehicles.

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Kennedy Space Center Director, Dr. Kurt H. Debus, and Major General Vincent G. Huston, Commander of the Air Force Eastern Test Range, have been named co-chairman for the 1966 Brevard County Savings Bond Drive.

The campaign will run from May 1 through July 4, 1966.

Dr. Debus has served as Brevard County Chairman for the bond drive for the past three years.

In a letter to General Huston, acknowledging his acceptance as co-chairman for the coming year, Dr. Debus said, "I am confident we will be presenting to the citizens of Brevard County a program that will be of mutual benefit to the individual participants, as well as our respective missile and space programs."
Brevard County's 1965 United Fund Drive will get underway October 1, and the Kennedy Space Center's goal this year will be $25,000.

Last year the NASA goal was $18,000 and a total of $23,000 was raised.

KSC Chairman John Donovan of protocol said he was sure with enthusiastic support the Center would have little trouble reaching $25,000 during the month-long campaign.

"We've got the full backing of top management on this," Donovan said. "Dr. Debus is 100 percent behind the drive, and he has urged all employees to participate."

The overall county goal for 1965 is $458,000, a new record high.

Donovan said posters would be displayed at various areas of the Center to keep everyone informed of progress in reaching the goal.

"All you have to do is look at the list of organizations the United Fund supports to see how worthy such a campaign is," Donovan pointed out.

The list includes the Arthritis Foundation, Boy and Girl Scouts, the Brevard Association for Retarded Children, Brevard County Guidance Center, Central Brevard Crippled Children's Clinic, Child Adoption Services and Community Services.
Also, the Damon Runyon Fund for Cancer Research, the Family Service Bureau, Home Nursing Services, Mental Health Association, National Travelers Aid Association, North Brevard Rehabilitation Center, North and South Chapters of the American Red Cross, the Salvation Army, South Brevard Charities, United Medical Research of Florida, the USO and the YMCA.

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The John F. Kennedy Space Center, NASA, has awarded contracts totaling $185,409.40 to Brush Instruments, Division of Clevite Corp., 37th and Perkins Ave., Cleveland, Ohio.

The firm will supply electronic equipment consisting of twelve 8-channel recording oscillographs, six solid state analog recorder systems and twelve 8-channel preamplifiers.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.

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The John F. Kennedy Space Center, NASA, has awarded a $36,610 contract to Orlando Welding & Piping Contractors, Inc., Box 5068, Orlando, Fla., for an eight-inch portable return line and accessories to be used with a mobile cleaning system at Launch Complex 39.

The Kennedy Space Center operates the nation's Spaceport on Merritt Island, and conducts major space launches from Cape Kennedy.
Kennedy Space Center employee Larry J. Hand, Jr., left, of 265 E. Laurin Ct., Merritt Island, receives a Sustained Superior Performance Award from A. H. Bagnulo, director of KSC's Engineering and Development Div.

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Hundreds of Kennedy Space Center employees are receiving flu shots this week aimed at cutting absenteeism due to illness. Here Deputy Assistant Center Director for Administration, C. C. Parker, receives his vaccine from TWA nurses Rosalind Martin, left, and Mary Balachia. Dr. Jack Hatfield supervises.
KENNEDY SPACE CENTER -- Down the hall from the astronaut quarters, on the third floor of the Manned Spacecraft Operations Building at the Kennedy Space Center, is a group of rooms kept surgically clean.

They have to be, for these rooms serve as the new medical facility where Gemini astronauts are given their all-important pre-flight physicals.

Gemini 5 pilots Gordon Cooper and Pete Conrad were the first spacemen to use the new facilities.

Prior to their flight, physical exams were given in the Air Force Bio-Astronautics Laboratory at Cape Kennedy. But officials found the astronauts had too tight a schedule during the last few days of their training here, and they had to cut down on time.

By locating a medical setup in the same building as the astronauts' quarters, officials feel they have cut considerable time off the schedule, allowing the space pilots to concentrate more fully on operational phases of their mission.

There are generally three pre-flight physicals given. The first of these is at about T-10 days prior to the liftoff date. The second is two days prior to liftoff and the third physical, a short one, is given on the morning of the flight.
When the first two, more extensive exams were given at the Cape, it took nearly a full day for each one. Now, with the medical facilities in the MSO Building, each exam has been cut to about half a day.

Teams of medical specialists fly in to administer the physicals when the astronauts are in training at the Kennedy Space Center. Both the prime and backup crews are given all examinations.

Included in the medical complex are an X-ray machine, for chest and abdomen X-rays; a neurology room; and eyes, ears, nose and throat check area; a tilt-table room for blood pressure tests; a food processing area; a reception room and a lounge.

At present the more exhaustive post-flight physicals are given at the Manned Space Flight Center in Houston, but the MSO Building facilities could be adapted to perform this task if necessary.

