Space News NASA ROUNDUP!

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Williams Named Operations Director For Manned Space Flight

Elms Assumes All Deputy Functions

Dr. George E. Mueller, NASA associate administrator for Manned Space Flight, today named Dr. Walter C. Williams to be Operations director for all manned space flight missions.

Effective November 1, Williams, now deputy director of Manned Spacecraft Center for Mission Requirements and Flight Operations at Houston, will become deputy associate administrator for Manned Space Flight operations in NASA Headquarters, Washington, D. C.

Williams will supervise operations on manned space flight missions at the Manned Spacecraft Center, Marshall Space Flight Center, and Launch Operations Center. During manned space flight missions, he will have full authority and responsibility for conduct of the flights. All NASA-DOD and other teams participating in the operation will report to him for direction.

Dr. Mueller said "because of the increasing complexity of NASA's manned space flight projects, we must have a key man to direct the operations of the many organizations and installations located throughout the United States and the World that contribute to the conduct of a flight mission. We are indeed fortunate to be able to rely on the unique experience of Williams in Project Mercury for the more challenging tasks ahead in Gemini and Apollo."

James C. Elms, deputy director of MSC, will as-

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Announcement of the assignment of Dr. Walter C. Williams to the post of Deputy Associate Administrator for Manned Space Flight Operations under Dr. George E. Mueller, NASA Associate Administrator for Manned Space Flight, is the latest in a series of reassignments in the manned space flight program.

James C. Elms, Deputy Director of MSC, will assume full responsibility for general management of the Manned Spacecraft Center activities under Dr. Robert R. Gilruth, Director of the Center.

A reorganization of MSC has been under study for some time. It is planned to realign the Center to obtain maximum direct input from Engineering, Mission Control and the Astronaut Flight Crews into the Gemini and Apollo programs and to deploy the full strength of the Mercury team into these projects. Key elements such as the Mission Control Center, the Preflight Operations Group at Cape Canaveral, and the astronauts and crew training groups will continue to give maximum support to the spacecraft development while readying themselves for their key role as part of the operations team during the actual manned flight missions.

JAMES C. ELMS

WALTER C. WILLIAMS

14 New Astronauts Introduced At Press Conference

The Manned Spacecraft Center introduced America's 14 new astronauts to the world at a press conference held October 18 here in Houston, bringing to 30 the total assigned to the National Aeronautics And Space Administration's astronaut training center.

The new group of astronauts is composed of seven volunteers from the Air Force, four from the Navy, one from the Marine Corps, and two civilians. They are, from the Air Force: Maj. Edwin E. Aldrin Jr. 33, assigned at Houston Tex.: Capts. William A. Anders, 30, and Donn F. Eisele 33, both assigned to Kirtland AFB, N. Mex.; and Capts. Charles A. Bassett II 31; Theodore C. Freeman 33; David R. Scott 31; and Michael Collins 32, all assigned at Edwards AFB. Calif.

The Navy volunteers are: Lt. Cmdr. Richard F. Gordon Jr. 34, and Lt. Eugene A. Cernan 29, both assigned at Monterey, Calif.: Lt. Alan L. Bean 31, Cecil Field, Fla.: and Lt. Roger B. Chaffee 28, Wright-Patterson AFB, Ohio.

The Marine is Capt. Clifton C. Williams Jr. 31, of Quantico, Va.

The two civilians are R. Walter Cunningham 31, a research scientist for Rand Corporation at Van Nuys, Calif.: and Russell L. Schweickart 27, a research scientist from Lexington, Mass., who works at Massachusetts Institute of Technology, Cambridge, Mass. All are married except Captain Williams, NASA's first bachelor astronaut.

The group was selected from a total of approximately 500 volunteers from the military and 225 civilian applicants.

The selection was the third such announcement since America's manned space flight program was started, in October 1958. The seven Project Mercury astronauts were named in April 1959 and nine more were selected in September 1962. Those named will report for duty and start their training early in 1964, according to Astronaut Donald K. "Deke" Slayton, coordinator of astronaut activities for MSC and chairman of the 1963 Astronaut Selection Committee.

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NEWEST ASTRONAUTS—They are seated l. to r. Edwin E. Aldrin Jr., William A. Anders, Charles A. Bassett II, Alan L. Bean, Eugene A. Cernan, Roger B. Chaffee and standing l. to r., Michael Collins, R. Walter Cunningham, Donn F. Eisele, Theodore C. Freeman, Richard F. Gordon Jr., Russell L. Schweickart, David R. Scott, and Clifton C. Williams Jr.

Built-In Space Laboratory Centrifuge Would Provide Artificial Gravity

A centrifuge built into a manned space laboratory is conceived as one solution to problems of weightlessness now confronting astronauts planning extended orbital flights.

Short-radius centrifuge tests currently under way at Douglas Missile & Space Systems Division at Santa Monica, Calif., indicate the feasibility of on-board centrifuges to keep space men in "condition," so they won't lose blood system control, muscle tone or the ability to walk or stand when they return from the zero gravity of orbit to the normal gravity state.

Prolonged periods of weightlessness pose a major problem for astronauts scheduled to stay up to a year in a space research laboratory.

Dr. D. R. Collier, Jr., in charge of the Douglas Life Sciences Section's centrifuge experiments, compares man in the weightless state to a wrestler who breaks training.

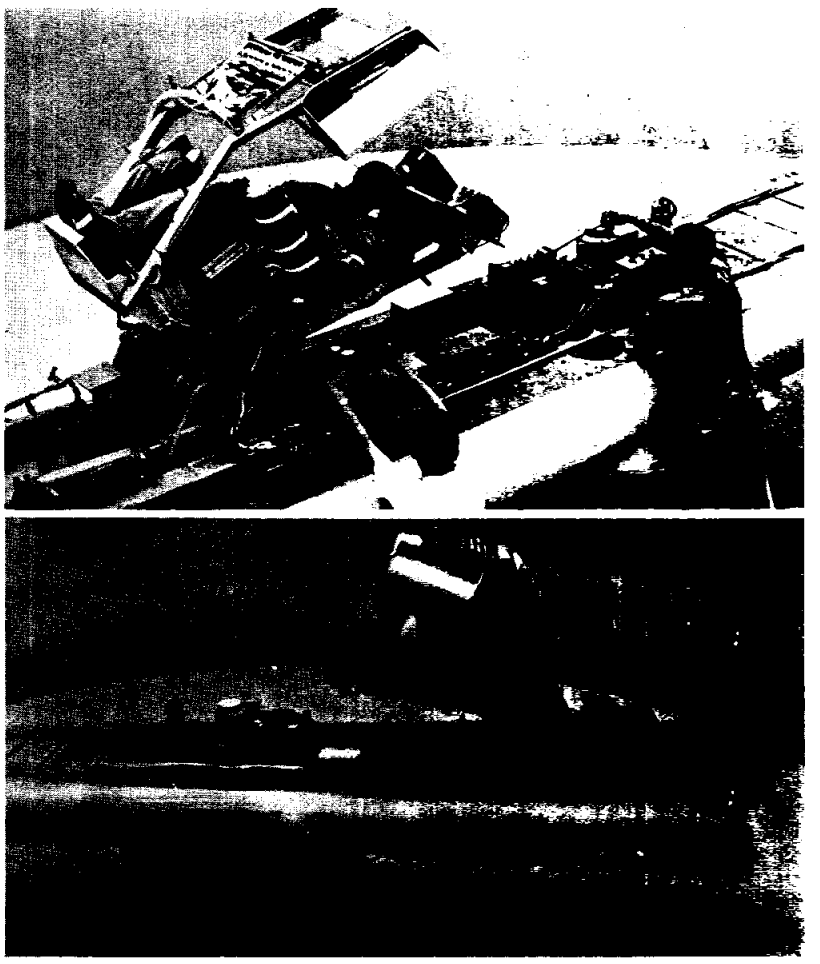
"Without gravity pull," he said, "the blood circulation system and muscles may deteriorate from lack of use. Astronauts may have to learn to walk anew like persons who have been bedridden for several months. It is believed by some authorities that the return to the normal gravity state will have a severe upsetting effect upon the heart and other organs."

Dr. Collier said that in the series of Douglas tests, men clad in space suits were rotated at 30 revolutions per minute on a centrifuge arm having a 104-inch radius and achieving a force of 2 G's (twice that on earth).

A phase of Douglas' extensive research in manned space stations, the experiments demonstrated the value of a centrifuge as a mechanism which could provide astronauts with an artificial, earth-like gravity whenever needed during prolonged orbital missions.

Most previous tests with humans have been conducted on a long-radius centrifuge (radius of 50 feet or more). But with the limited dimensions of proposed manned space laboratories, size of the on-board centrifuge would have to be kept to a minimum. The Douglas tests are among the first in which humans have been subjected to prolonged exposure on a short-radius centrifuge.

In all tests so far, Dr. Collier said, the subjects' blood pressure, pulse, respiration, general condition and blood cellular changes have shown marked reaction to rotation on the centrifuge. Upon cessation of the run, each person displayed a fairly rapid return to normal values.



AROUND AND AROUND—Series of tests conducted at Douglas Missile & Space Systems Division in Santa Monica, Calif., indicated feasibility of using centrifuges to keep astronauts in physical condition during prolonged stays in orbital space stations. In top photo, Dr. D.R. Collier Jr., strapped into centrifuge seat, awaits completion of instrumentation hookup on centrifuge arm. Seat is mounted at short radius so that it rotates within same restraint as an on-board centrifuge in a space station. In front of him is a display panel for psychological testing during the rotations. Camera behind him photographs his image reflected in mirror on panel. Bottom photo shows Dr. Collier rotating at 30 revolutions per minute under 2 G's of force, testing his adaptability to artifical gravity.

'Smog' In Spacecraft Is Problem On Extended Flights

Any astronaut making an extended space flight takes one of Los Angeles major problems with him--smog, or at least a form of the infamous southern California phenomenon.

Not only does a spacecraft take the problem along, but it is intensified in several ways, so said a Los Angeles Lockheed Missiles & Space Company scientist who has been working on the problem with experts from the Navy's Special Projects Office.

The culprits in the spacecraft environment are the aerosols and trace particles which are created by the equipment used or are developed as the equipment is used. This is in addition to the gaseous contaminants such as carbon dioxide or carbon monoxide which usually get the blame for the tears shed on the Los Angeles freeways.

The authors are Dr. Joseph W. Wissel, manager of the Polaris human engineering staff, LMSC, and Capt. Jack L. Kinsey, of the Navy's Medical Corps, who heads the Polaris Special Projects Office's medical staff.

In a paper presented before the national aeronautic and space engineering and manufacturing meeting of the Society of Automotive Engineers in Los Angeles recently, they said the concentration of the contaminants in submarines is twice that of the Los Angeles atmosphere. Even more important, the contaminants in a space vehicle, similar to those in a submarine, would have eight times as much organic substances containing a considerable amount of strongly acid materials.

Their estimates were from studies made by the Naval Research Laboratories. The studies were based on experience gained during extended submerged voyages by Polaris submarines whose environment or atmosphere closely approximates that to be expected in manned space vehicles on extended flights.

Where do these contaminants come from?

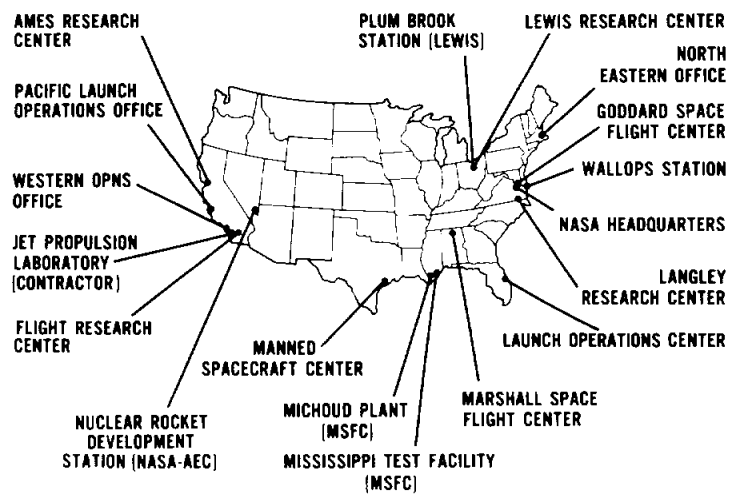
There are no automobiles spewing exhaust fumes in the submarines, nor are there industrial plants clouding the atmosphere.

But everything from the paint used inside the submarine to the mass of electronic equipment gives off particles which contaminate the air. And the hazard has to be, and is, reduced to a safe and comfortable level.

Briefly, this is done by carefully screening all materials going into the submarine's interior, especially any equipment including gaseous materials and liquids, and even solid material which under heat or stress might give off contaminants.

While a small electrical fire in a submarine would not be critical, the resulting contaminants could prove catastrophic in a spacecraft, Dr. Wissel said.

The experience gained in submarine studies is being put to good use in solving the anticipated problems of extended space flights. This is only a part of the human engineering job which must be done before man goes to the moon, Mars or other planets.



NASA CENTERS—In the five years since the National Aeronautics and Space Administration was established, it has grown from four to eighteen centers. Ten of these are major research centers. A nineteenth facility, not shown on the above map, is being built at the White Sands Missile Range, N.M.

Study Indicates Cooper Could Have Seen What He Reported

Sightings of ground objects such as those observed by Astronaut Gordon Cooper during his 22-orbit flight last May are not impossible if atmospheric conditions are ideal and the observer is highly experienced in making high altitude observations.

This was the report from Dr. S. Q. Duntley and Dr. John H. Taylor of the University of California's Visibility Laboratory, San Diego, in a study made for the NASA Manned Spacecraft Center. This study was initiated as a result of the controversy caused by the statements of some scientists that Astronaut Cooper could not have seen what he claimed to have seen.