Medical Support Assistant Huey Crocker is in charge of the facility, and in addition to the teams of medical specialists who come here for each flight, NASA nurse Dee O'Hara usually precedes them to set up things.
MEDICAL Support assistant Huey Crocker adjusts X-ray machine at the new medical facility located in the Manned Spacecraft Operations Building at the Kennedy Space Center.
NURSE Dee O'Hara, who first served in the astronaut program during the earliest Project Mercury flights, comes to the Kennedy Space Center weeks before a scheduled Gemini flight to prepare the new medical facility. Here, she checks eye, ear, nose and throat equipment.
KENNEDY SPACE CENTER -- The upcoming Gemini 6 flight will be the most complex, demanding mission yet attempted in the U.S. manned space program, according to G. Merritt Preston, Deputy Kennedy Space Center Director for Launch Operations.

Preston will double as Deputy Mission Director for the Gemini 6 launch.

Briefly, the mission calls for an Agena target vehicle to be launched by an Atlas about an hour and a half before the Gemini.

The Gemini launch is planned to coincide with the Agena's first orbital pass over the Center. Once astronauts Wally Schirra and Tom Stafford are in orbit, they are to attempt rendezvous and docking maneuvers with the target vehicle.

Such a complicated and exacting flight plan requires the most stringent support ever afforded a mission.

"One of our biggest jobs is coordination," Preston says. "Essentially, we have about six major components that will be conducting simultaneous operations."

These include the Gemini spacecraft, the Agena target vehicle, the Gemini launch vehicle, the Atlas launch vehicle, the Mission Control Center in Houston, including the manned space flight network, and the Air Force Eastern Test Range.

"People in each of these components are working to a prescribed operations plan," Preston pointed out.
Because there are more systems and more organizations on this mission than any other in the past, it is reasonable there will be more problems arising. It's Preston's job to see that these are resolved.

In fact, a planning committee was formed a year ago with the expressed purpose of anticipating every contingency that might arise during such a mission, and mapping out solutions in advance.

So far, Preston feels, things have been fairly smooth. A dry run simulated dual countdown was held in conjunction with the recent Gemini 5 flight and only a few problems arose. These are being corrected.

Preston listed some of the unique requirements that will have to be met for Gemini 6:

--The launch radio guidance system must follow the Agena during its launch, and then it must be re-programmed to pick up the Gemini launch.

--Because of the dual launch—Gemini at Complex 19 and Agena at Complex 14—a reliable communications net has to connect the two blockhouses in addition to several other key points.

--Should a hold occur in the countdown on one launch vehicle, the other one would also have to be held. There is a launch window on the Gemini of 23 minutes if only the spacecraft propulsion system is used for rendezvous. If the Agena propulsion system is used while in orbit to effect a rendezvous the launch window is about two hours.
If for some reason the spacecraft cannot be launched to coincide with the Agena's first pass over the Cape, the next launch window will be 22\(\frac{1}{2}\) hours later.

Preston says all major elements here—the Air Force Eastern Test Range, the four launch vehicle and spacecraft prime contractors—Martin (Gemini launch vehicle), McDonnell (Gemini spacecraft), Convair (Atlas launch vehicle), and Lockheed (Agena)—have all been cooperating fully with Kennedy Space Center and Manned Spacecraft Center people.

KSC's Gemini Spacecraft Operations are directed by the Assistant Directorate for Spacecraft Operations. John Williams is the director, and Wiley Williams is the manager of Gemini operations.

Preston said the support from the Eastern Test Range has been particularly good considering this will be the first time they have run live simultaneous countdowns and launches.

On the day of the dual flights, Preston will take a command post in the Cape's Mission Control Center. He and all others in key positions such as the blockhouses, central control, etc., will be in direct contact via the communications network and will make necessary decisions on the spot.
KENNEDY SPACE CENTER -- This drawing of the crawler-transporter's section through the track shows support rollers and bearing housing. There are 11 support rollers for each of the eight tracks.

KSC-270-65
October 18, 1965

For Release: Monday's PMs
KENNEDY SPACE CENTER -- This is a cutaway drawing of the crawler-transporter bearing housing and original roller bearings.

KSC-270-65
October 18, 1965
For Release: Monday's PMs
KENNEDY SPACE CENTER -- This cutaway drawing of the crawler-transporter shows the bearing housing with the newly designed sleeve bearing, which replaces roller bearings in the original design.

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KSC-270-65
October 18, 1965

For Release: Monday's PMs
KENNEDY SPACE CENTER—Preparations are being made for further study of the flow of ocean currents and beach sediments in the area of Pad 39A at the Kennedy Space Center. The study entails tracing fluorescent particles over the ocean floor.

The University of Florida's Coastal Engineering Laboratory has been awarded a renewal contract by the AEC for $40,000. This follows an initial year-long pilot study in which test materials were developed and trial runs were made in the off-shore region. Under the contract renewal the University of Florida group will study intensively the water and simulated sediment movements at several ocean sites off-shore from the launching pad.

The purpose of the study is to determine the disposition of material in the event of a launching abort near the coastline. A secondary purpose is to provide information on beach erosion and its effect on launch facilities constructed near the shoreline.