"It must be emphasized that the visibility calculations described in this study do not constitute proof that Major Cooper actually saw what he reported. They do, however, show that such sightings are not impossible by an observer at orbital altitude if his visual capabilities are like those which we believe Major Cooper possesses, and if the atmospheric conditions and target properties are like those we have assumed in making the calculations," according to Dr. Duntley, Director of the Visibility Laboratory.

There has been controversy over the claims by Astronaut Cooper in which he reported seeing roads, vehicles, buildings and smoke during his flight. The Visibility Laboratory study is a report on the results of these calculations using visual data in the field and in the laboratory.

"We are talking only of the probabilities that an observer who fixates accurately upon an area containing a target will see that target," Duntley said. "This, we believe, is the proper datum in this instance because, in each case some highly visible mark, such as a road, aided Major Cooper in finding the objects he reported."

In conclusion, Dr. Duntley emphasized that the calculations reported "are based upon assumption concerning the target, the background, and the atmospheric conditions which we believe to have prevailed on the occasions when Major Cooper reported seeing the objects. There is no way of proving that these conditions did in fact, prevail but it can be stated that if they did exist, then the visual sighting of these objects by an astronaut as capable as Major Cooper from an orbital altitude of 86 nautical miles have a finite probability."

$6-Million Additional Facilities Scheduled For Clear Lake Site

Bids have been invited from contractors on approximately $6,000,000 of additional facilities construction at the Manned Spacecraft Center, Clear Lake site, by the Corps of Engineers, Ft. Worth District.

The work will cover the following areas at the Center's Clear Lake site:

Construction of a Mission Simulation and Training Facility containing 54,537 square feet, which will house trainers and mission simulators, a computer room, maintenance area and offices. The training building will contain a high bay area approximately 60 feet tall.

Trainer and simulation equipment will be furnished under another funding action.

Approximately 8,200 square feet will be added to the Central Heating and Cooling Plant which will contain one 60,000-pound-per-hour steam boiler and two 2,000-ton refrigeration units.

The sewage treatment plant will be expanded to permit treatment of 310,000 gallons of raw sewage per day. The present facility has a 160,000 gallon daily capacity.

Other invitations for bids are for the extension of approximately 2,000 feet of utility tunnels, expansion of the electrical distribution system, the paving of 7.4 miles of roads, and the installation of storm drains, sidewalks and landscaping.

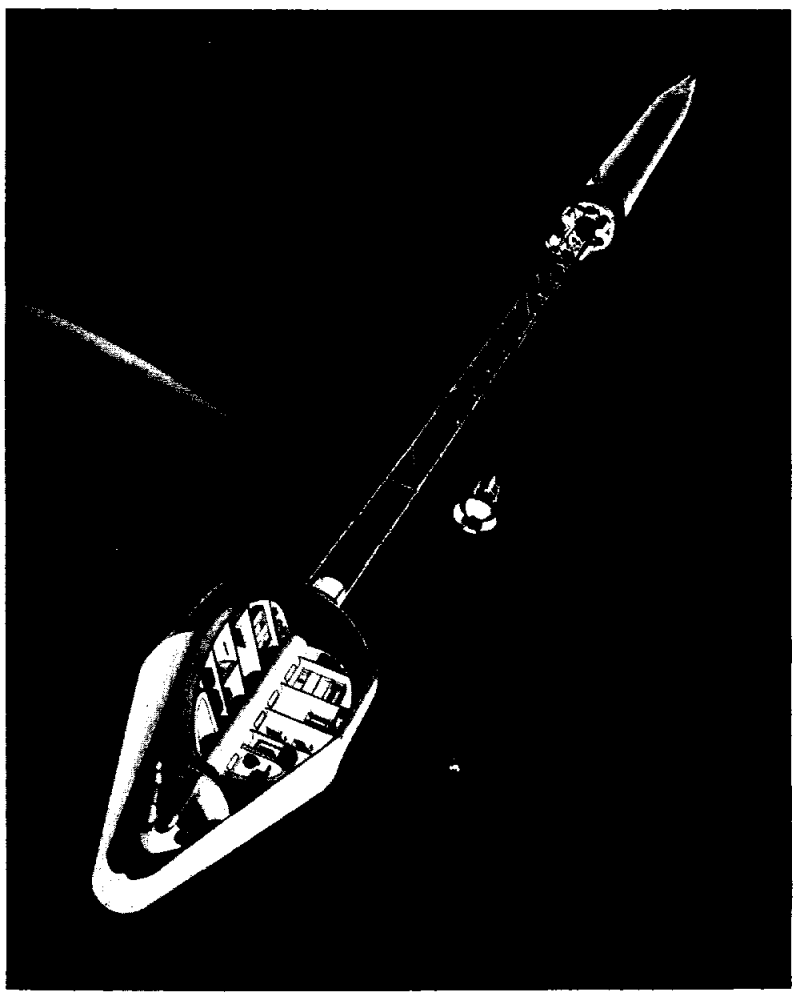
The total construction is to be completed within 15 months of contract award.

The Corps of Engineers told contractors that the formal issuance of notice to bid will be made November 21, with opening of bids on or about December 20.

Prime contractors are required to submit to a pre-qualification review to be eligible to bid on the work, the Corps said. Data for pre-qualification review must be submitted to the Corps' Fort Worth office by November 7.

A joint venture formed by contractors for the purpose of bidding on the proposed construction will be considered, providing other requirements are met.

The Corps also disclosed that firms interested as subcontractors or suppliers need not be pre-qualified in order to furnish their bids to the prime contractor.



MULTI-PURPOSE PLANETARY SPACECRAFT— Concept of a multi-purpose spacecraft for second-generation manned interplanetary trips. As conceived by an engineer of the Lockheed Missiles & Space Company, it would employ electrical propulsion to reduce booster requirements. Now under study, the vehicle would be 33 feet in diameter and 200 feet long when retracted—560 feet when fully extended upon separation from the booster. It would consist of a nose fairing, abort capsule and command module; shielded radiation shelter; mission module and living quarters for the crew; telescoping triangular tower structure; planetary landing vehicles, service module, swiveling ion engines; thermal-radiation shields, thermal radiator, and a reactor with shielding and conversion equipment. Minimum crew for the vehicle would be five astronauts.

Study Contract For Gathering Lunar Information Awarded

Texas Instruments, Inc. of Dallas has been awarded a $194,600 contract by the NASA Manned Spacecraft Center to study the best methods of gathering scientific information and lunar samples once the Apollo space team lands on the moon.

Major objectives of the study include measurements which will add to the success of future Apollo and other missions and measurements which will contribute to the fundamental knowledge of the moon.

The study is to be completed by May 30, 1962 and out of it will come the optimum methods for planning lunar scientific exploration once the Apollo flight missions are undertaken.

In the study, Texas Instruments was asked to define methods of determining lunar surface temperature, topography, bearing strength of the moon's surface, temperature geological formation, chronological age, mineral content and search for water. For the purpose of the study certain flight mission criteria have been assumed.

The study asked for plans for two Apollo flights each of four hours working time on the moon. Only one astronaut will be outside the spacecraft at any given time, during these two proposed flights. The study also will cover flights with expected stay times up to one week on the lunar surface and the possibility that both astronauts may be out of the LEM at the same time.

The scientific payload will weigh at least 215 pounds. It is planned to be carried in an area outside the environmental quarters of the LEM and will be exposed to space flight hazards for periods up to a week. The payload must be capable of withstanding extremes in temperature and the shock of launch and landing.

When the space pilots depart from the moon, the study calls for them to leave measuring instruments that will send information to earth for periods up to six months. These instruments will have self-contained power and telemetry transmission equipment.

AF Systems Command Offices Established Here

Three USAF liaison offices were established recently at the Manned Spacecraft Center to represent divisions of the Air Force Systems Command connected with various MSC programs.

The AFSC Space Systems Division Field Office will provide overall Air Force management at MSC for the Department of Defense participation in the Gemini program.

Detachment 1, Headquarters Air Force Missile Test Center, AFSC, USAF, Patrick Air Force Base, Fla., will provide liaison between the Gemini Support Planning office and MSC in all areas of DOD support for NASA, primarily in the network support and recovery operations area.

The Scientific and Technical Liaison Office (STLO) from the research and Technology Division, AFSC, will provide liaison and information exchange between the Air Force and all elements of MSC.

In addition to these three offices the Air Training Command has placed a resident representative in the AFSC/STLO to provide a source of contact with AFSC and NASA for personnel and training planning.

Agena Systems Test $2-Million Contract Awarded Lockheed

A contract for a new vehicle systems test complex for the Air Force Agena target vehicle being used in the NASA Gemini program has been awarded Lockheed Missiles & Space Co., Sunnyvale, Calif., it was announced recently by the National Aeronautics and Space Administration.

The 2-million dollar contract calls for developing the equipment to be used for the full systems check-out of the Air Force Agena prior to its shipment to the Cape Canaveral launch site

The work will be done at LMSC's Van Nuys plant.

The all-purpose Lockheed-built Agena, which has performed a wide variety of roles in the nation's space programs in the past four and one-half years, is destined for a completely new one in the Gemini project.

One-Man Space-Moon Rocket Study Contract Is Awarded

Hamilton Standard Division of United Aircraft Corporation of Windsor Locks, Conn. has been awarded a $68,717.00 contract by the NASA Manned Spacecraft Center to study and recommend a one-man rocket powered device for movement in space and on the surface of the moon.

Major objectives of the study and design contract are to make it possible for a space pilot in a pressure suit to travel over portions of the moon that are not accessible on foot, and to maneuver outside of his spacecraft if necessary.

In space, the system would propel and guide the astronaut when he leaves the spacecraft to perform maintenance tasks or to transfer from one space vehicle to another.

The study is to be completed by April 30, 1964 and from it will come a recommendation for a preliminary design for the one-man system.

Williams

(Continued from page 1)

sume full responsibility for general management of the Manned Spacecraft Center activities under Dr. Robert R. Gilruth, director of the Center.

Williams has 23 years of flight engineering experience with the NACA and NASA. For the past 16 years he has managed the operational phases of advanced research type aerospace projects, including the X-15 aircraft and Project Mercury. During this time, he made many outstanding contributions in the field of high-speed flight research and was awarded the NASA Distinguished Service Medal for his outstanding technical leadership as director of Operations for Project Mercury.

Williams is a native of New Orleans, La. He received a B.S. degree in aeronautical engineering from Louisiana State University, Baton Rouge, in 1939, and an honorary doctorate degree for engineering from his alma mater in June 1963.

Williams is married to the former Helen Manning of New Orleans, La. They have three children -- Charles Manning, born Nov. 26, 1942 a business major and pre-law student at the University of Houston; Howard Lee, born Oct. 3, 1948, and Elizabeth Ann, born Sept. 12, 1952.

Because Williams will have major duties in the Houston area as well as in Washington and Cape Canaveral, he will continue to reside in Houston, but his principal office will be in Washington.

Newest Group Of Volunteers Composed Of Seven Air I

(Continued from page 1)

NASA presently plans to select another contingent of astronauts, likely to include some scientists, in the Fall of 1965. The National Academy of Science is cooperating with NASA in establishing criteria for selection of astronaut scientists.

The latest astronaut recruitment effort was announced by the NASA June 5 and July 1 was set as the deadline for applications. Since that date, the following actions were taken prior to making the selection.

July 15 - Deadline for the receipt of all papers required of the applicants.

July 17-20 - The selection committee met and selected 34 for detailed evaluation.

July 25 - Medical examinations of those men were started by the School of Aerospace Medicine, Brooks AFB, Tex., under contract from the Manned Spacecraft Center. Working with School of Aerospace Medicine data, MSC medical authorities selected 28 as medically qualified.

Sept. 2-7 - These men were called to Houston for examinations concerning engineering and space sciences, technical interviews and final evaluation.

Selection criteria, as outlined in the June 5 announcement, required that astronaut candidates, in order to qualify, must:

...Be a United States citizen

...Have been born after June 30, 1929, so as not to have reached his 34th birthday before the deadline for applications

...Be six feet or less in height

...Have earned a degree in engineering or physical science.

...Have acquired 1,000 hours jet pilot time, or have attained experimental flight test status through the Armed Forces, NASA, or the aircraft industry, and

...Be recommended by his present organization.

Compared with the 1962 selection criteria, the maximum age was reduced from 34, and certification as a test pilot, while still preferred, was not mandatory.

In order to insure that no qualified person was overlooked in the selection, Manned Spacecraft Center solicited recommendations from the military services, various reserve organizations, industrial aerospace firms, and other organizations such as the Society of Experimental Test Pilots, the Airline Pilots Association and the Federal Aviation Agency.

Following are brief biographical sketches of the new astronauts:

Edwin E. Aldrin Jr.

Maj. Edwin E. Aldrin Jr., 206 Confederate Way, El Lago, Tex., was born in Glen Ridge, N. J., Jan 20, 1930. He is the son of Col. and Mrs. Edwin E. Aldrin (USAF retired), 180 Walnut, Montclair, N. J., currently living at their summer home, 38 First Avenue, Manasquan, N. J. He completed his secondary education at Montclair High School.

Aldrin was graduated third in a class of 475 from the United States Military Academy at West Point, N. Y., in 1951 with a bachelor of science degree, transferred to the Air Force, and

EDWIN E. ALDRIN JR.
Major, USAF

received a doctor of science degree in astronautics from the Massachusetts Institute of Technology at Cambridge, Mass., in 1963. His thesis concerned manned orbital rendezvous.

Aldrin is five-feet 10-inches tall, weighs 165 pounds, and has blond hair and blue eyes. He is married to the former Joan Ann Archer, daughter of Mr. and Mrs. Michael Archer, 50 Edgewood, Ho-Ho-Kus, N. J. The Aldrins have three children: James M. 8, Janice Ross 6, and Andrew John 5.