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Dr. Per Bruun of the University of Florida heads the investigative team carrying out the study. He said the fluorescent particles are "seeded" on the ocean floor by a mechanical spreader. The beach is scanned by ultra-violet light under which the particles glow, and counts are made to determine how many particles have moved, and how far, within a given period of time. This process is similar to one being conducted by the Coastal Engineering Laboratory off Jupiter Island, Florida, where the migration of sand material is measured by use of fluorescent sand particles.

Dr. Bruun said the particles used locally are inert, harmless fragments of dyed crushed concrete block, which simulate nuclear or non-nuclear material. The operational study area extends from a 12,000 foot shoreline seaward 4,000 feet or to a 30 foot water depth.

Nuclear rocket stages may be launched at the Cape in the early 1970's. The AEC-NASA Rover Nuclear Rocket Program is now in its ground testing phase at the Nuclear Rocket Development Station, Nevada. No radioactive material is being used in the current study at Cape Kennedy.

The AEC has awarded contracts for similar studies in other coastal areas of the United States, including California.

The area involved in the Cape Kennedy study is marked by small buoys, but boats are not prohibited from using the area. Shrimp boats, however, are being asked to refrain from dragging large nets along the ocean bottom in the area, to avoid upsetting the seeded material.

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Teams of four men "count" the wash-up particles along the beach area involved about once each three weeks.

NASA and the Air Force Eastern Test Range are cooperating in the study. The Air Force is providing equipment and a trailer as space for use by the investigators.

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KENNEDY SPACE CENTER--The Spaceport will be open to the public for drive-through tours as usual this Saturday and Sunday (October 23 and 24).

However, Playalinda Beach and the area north of State Road 402, normally open to the public, will be closed as a precautionary measure from 4 p.m. Sunday until 6:30 on the morning of the Gemini 6 launch.

Security guards will man gates just south of SR 406 and Kennedy Parkway North (old A1A) and just east of SR's 406 and 402. Route 406 will continue to be open at all times.

Hours the Spaceport will be open this weekend are from 10 a.m. to 4 p.m. Saturday, and from 1 to 4 p.m. Sunday.
KENNEDY SPACE CENTER....The flight instrument unit for NASA's first Saturn IB launch arrived at Cape Kennedy last evening aboard the barge Palaemon.

The John F. Kennedy Space Center is conducting assembly and checkout of the Saturn IB scheduled for launch in the first quarter of 1966.

The instrument unit was shipped from NASA's Marshall Space Flight Center, Huntsville, Alabama. It was off-loaded at 9:30 last night at Hangar AF, Cape Kennedy, where it will remain about a week undergoing prelaunch checkout prior to being taken to Launch Complex 34 for mating to the launch vehicle.

The instrument unit controls first stage powered flight, first stage separation, 2nd stage powered flight, injection into earth orbit and earth-orbital coast stabilization. The unit includes the guidance and control, electrical, radio frequency, instrumentation, environmental control and emergency detection systems. It interfaces with the S-IVB forward interstage and the Apollo spacecraft.

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The Saturn IB, which introduces a more powerful liquid hydrogen-fueled 2nd stage, will orbit manned Apollo spacecraft beginning in 1967, in preparation for later lunar missions using the Saturn V launch vehicle. The Saturn IB can lift 35,300 pounds into earth orbit.
November 4, 1965

KENNEDY SPACE CENTER--A Saturn V, S-IVB interstage arrived at the Kennedy Space Center earlier this week. The interstage, a facilities checkout model, is the first piece of Saturn V hardware to arrive at the Vehicle Assembly Building for checkout of equipment there.

Initially, the interstage will be used to ensure the readiness and proper fit of equipment in the VAB low bay, where it will be mated to an S-IVB facilities stage later this month.

Early next year, a facilities checkout booster will be erected on one of the Mobile Launchers inside high bay 1 of the VAB. At that time, the S-IVB stage will be transferred to high bay 1 where an entire Saturn V facilities model will be assembled.

The first flight version of the Saturn V is scheduled to arrive at KSC late in 1966 for launch in 1967.

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KENNEDY SPACE CENTER, Florida--The Air Force and NASA have worked out a joint agreement to combine the Sunday drive-through tours of Cape Kennedy and the Merritt Island Spaceport, it was announced today by Major General Vincent G. Huston, Commander of the Air Force Eastern Test Range, and Dr. Kurt H. Debus, Director of the John F. Kennedy Space Center, NASA.

Hours of the new tour, covering both complexes, will run from 9:00 A.M. to 3:00 P.M., starting Sunday, November 14.

Combining of the tours has been under study for some time by Air Force and NASA officials, but certain traffic problems had to be ironed out before the new tour plan could be placed in effect.

Visitors will be permitted to use either the south entrance to Cape Kennedy or the NASA Causeway–Route U.S. 1 entrance to Merritt Island. Security police will direct traffic at either gate, and markers will be placed along the tour route.

Because of the prolonged tour, rest stops will be available in the industrial area at Cape Kennedy. It is estimated that the entire drive-through will take approximately two hours.

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PUBLIC INFORMATION OFFICE, COCOA BEACH – 783-7781, KSC – 867-2467
Highlights of the tour will be a drive-by of Minuteman, Atlas and Titan ICBM areas; Complex 14, launch site of Project Mercury astronauts; Complex 19, launch site of the Gemini pilots; Saturn facilities; Titan III Integrate-Transfer-Launch complex; and the Vehicle Assembly Building on Merritt Island.