Prior to his appointment as an astronaut, Aldrin's last assignment with the Air Force was with the Space Systems Division's Field Office at Manned Spacecraft Center in Houston where he was doing work concerning integrating Department of Defense experiments in the Gemini-Titan II flights. Before that, he served as an engineer in the Gemini Target Division of Space Systems Division with work centered around a study effort performed by Lockheed Aircraft Corporation concerning the maneuver capabilities of the Agena target. He has amassed more than 2,500 hours flying time, including more than 2,200 hours in jet aircraft. On duty in Korea, he was credited with two enemy fighter kills.

Aldrin is a member of the American Institute of Aeronautics and Astronautics; Sigma Gamma Tau, aeronautical engineering society; Tau Betta Pi, national engineering society; and Sigma Xi, national science research society.

William A. Anders

Capt. William A. Anders, who observed his 30th birthday recently, was born in Hong Kong, where his father was based on military duty, Oct. 17, 1933. He lives at 10420 Princess Jeanne NE, Albuquerque, N. M. He is the son of Cmdr. and Mrs. Arthur F. Anders (USN retired), 4602 Resmar Dr., La Mesa, Calif.

Anders was graduated from the U. S. Naval Academy at Annapolis, Md., in 1955 with a bachelor of science degree. On graduation, he was commissioned in the Air Force. He received a master of science degree from the Air

WILLIAM A. ANDERS
Captain, USAF

Force Institute of Technology at Wright-Patterson AFB, Ohio. He has done additional graduate work at Ohio State University.

He is five-feet eight-inches tall, weighs 150 pounds, and has brown hair and blue eyes. Anders is married to the former Valerie Elizabeth Hoard, daughter of Mr. and Mrs. Henry G. Hoard, 2481 Bonita, Lemon Grove, Calif. The Anders have four children: Alan Frank 6, Glen Thomas 5, Gayle Alison 3, and Gregory Michael 1.

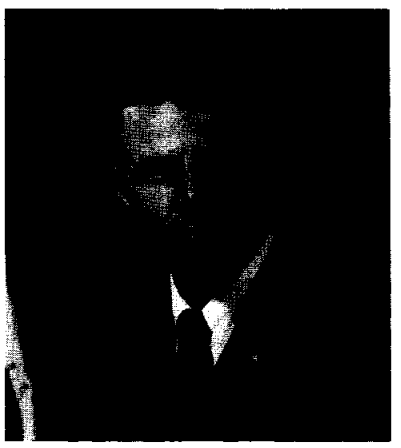
His last assignment was as a nuclear engineer - instructor pilot at the Air Force Weapons Laboratory, Kirtland AFB, N. M. He had technical management responsibility for space and space reactor radiation shielding and radiation effects program.

Anders has logged more than 1,800 hours flying time, including almost 1,600 hours in jet aircraft. He is a member of Tau Beta Pi, national engineering society; and the American Nuclear Society.

Charles A. Bassett II

Capt. Charles A. Bassett II, who lives at 6848 Lindbergh, Edwards, Calif., was born in Dayton, Ohio, Dec. 30, 1931. His mother, Mrs. Belle James Bassett, lives at 4419 Groveland, Royal Oaks, Mich. He received his secondary education at Bera, Ohio.

Bassett attended Ohio State University from 1950 to 1952, and Texas Technological College, Lubbock, Tex., from 1958 to 1960. He received a bachelor of



CHARLES A. BASSETT II
Captain, USAF

science degree in electrical engineering with high honors from Texas Tech. Since that time he has done graduate work at the University of Southern California. He entered the Air Force in October 1952.

Bassett is five-feet 9-1/2-inches tall, weighs 160 pounds and has brown hair and brown eyes. He is married to the former Jean Marion Martin, daughter of Mr. and Mrs. Wiley O. Martin of Hesperia, Calif. The Bassetts have two children: Karen Elizabeth 6, and Peter Martin 2.

His last Air Force Assignment was as experimental test pilot and engineering test pilot in the Fighter Projects Office at Edwards AFB, Calif. Bassett is a graduate of the Aerospace Research Pilot School and the Air Force Experimental Test Pilot Course.

He has logged almost 2,800 hours flying time, with almost 2,100 hours in jet aircraft included. He is a member of the American Institute of Aeronautics and Phi Kappa Tau.

Alan L. Bean

Lt. Alan L. Bean, 4371 Water Oak Lane, Jacksonville, Fla., was born in Wheeler, Tex., March 15, 1932. His parents, Mr. and Mrs. Arnold H. Bean, live at 3100 Bellaire Drive West, Fort Worth, Tex.

Bean received his high school diploma from Paschal High School in Fort Worth in 1950 and a bach-

ALAN L. BEAN
Lieutenant, USN

elor of science degree in Aeronautical Engineering from the University of Texas in 1955 and was commissioned in the Navy.

He is five-feet 9-1/2-inches tall, weighs 150 pounds, and has brown hair and hazel eyes. His wife is the former Sue Ragsdale, daughter of Mr. and Mrs. Edward B. Ragsdale, 6914 Hyde Park Drive, Dallas, Tex. The Beans have two children: Clay Arnold 7, and Amy Sue born this year.

Bean's last Navy assignment was with Attack Squadron 44 at Cecil Field, Fla., as an A-4 attack replacement pilot. He was graduated from the Navy Test Pilot School at Patuxent and served as project officer on various aircraft for Navy preliminary evaluation, initial trials, and final board of inspection and survey trials at Patuxent from 1960 to 1963. He also attended the School of Aviation Safety at the University of Southern California.

He has more than 2,000 hours flying time, including about 1,800 in jet aircraf†

Eugene A. Cernan

Lt. Eugene A. Cernan, 1410 Via Marettimo Way, Monterey, Calif., was born in Chicago, Ill., March 14, 1934. His parents, Mr. and Mrs. Andrew G. Cernan, reside at 939 Marshall, Bellwood, Ill. He received his high school diploma from Proviso Township High School at Maywood, Ill.

Cernan attended Purdue University at West Lafayette, Ind., and was graduated in 1956 with a bachelor of science degree in electrical engineering. He entered the Navy the same year. Since 1961 he has been a student at the U. S. Naval Post Graduate School at Monterey and is currently a candidate for a master of science degree in aeronautical engineer-

The Spotlight On MSC Secretaries....

The four personable and attractive MSC secretaries profiled in this issue of the Space News Roundup are:

Marilyn J. Norling, right, secretary to D.R. Hendrickson, chief, Office of Administrative Services, is a native of the Houston area and has been with MSC for more than one year.

Born in Pasadena, Marilyn was graduated from Missouri High School in 1961 and attended the Prudential Business College in Houston for one year. Before coming to NASA, she was employed by Army Recruiting, Main Station, and previously by a local insurance company.

A bride of five months, Marilyn met her husband, Donald K. Norling, while at NASA. He is presently assigned to the Spacecraft Technology Division. Marilyn's favorite pastimes are, in order of preference, bicycle riding, square dancing, and "crabbing with my husband."

Billie M. Barmore, top left, secretary in the LEM section of the Apollo Spacecraft Project Office, was born in Wichita Falls, Tex. but received her elementary and secondary education in Pasadena, Tex.

Employed with civil service for ten years, Billie's last assignment, before joining MSC, was as a secretary to the Air Training Command, Provost Marshall, Randolph Air Force Base, San Antonio, Tex. She also served three years in England during the time her husband, Edward W. Barmore was in the Air Force.

Billie attended the Southwestern Business University, in Houston, and has also taken extension courses while in England at Liverpool College. Billie is an active member in her lodge and while assigned at Randolph AFB was a charter member of the Toastmistress Club.

Mildred L. Wilkes, lower right, is secretary to Alfred D. Mardel, manager, and R. W. Lanzkron, assistant manager, Systems Integration Office, Apollo Spacecraft Project Office. Mildred joined MSC in 1961 as a secretary in the personnel office at Langley Air Force Base. She has been in her present position since February 1962.

A native of Chattanooga, Tenn., she attended Kirkman Business College in that city and later took extension courses at the University of Tennessee. For eight years she was employed as a secretary in the superintendents office for the Oakridge, Tenn. school system.

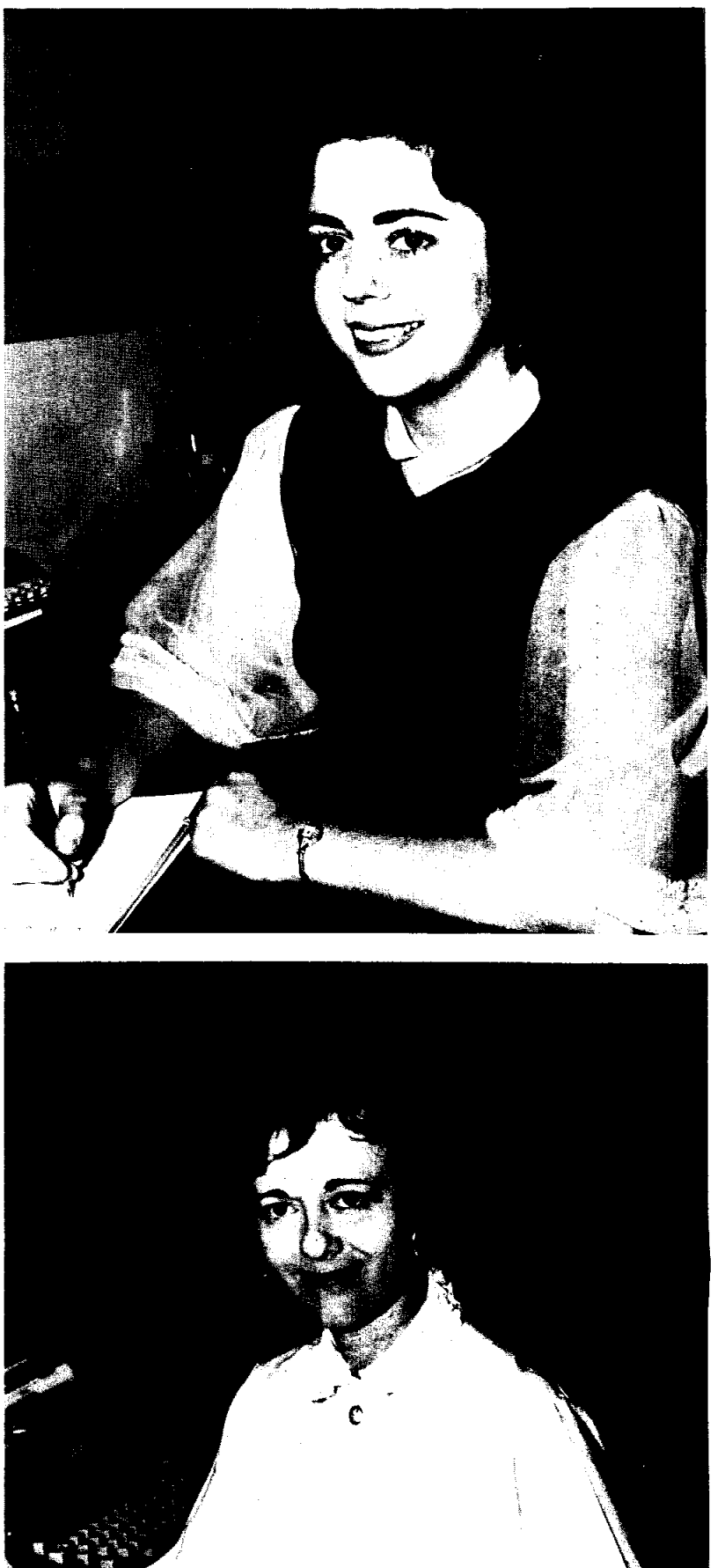
Mildred's husband, T. Marshall Wilkes is assigned to the Financial Management Division, Financial Program Analysis Office. The Wilkes have two sons, Marshall Jr., a student at Baylor University, and Richard, a Belair High School student.

Mildred enjoys cooking, reading, playing the piano and has been active for a number of years in the National Secretaries Association. She has served, in the past, as a member of the educational committee.

Judith Banks, lower left, secretary to A. D. Catterson, M.D., associate chief and Robert G. De Vine, executive assistant, Center Medical Operations Office, has been with MSC for one year. Judy was employed for four years at the Veterans Administration hospital in Houston where she gained a background as a medical secretary before assuming her present position.

A native of Monroe, La., Judy attended grade school in that city, but received her high school education at San Jacinto in Houston.

Judy is married to Richard Banks, who is employed by an oil company in Houston. Her favorite pastime is "spoiling" her nieces and nephews.



New Travel Policy Enrollment Deadline Extended To Nov. 1

The effective date of NASA's new Travel Accident Insurance Plan has been extended to Nov. 1, 1963, with this Friday being the deadline for enrollment.

More information may be obtained by calling Abner Askew, Ext. 7234.

MSC Tennis Club Meets Every Wednesday Evening

The MSC Employees Activities Association Tennis Club meets each Wednesday from 7 to 10 p.m. at MacGregor Park Tennis Courts it was announced by Dorothy Baker, tennis chairman.

Interested parties may call Dorothy at Ext. 7550.

New MSC Telephone Book Contains Up-To-Date Listings

You may or may not have received one, but the Manned Spacecraft Center has a new blue telephone directory.

A wealth of information in the first few pages of the book will assist you in making local and long distance calls and if these instructions and directions for placing calls were read and followed, we are sure the M S C telephone operators would appreciate the results.

The book contains a complete listing of all employees at the Center here in Houston.

MSC United Fund Collects $23,500 Drive Continues Through November 8

The United Fund drive for the Manned Spacecraft Center employees reached the two-thirds complete mark with $23,500 in cash and pledges turned in as of October 22.