The combined tour will cover approximately 60 miles, and visitors are reminded that there are no gas facilities on either the Air Force or NASA installations.
John F. Kennedy Space Center, NASA
Kennedy Space Center, Florida
Public Information Office

IMMEDIATE RELEASE
November 9, 1965

The National Aeronautics and Space Administration today announced the launch of Gemini 7 -- the first of two launches in a combination long-duration mission and rendezvous of two manned Gemini spacecraft--is scheduled no earlier than December 4.

If preparation of launch facilities and checkout of launch vehicle and spacecraft proceed as presently planned, the launch of Gemini 6 will follow nine days later on December 13.

Astronauts Frank Borman and James A. Lovell, Jr. are command pilot and pilot respectively for the Gemini 7 mission. It will be the first space flight for each. Astronauts Edward H. White II, and Michael Collins are the backup crew men.

Walter Schirra is the command pilot of Gemini 6 and Thomas P. Stafford is the pilot. It will be the second space flight for Schirra. Astronauts Virgil I. Grissom and John W. Young are the backup pilots.

The Gemini 7 mission is scheduled for up to 14 days. The purpose of this flight is to further determine the effects of long duration flight on man. Twenty scientific, medical and technological experiments are scheduled to be carried on Gemini 7 mission.

The mission plans for Gemini 6 are nearly identical to those of the original rendezvous flight which was postponed on October 25, when the Agena target vehicle failed to achieve orbit. (An intensive study is now under way to determine the cause of the Agena failure.)

Gemini 6 will rendezvous with the Gemini 7 target spacecraft during the fourth revolution and station-keep with the Gemini 7 spacecraft for a period of time. Maximum duration of the Gemini 6 mission is two days. While the spacecraft will approach within close proximity of the Gemini 7 spacecraft, it will not dock with it.
No major changes have been made in the Gemini 7 mission. The Gemini 6 mission will have no major impact on the accomplishments of Gemini 7 objectives. The Gemini 7 flight trajectory has been modified to provide support as a target for the Gemini 6 rendezvous mission.

The purpose of proceeding with the attempt to launch Gemini 7 is to demonstrate as early as possible a rendezvous of two vehicles in space.

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KENNEDY SPACE CENTER, FLA.--The command and service modules of Apollo spacecraft 009 continue an extensive test and checkout cycle to prepare them for flight aboard the first Saturn IB launch vehicle.

Unlike the boilerplate Apollo versions which capped the last 5 Saturn I rockets, Apollo 009 will be a fully instrumented spacecraft, complete with all subsystems except a guidance and navigation subsystem and fuel cells and their supporting cryogenic subsystem.

Apollo will also be equipped with a programmer to simulate reactions of the astronauts, who later in the program will man the Apollo.

The instrumented Apollo -- command and service modules and a Saturn/lunar excursion module adapter (SLA) -- will be launched by the Saturn IB to check spacecraft-launch vehicle mechanical compatibility and to test the spacecraft heat shield in a high-velocity reentry mode.

Gordon Turner, KSC spacecraft test conductor, said the command module would first go to the Hypergolic Building at the Center for environmental control subsystem servicing and checkout of the electrical power subsystems.
Calibration and functional tests will then be conducted on the reaction control subsystem. From here the command module will be taken to the Pyrotechnic Installation Building where it will be fitted with parachutes and ordnance items. Weight and balance tests will follow, before the spacecraft is transferred to the Manned Spacecraft Operations Building.

Meanwhile, the service module is at Cape Kennedy Launch Complex 16 for leakage checks on the service propulsion subsystem engines. Static firing of the engines will be conducted. After more checks for leaks, the propulsion subsystem will be decontaminated.

The service module will then be mated to the command module in the Manned Spacecraft Operations Building high bay area. The two modules will be checked on a polarity fixture, which rocks the spacecraft off center in a test of spacecraft reaction control subsystem jets to correct 009’s attitude.

Following integration checks, Turner said the flight nozzle of the service propulsion system engine will then be installed.

Spacecraft 009 will be transferred to Launch Complex 34 and mated to the Saturn IB launch vehicle.

At the pad more integration checks will be run, this time with the spacecraft and booster, and electrical mating will be accomplished. A countdown demonstration and flight readiness test will be held prior to actual launch, which is scheduled for early next year.

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Actually, Turner said, KSC participation in the flight preparation of Apollo Spacecraft 009 began several months ago when he and a team of Center engineers participated in testing at North American's Downey, California plant.

The test conductor also said ACE-S/C (automatic checkout equipment for the spacecraft) is being used for the first time on Apollo 009 to run all subsystems checks as well as the actual countdown.

Following launch, the spacecraft will separate from the Saturn IB, and two burns of the spacecraft propulsion engines are scheduled before reentry.

Turner said the mission calls for recovery of the Apollo command module.

-end-
Nov. 22, 1965

KENNEDY SPACE CENTER--A heavy steel beam was hoisted into place atop the 402-foot Mobile Service Structure at the Kennedy Space Center, Friday afternoon, signifying completion of structural steel work on the facility.