This year's specified goal for MSC is $35,609 and the total Harris County goal is $6,501,106 and will be distributed to 67 agencies. The drive ends Nov. 8.

"We would like to achieve 100 per cent participation by MSC employees," Donald T. Gregory, NASA section chairman said, "but even more important we would like to go over our specified goal."

As of October 22, 11 of the 25 sections have reported 100 per cent participation. The sections and their team captains are as follows:

Program Analysis and Evaluation, Bill Wagoner; Management Analysis, Charles Bingman; Photographic, Tom Brahm; Facilities, Ed Campagna; Logistics, Bernice Slaughter; Technical Information, Charles Grant; Procurement, Kathryn Walker; Space Environment, W. I. Craig; Flight Operations, Henry Clements; Computation and Data Reduction, John Shoosmith; and Instrumentation and Electronic Systems, Harold Ferrese.

All MSC employees are urged to fill out their pledge cards and turn them in to their team captain. If you have not been contacted, call Donald Gregory at Ext. 5245.

Employees Association Board Schedules Variety Of Events

Members of the Employees Activities Association Executive Board met October 9 and items on the agenda included spacecraft jewelry, ashtrays and pecans for sale to MSC personnel, bridge, children's movie party, tennis league and the election of the new General Assembly and Executive Board.

F. Phoncille DeVore was authorized to purchase Mercury, Gemini and Apollo spacecraft jewelry and Doris Kreske will be in charge of sales and selecting representatives in various locations at MSC to assist in selling

The Board also ordered NASA anniversary ashtrays which will be sold to MSC employees by the Board members.

Arrangements have been made for the harvesting of pecans at the Clear Lake site by James Epperly. The pecans will be bagged and sold by Board members to MSC employees.

Mervin Hughes is in charge of arrangements for the bridge club. Harold McMann reported on a recent movie party for children and plans are being made for another movie party.

The forming of the MSC tennis league will be handled by Dorothy Baker. A budget was submitted and will be voted on at the next meeting.

General Assembly and Executive Board elections were discussed. Executive Board members can succeed themselves, but have to be elected as district representative members of the General Assembly and then elected by the General Assembly to the various offices.

The present Executive Board members are: Alfred J. Ligrani, president; Abner M. Askew, vice president; F. Phoncille De Vore, secretary and chairman of promotion committee; other chairmen are James W. Epperly, grounds and safety; Charles C. Nagle, social; James Church, activities; C. Ragan Edmiston, arts and crafts; and Harold J. McMann, children.

The Board meets each month and the next meeting is tentatively scheduled for November 6.

Mercury-Boeing Club Charity Bridge Play Scheduled Monday

The Mercury-Boeing bridge club will hold a special charity game, Monday, November 4, at the Patrick Officers Club. Play will start sharply at 7:15 p.m.

Participants will pay one-dollar. Coffee will be free and master points and trophies will be given. All proceeds will go to charity. Additional information may be received from Henri Kent at UL 3-4538.

NASA Hq. Team Conducts Evaluation Of MSC Personnel

A survey team from the Personnel Division of NASA Headquarters began an evaluation Monday of Manned Spacecraft Center's personnel management program.

The team is discussing personnel management with some management officials and line supervisors and a number of positions are being selected at random for site audit to determine the accuracy of position classification.

Local management officials have requested that full cooperation be given the visiting survey team.

LEAGUE CHAMPIONS—Two MSC softball team captains represented their teams and were presented championship trophies recently by Ragan Edmiston, chairman of the MSC Softball League. Receiving trophies are John B. Miles, left, Flight Operations Division, captain of the winning team in the fast pitch league and Robert W. Becker, right, Flight Operations Division, captain of the winning slow pitch team. Both leagues ended their season earlier this month.

MSC BOWLING ROUNDUP

MSC MIXED LEAGUE

Standings as of Oct. 22.

Team	Won	Lost
Alley Oops	21	7
Eight Balls	20	8
Celestials	20	8
Little Splits	17	11
Five Flushers	16	12
Hardley Ables	13½	14½
Aborts	13	15
Core Dumps	12½	15½
Snap Shots	12	16
Space Mates	12	16
Virginians	11	17
Gabs	11	17
Decigones	10	18
Pricers	7	21

High Game Women: M. Lewis 211. C. Barnes 207. 203.

High Game Men: Pavlosky 236. Petersen 220. Lawhorn 218.

High Series Women: C. Barnes 545. 543. 534.

High Series Men: Shumilak 600. Petersen599. 586.

High Team Game: Gabs 1073. Little Splits 1059. Celestials 1053.

High Team Series: Little Splits 3022. Alley Oops 3018. Little Splits 2954.

MSC MEN'S LEAGUE

Standings as of Oct. 17.

Team	Won	Lost
Lunar Lights	18	10
Turkeys	18	10
Cosmonats	18	10
Teenies	17	11
Whirlwinds	17	11
Asteroids	13	15
Pseudonauts	12	16
Fizzlers	11	17
Overshoots	9	19
Spasties	7	21

High Game: Joe Garino 266. Lew Lee. Paul Horsman. William Chase. 253.

High Series: Joe Garino 616. Pete Petersen 597.

High Team Game: Lunar Lights 912. 902.

High Team Series: Lunar Lights 2573. 2554.

PICNIC BIG SUCCESS—The first Center-wide picnic for employees and families of the Manned Spacecraft Center was termed a big success as over 2,500 people turned out for the affair October 12 in Galveston County Park. Above, volunteer servers l. to r. Rachel Hutchins, L.C. Pack and Bill Hodge fill up plates for the hungry crowd. Above right, Rena Harrison serves a plate of the delicious barbecue to Wesley Hjornevik.

PICNIC SPORTS—A fast game of volleyball is played by a group of the picnickers attending the MSC affair, October 12. Other games provided for the outing included softball, football and horseshoe pitching. Sack races and twist contests were also part of the afternoon activities with prizes for the winners.

...orce, Four Navy, One Marine, And Two Civilians

ing. Prior to his last assignment he was a member of Attack Squadrons 126 and 113 at Miramar, Calif., Naval Air Station.

EUGENE A. CERNAN
Lieutenant, USN

He is six feet tall, weighs 175 pounds, and has brown hair and blue eyes. He is married to the former Barbara Jean Atchley of Corpus Christi, Tex., whose mother, Mrs. Jackie Mae Atchley, lives at 112 John A. St., in Baytown, Tex. The Cernans have a daughter, Teresa Dawn, born this year.

Cernan has logged more than 1,400 hours flying time, including more than 1,200 hours in jet aircraft. He is a member of Tau Beta Pi, national engineering society.

Roger B. Chaffee

Lt. Roger B. Chaffee, 1960 Redstone Dr., Fairborn, Ohio, was born in Grand Rapids, Mich., Feb. 15, 1925. His parents, Mr. and Mrs. Donald L. Chaffee, live at 3710 Hazelwood SW, Grand Rapids, and he attended Central High School in that city.