The service structure will be used at Launch Complex 39 for spacecraft fueling and checkout at Apollo/Saturn V pad areas. It will also permit external access to the Saturn V launch vehicle, providing KSC personnel with the capability to replace faulty components at the launch site. The Mobile Service Structure will have five platforms; two for launch vehicle work and three for spacecraft operations at the pad.

An $11.5 million contract for the facility's construction was awarded to the joint venture firm of Morrison-Knudsen-Perini-Hardeman in October 1964.

Although the basic structural steel work has been completed, ground support equipment, spacecraft piping and instrumentation and communication cabling must still be added. Overall completion date for the structure is August 15, 1966.

Participating in the topping out ceremonies were Colonel Robert E. Smetzel, acting chief of the Kennedy Space Center's Facilities Engineering and Construction Branch; Brigadier General A. P. Rollins, Deputy for NASA Support, Office of the Corps of Engineers Chief, Washington, D. C.; Colonel Joseph A. Bacci, Corps resident engineer for the Vehicle Assembly Building; Frank Robertson, project manager for the prime contractor, Morrison-Knudsen-Perini-Hardeman; and Robert Simpson, general manager and L. G. Lancaster, project manager, for Allied Shaffer, sub-contractor for furnishing and erecting the steel.
Kennedy Space Center Project Manager for the Mobile Service Structure is Dick Ellis.
Nov. 22, 1965

KENNEDY SPACE CENTER—To speed up handling of "short lead time" requirements on the Gemini 7 and 6 mission, a special launch support team has been formed.

Team chief is Gordon W. Knight of the Kennedy Space Center. Other members are Major E. L. Mott of the Air Force Eastern Test Range and G. J. Karras of the Goddard Space Flight Center.

Requirements handled by the team generally concern changes involving communications.

"Under normal operations," Knight said, "such requirements would be submitted to NASA Headquarters in Washington and then farmed out to the appropriate agency. This takes a week or more. Our team has been set up to cut down this processing time as much as possible due to the tight mission schedules for Gemini 7 and 6."

Knight explained that when the team receives a requirement they now go immediately to the responsible agency. For instance, if a requirement comes through for an item involving Department of Defense Support, Major Mott will handle it directly.

"Our busy time starts about two weeks before a scheduled launch," Knight pointed out. "Normally, we work in our regular offices until the countdown begins. Then we move into the Mission Control Center at the Cape to support G. Merritt Preston, KSC's Deputy Director for Launch Operations."

The team first went to work prior to the Gemini 6 mission which was postponed last month. Knight said they handled 48 changes in the days before launch of the Agena target vehicle.
Dec. 15, 1965

KENNEDY SPACE CENTER -- A unit built to simulate the weight of a Saturn V lunar launch vehicle first stage was delivered to NASA's Kennedy Space Center yesterday for use in checking out handling equipment and procedures at Launch Complex 39.

The first stage weight simulator came from the Marshall Space Flight Center's Michoud, Louisiana plant by the NASA barge Poseidon. It was unloaded at docking facilities in the turning basin along side the Vehicle Assembly Building.

Kennedy Space Center technicians will use the simulator to gain experience by moving and erecting the unit, which is nearly 140 feet long and weighs about 300,000 pounds.

The simulator will be moved into the high bay area of the Vehicle Assembly Building where it will be used to checkout the overhead cranes that will handle

--more--
Saturn V stages during future space flight operations.

The simulator bears little resemblance to the Saturn V first stage that will launch Apollo spacecraft. This unit is composed of steel rings and support members having a total weight nearly identical to that of a launch vehicle first stage. Overall length and diameter of the unit is also patterned after the first stage of the Saturn V.

Points of attachment for handling equipment are the same on the simulator as those on flight stages, and the unit was delivered on the specially designed, wheeled stage transporter that will carry Saturn V launch vehicle stages from assembly plant to test and launch sites.

A first stage facility checkout unit will be delivered to the Spaceport early next year to assure that all dimensions of assembly and work facilities and that all service connections to the vehicle are installed according to design. This facility-check stage will be delivered by the same barge and will be installed on a transporter the same as the weight simulator.

-end-
Dec. 21, 1965

KENNEDY SPACE CENTER - A Kennedy Space Center public information facility adjoining the Public Information Office in the Cape Royal Office Building on Cocoa Beach will be open to the public during the Christmas holidays.

Information on Space Center tours, pamphlets and brochures on NASA programs, and motion pictures will be available to visitors. The facility will be open daily, except Saturday and Sunday, from 10:00 a.m. to 4:00 p.m., December 22 through December 30.

The motion pictures will be shown continuously and will include Ed White's historic walk in space during Gemini 4, the planned Apollo flight to the moon, the story of the Spaceport on Merritt Island, NASA launches from Cape Kennedy, and others.

Holiday visitors are invited to use the facility which affords an excellent view of the Cape from its 10th floor location. Children under 12 must be accompanied by an adult.

-end-

PUBLIC INFORMATION OFFICE, COCOA BEACH – 783-7781, KSC – 867-2467
Dec. 17, 1965

KENNEDY SPACE CENTER--Delivery of Gemini 8 launch vehicle stages and spacecraft for the rendezvous and docking mission, slated to be launched in the second quarter of 1966, is expected early in January.

The first stage of the Titan II launch vehicle is expected at Cape Kennedy by aircraft on January 4 and the second stage on January 5. The booster stages will be landed at the skid strip of the Cape and taken directly to Complex 19 for erection and the start of test and checkout activities.

The spacecraft will also be flown to the Cape and is slated for arrival on January 7. The spacecraft will be taken to the John F. Kennedy Space Center to begin preparations before it is brought to the launch pad for mating to its launch vehicle.

The Gemini 8 mission will be the first attempt to dock one spacecraft with another in orbit, although rendezvous was accomplished by Gemini 6 and 7. Plans call for an Agena Target Docking Adapter to be launched into orbit, followed by the Gemini 8 spacecraft manned by astronauts Neil A. Armstrong and David R. Scott.

-end-

PUBLIC INFORMATION OFFICE, COCOA BEACH - 783-7781, KSC - 867-2467
December 22, 1965

KENNEDY SPACE CENTER, Fla.—Consolidation keynoted the year 1965 at the Kennedy Space Center.

During the past 12 months the Center assumed responsibility for supervision, checkout and launch of all NASA launch vehicles except the solid-propellant Scout rockets.

In two separate moves to streamline the NASA organizational structure, employees of Manned Spacecraft Center Florida Operations and Goddard Space Flight Center Launch Operations Division were transferred to KSC.

With the move of about 500 MSC-Florida Operations personnel at the beginning of the year, KSC assumed the responsibility for checkout of the Gemini spacecraft, and for assembly, checkout and launch of Apollo spacecraft.

G. Merritt Preston, formerly head of the MSC group, became Deputy KSC Director for Launch Operations.

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With the transfer to the Center in October of the Goddard Space Flight Center's Launch Operations Division, KSC added responsibility for launch of unmanned vehicles, including scientific, meteorological and communications satellites and spacecraft to be used on lunar and planetary missions.

Additionally, KSC now handles launches of unmanned vehicles at the Western Test Range in Lompoc, California.

Robert H. Gray, formerly Manager of Goddard's Launch Operations Division, became KSC's Assistant Director for Unmanned Launch Operations. About 100 government personnel were involved in this consolidation.

Nearly 8,000 NASA and contractor employees moved to the Kennedy Center from scattered sites at Cape Kennedy and in Cocoa Beach. An additional 1,800 workers were relocated to the Merritt Island site in 1964.

Most personnel moved into the Center's Industrial Area. Director Kurt H. Debus and his staff occupied the KSC Headquarters Building.

North of the industrial area, at Launch Complex 39, approximately 1,500 of an anticipated 3,648 employees moved into facilities at the Vehicle Assembly Building and the Launch Control Center during the year.

Apollo/Saturn V vehicles will be prepared for flight at Complex 39.
December 24, 1965

KENNEDY SPACE CENTER, Fla. -- The spectacular double-header Gemini 7 and 6 flights and the orbiting of a Pioneer satellite in mid-December rounded out an important year in Kennedy Space Center launch operations.

Five manned Gemini flights took place and the final three launches of the highly successful Saturn I program were completed under the supervision of KSC Director Dr. Kurt H. Debus.

Twenty-two launches were conducted from Kennedy Space Center facilities in Florida, and two others from KSC facilities on the Western Test Range, Lompoc, California.

Of the 24 launches, 22 were successful for a 92 percent success ratio. This compares with 16 launches in 1964, of which 11 were successful. Three of the others were partial successes and two were unsuccessful.
An even more ambitious year is planned for 1966. Thirty-three launches are scheduled from Kennedy Space Center facilities and another six will take place at the Western Test Range.

Five more Gemini flights are scheduled for the coming year, closing out the program.

Four flights of the Saturn IB/Apollo vehicle are scheduled. Thirty unmanned scientific payloads are to be orbited in 1966, 24 from the Kennedy Space Center and six from the Western Test Range under KSC direction.

Although no Saturn V launches are planned until 1967, a facilities checkout vehicle will arrive soon at the Kennedy Space Center, and will be used to test ground handling equipment, mobile launchers, crawlers, pad installations at Launch Complex 39 and electronics systems.

The first Saturn V flight model will also arrive next year and will undergo extensive checkout and testing for a 1967 launch.

The manned Gemini flights in 1965 were preceded last January 19th by the flight of Gemini 2--the last unmanned vehicle in the program.

Following that, in order, came: Gemini 3, with astronauts Lt. Colonel Virgil Grissom, U.S. Air Force, and Commander John Young, U.S. Navy, March 23; Gemini 4, with Lt. Colonels James McDivitt and Edward White, U.S. Air Force, June 3; Gemini 5,

All Gemini spacecraft were checked out and tested at KSC prior to flight. Deputy Center Director for Launch Operations, G. Merritt Preston, serves as Deputy Mission Director for Launch Operations on all Gemini flights.

The final three Saturn I launches -- in a 10-flight program that began October 27, 1961 -- were made in 1965, and were outstanding successes. Each Saturn I vehicle carried a micrometeoroid detection satellite into orbit.

Of the unmanned scientific satellites launched from Kennedy Space Center facilities during the past 12 months, two Rangers -- 8 and 9 -- impacted on the lunar surface after transmitting close-up photos of the moon's features, and two meteorological spacecraft -- TIROS 9 and 10 -- were orbited to transmit weather photos.

Other launches included an Orbiting Solar Observatory; an Early Bird communications satellite, launched for the Communication Satellite Corporation; Fire 2, reentry test vehicle; an interplanetary monitoring satellite; and an Atlas-Centaur vehicle.
Three satellites were launched atop Thor-Agenas at the Western Test Range. One carried two spacecraft into orbit—Alouette 2 and Explorer 31. The other launched an Orbiting Geophysical Observatory.

Scientific and applications satellite launches are under the supervision of Assistant KSC Director for Unmanned Launch Operations, Robert H. Gray.

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Kennedy Space Center, Fla--Florida firms received 59.2 percent of procurement actions during fiscal year 1965 from NASA's John F. Kennedy Space Center.

Businesses located in the state received 28,427 contracts. This amounted to $43,448,845.

M.E. Haworth, Jr., KSC procurement chief, said 48,017 actions amounting to $283,498,000 were completed, an increase of $51,466,000 or approximately 18 percent over the previous year.

Of this total, 61.1 percent, or $173,314,000, went to business firms. The balance was placed with other government agencies and non-profit organizations.

Small businesses in Florida also received a share of the Kennedy Space Center's business, totaling 19,029 awards or $7,324,456.
Nationwide, small businesses received $21,303,097 from 26,419 actions. Included were 242 "set asides" -- purchases reserved specifically for small business -- amounting to $1,690,915. Another $31,500,000 in small business set asides were allocated by the Corps of Engineers for construction at KSC.

Small businesses participating as subcontractors received another $4,397,864 in contracts.

Thomas M. Davis, chief of the industry advisor's office, reported his staff interviewed 1,148 industry representatives, advising them on Kennedy Space Center procurement policies and small business matters.

Staff personnel attended 10 industry seminars, eight of which were in Florida, one in Georgia, and one in Pennsylvania. During the seminars, attended by more than 95,000 persons, they conducted 262 interviews with industry representatives and distributed 1,978 leaflets explaining Kennedy Space Center activities.

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December 22, 1965

KENNEDY SPACE CENTER - Nineteen sixty-five was a busy year at the Kennedy Space Center, but 1966 promises to be even busier. The following is a projection of NASA activities at KSC for the coming year, made by Center Director Dr. Kurt H. Debus:

"NASA launch activities will continue on the upcurve in 1966 even while we are completing the new facilities of the Kennedy Space Center on Merritt Island.

"Some 29 launches are scheduled from the complexes we operate on Cape Kennedy. Five will be manned Gemini flights. Four will be flights of the new Saturn 1B/Apollo system and 20 will be scientific payloads.

"Additionally, we will launch 10 scientific spacecraft from our facilities at the Western Test Range in California.

"The tempo of events on the Spaceport will quicken next month with the arrival of the facilities test version of the Saturn V. By late Spring we will be testing ground
handling equipment, mobile launchers, crawlers, pad installations and the electronics systems which tie all of these together at Complex 39.

"The first flight stages will arrive next Fall for an unmanned launch which will be the first of the Saturn V/Apollo series.

"Thus, in 1966, we will have two Saturn V vehicles in Complex 39. One will never fly, but it will enable us to check out all the equipment and facilities required to launch these big rockets. The other will be launched from the Spaceport in 1967.

"These scheduled activities require that major new facilities must be ready and the equipment must be functioning properly. Construction work is well advanced. Equipment is being installed. We are confident of meeting the operational dates in 1966 and 1967.

"Reflecting the faster pace of the manned space flight program, employment will increase at the Kennedy Space Center.

"Our Civil Service manpower will grow a bit next year to a total of 2,450. Major increases will be seen in the payrolls of stage and support contractors. About 5,000 more people will be at work on the Spaceport by the end of 1966.

"NASA construction projects on Cape Kennedy and Merritt Island will require about 4,000 construction workers and equipment installers."
"This growing enterprise has great meaning for the community which has already felt the impact of the $100 million payroll that NASA has brought to Brevard County. We hope the community will be ready to absorb the additional population. If this is to happen, however, some planning should be under way right now.

"Much remains to be done to alleviate the traffic problems. Better roads are a must. We count upon the continued cooperation of Governor Bums, the State Road Board, and the County Commission to develop solutions. Working together, I am sure we can overcome any obstacles.

"To my colleagues of the Space Center, to the Air Force Eastern Test Range personnel, and to our friends in the community, I extend my sincere wishes for the Merriest of Christmases and a Happy New Year."

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Dec. 27, 1965

KENNEDY SPACE CENTER, Fla. -- A record 28,000 invited guests visited the John F. Kennedy Space Center during 1965. They were guests of the Kennedy Space Center's Protocol Office which is responsible for escorting U.S. and foreign dignitaries, members of Congress, leading figures in industry and business, educators, students, and groups requesting tours.

Nearly 1200 visits to the space center were made by foreign nationals, representing 70 nations. The balance consisted of U.S. citizens.

Highlights of the year were two visits by Vice-President Hubert Humphrey.

During his February visit, the first ever made to the space center by the Vice President, Humphrey spent over 6 hours touring NASA and Air Force facilities, and was briefed on the Center's space programs, including the then pending launch of Gemini 3.

In March, the Vice President returned to the space center to watch Gemini 3 astronauts John Young and Gus Grissom make the first manned Gemini flight.

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Gemini 3 also drew what was probably the largest congressional contingent ever to visit the space center at one time. The group consisted of nine U.S. senators and 24 members of the House of Representatives.

Other VIP's to visit the space center included Secretary of State Dean Rusk, NASA Administrator James Webb, and Robert J. Oppenheimer, renowned physicist.

Activities during the past year emphasized the Kennedy Space Center's role in international affairs. Foreign leaders visiting the Center included Crown Prince Bertil of Sweden; Chung Hee Park, President of the Republic of Korea; and Mayor Willy Brandt of West Berlin.

Additional international flavor was added by the visits of Ukadder Ozekin, Governor of Adana, Turkey; Lt. Gen. Camilo Vega, Spanish Minister of Interior; and a group of 65 ambassadors to the U.S. from various foreign countries.

Official visitors, those who must have access to the space center for business purposes, broke all records with over 91,000 admitted to the Kennedy Space Center.

Launch of Gemini 3 made March the busiest month, with 8,634 visitors coming through the gates. The slowest month was January, with 6,384 persons applying for admission.

Statistics concerning official visitors to the space center can be deceiving, however, since most temporary badges are issued for more than one day.
KENNEDY SPACE CENTER, FLA.--An electrical mating of the Gemini 7 spacecraft and its launch vehicle at Complex 19, and re-installation of modified spacecraft components highlight the week's activities as NASA continues to prepare for an unprecedented one-two space rendezvous mission.

Plans call for astronauts James Lovell and Frank Borman to be launched in Gemini 7 for a 14-day flight, and for astronauts Wally Schirra and Tom Stafford to follow them into orbit in their Gemini 6 spacecraft within the 14-day period to effect a series of rendezvous tests.

Gemini 7 spacecraft test conductor Fritz Widick of the Kennedy Space Center said crews were installing a flashing light in the spacecraft adapter.

Also, the rendezvous and recovery module, which has been modified at the McDonnell home plant in St. Louis, has been returned and will be reinstalled and re-tested.

The electrical mating is expected to take place at the pad Thursday and Friday.

Meanwhile, at the Pyrotechnic Installation Building, the Gemini 6 spacecraft is undergoing integrity tests of propellant systems.

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Chief KSC spacecraft test conductor George Page said the "wet mock" simulated launch for Gemini 7, which is virtually a practice countdown, will not be conducted. Cancellation of this step may move up the launch day for spacecraft 7 as much as four days.

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Nov. 17, 1965

KENNEDY SPACE CENTER, FLA.--Intense preparations on two Gemini spacecraft are continuing at the Kennedy Space Center this week for the double launch and rendezvous in orbit scheduled early next month.

The Gemini 7 spacecraft of astronauts James Lovell and Frank Borman is at Launch Complex 19. The week's schedule calls for a joint combined systems test of the launch vehicle and spacecraft.

Following this, the launch vehicle will be put through tanking exercises, and later in the week flight seats will be installed in the spacecraft.

The Gemini 6 spacecraft of astronauts Wally Schirra and Tom Stafford, meanwhile, has been transferred from the Pyrotechnic Installation Building at the Kennedy Space Center to the Cryogenics Building, where it will be prepared this week for hypergolic servicing.

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NASA has announced that the launch of Gemini 7 is scheduled for no earlier than December 4. If preparation of launch facilities and checkout of launch vehicle and spacecraft proceed as presently planned, the launch of Gemini 6 will follow nine days later on December 13.

Plans call for Gemini 6 to rendezvous with the Gemini 7 target spacecraft during the fourth revolution. Maximum duration of the Gemini 6 mission is two days. The Gemini 7 mission is scheduled for up to 14 days. Flight purpose is to further determine the effects of long duration flight on man.

Mission plans for Gemini 6 are nearly identical to those of the original rendezvous flight which was postponed on October 25.
Nov. 12, 1965

KENNEDY SPACE CENTER—The John F. Kennedy Space Center is leasing the tenth floor of the Cape Royal Office Building, A1A, Cocoa Beach, for news operations during the Gemini 7 and 6 flights scheduled December 4 and 13.

NASA will establish a news center at this location serving the press, radio and television organizations covering the two manned launches. It is estimated that more than 600 media representatives will be in the area.

The Gemini news center will open on Monday, November 29. It will be manned 24 hours a day while the missions are in progress and from 8:00 a.m. to 9:00 p.m. during the pre-launch and post launch periods of operation.

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