Chaffee attended the Illinois Institute of Technology in Chicago, Ill., for one year, then transferred to Purdue University. He was graduated with a bachelor of science degree in aeronautical engineering in 1957, and entered the Navy in August that year. His last Navy assignment started in January 1963 as a student at the Air Force Institute of Technology at Wright-Patterson AFB, Ohio, where he is working toward a master of science degree in reliability engineering. Prior to entering AFIT, he was safety officer and quality control officer for Heavy Photographic Squadron 62 at the Jacksonville, Fla., Naval Air Station.

ROGER B. CHAFFEE
Lieutenant, USN

He is five-feet 9-1/2-inches tall, weighs 157 pounds, and has brown hair and brown eyes. Chaffee is married to the former Martha Louise Horn, whose parents, Mr. and Mrs. Henry W. Horn, live at 1801 Dorchester Pl., Oklahoma City, Okla. The Chaffees have two children: Sheryl Lyn 5, and Stephen Bruce 2.

Chaffee has logged nearly 1,700 hours flying time, including more than 1400 hours in jet aircraft. He is a member of Tau Beta Pi, national engineering society: Sigma Gamma Tau; and Phi Kappa Sigma.

Michael Collins

Capt. Michael Collins, 6766 Rickenbacker Dr., Edwards Calif., was born in Rome, Italy, Oct. 31, 1930, where his father, Maj. Gen James L. Collins (USA deceased), served as military attache. His mother, Mrs. James L. Collins, now resides at 2126 Connecticut Ave. NW, Washington, DC. He was graduated from Albans School in Washington in 1948.

MICHAEL COLLINS
Captain, USAF

Collins attended the United States Military Academy, was graduated in 1952 with a bachelor of science degree, and chose an Air Force career. His last assignment was as an experimental flight test officer at the Air Force Flight Test Center, Edwards AFB, Calif. In that capacity he tested performance and stability and control characteristics of Air Force aircraft, primarily jet fighters.

He is five-feet 10-1/2-inches tall, weighs 168 pounds, and has brown hair and brown eyes. Collins was married to the former Patricia Mary Finnegan of Boston, Mass., in Chambley, France in 1957 and they have three children: Kathleen 4, Ann Stewart 2, and Michael Lawton, born this year.

Collins has flown more than 3,000 hours, including more than 2,700 hours in jet aircraft. He is a member of the Society of Experimental Test Pilots.

R. Walter Cunningham

R. Walter Cunningham of 6640 Rubio Avenue, Van Nuys, Calif., was born in Creston, Iowa, March 16, 1932. His parents, Mr. and Mrs. Walter W. Cunningham, reside at 1022 Nowita Place, Venice, Calif., and he completed his secondary education at Venice High School.

He joined the Navy in January 1951 and went into flight training in July 1952. He joined a Marine squadron in 1953 and remains a Marine air reservist with the rank of captain, flying with VMA-134 at the Los Alamedos, Calif., Naval Air Station.

R. WALTER CUNNINGHAM
Research Scientist
Rand Corporation

Cunningham, one of the two civilians selected, has been a research scientist for Rand Corporation. In 1960, he received from the University of California at Los Angeles a bachelor of arts degree in physics with honors and a master of arts degree in physics in 1961. He is currently completing requirements for a doctorate in physics at UCLA.

While working for the Rand Corporation, he performed error analysis and feasibility studies of defense against submarine-launched ballistic missiles and problems of the earth's magnetosphere. His latest work at UCLA has concerned development, testing and analysis of results of a tri-axial search coil magnetometer which will be flown aboard the first NASA orbiting Geophysical Observatory satellite.

He is five-feet 10-inches tall, weighs 165 pounds, and has blond hair and blue eyes. Cunningham is married to the former Lo Ella Irby of Anaheim, Calif., whose mother, Mrs. Nellie Marie Maynard, lives at 2371 Ventura Boulevard, Oxnard, Calif.

Cunningham has logged almost 2,000 hours of flying time, including more than 1,350 hours in jet aircraft. He is a member of Sigma Pi Sigma, the American Geophysical Union, and Sigma Xi, national science research society.

Donn F. Eisele

Capt. Donn F. Eisele, 2059A Crossroads Pl., Kirtland AFB, N. M., was born in Columbus, Ohio, June 23, 1930. Mr. and Mrs. Herman E. Eisele, his parents, live at 248 N. Murray Hill Rd., in Columbus, and Eisele attended West Senior High School there.

He attended the United States Naval Academy and received a bachelor of science degree in 1952, and chose an Air Force career. In 1960, he received a master of science degree in astronautics from the Air Force Institute of Technology at Wright-Patterson AFB, Ohio.

DONN F. EISELE
Captain, USAF

Eisele is five-feet nine-inches tall, weighs 150 pounds, and has brown hair and blue eyes. He is married to the former Harriet Elaine Hamilton of Gnaddenhutten, Ohio. Her parents, Mr. and Mrs. Harry D. Hamilton live at 156 Moravian Ave. SW in that community. The Eiseles have three children: Melinda Sue 9, Donn Hamilton 7, and Matthew Reed 2.

His last Air Force assignment before being named an astronaut was as flight commander and experimental test pilot at the Air Force Special Weapons Center at Kirtland AFB. In this capacity he flew experimental and developmental test flights in jet aircraft in support of special weapons development programs.

He has amassed more than 2,500 hours flying time, with more than 2,100 hours in jet aircraft. Eisele is a member of Tau Beta Pi, national engineering society.

(Continued on page 7)

Old And New, This Is How They Compare

Where do America's latest astronauts come from? How do they compare with the Project Mercury astronauts selected in 1962?

Some of the answers follow.

The new astronauts were born in nine states, Italy and Hong Kong. Texas, Ohio and New Jersey are states in which two of the group were born and Illinois. Michigan, Iowa, Washington, Alabama and Pennsylvania furnished one each. The fathers of the two born outside the United States were on foreign military duty at the time of their birth.

The astronauts selected in 1959 were born in Colorado, Oklahoma, Ohio, Indiana, New Jersey, New Hampshire and Wisconsin; and the group named in September 1962 included two born in Ohio, two in Texas and one from California, Pennsylvania, Indiana, Illinois, and Oklahoma.

The astronauts assigned to NASA's Manned Spacecraft Center were born in 15 states and two foreign countries with the state of Ohio providing five; Texas, four; New Jersey, three; Illinois, Pennsylvania, Oklahoma, and Indiana, two; and one each from Colorado, New Hampshire, Wisconsin, California, Michigan, Iowa, Washington, and Alabama.

Average age of the new group is 31. Those selected last year had an average age of 32.5 and the average age of the Mercury astronauts was 34.5 at time of selection. The average weight of the new group is 162 pounds, heavier than the average weight of the 1959 selectees, 159 pounds; and those selected last year, 161.5 pounds.

Although the latter two groups were permitted to be taller (six feet or less) than the first group (five-feet 10-inches or less), the average height of the three groups is remarkably close. The 1959 group's average height was 69.79 inches; the 1962 group, 69.94 inches; and the 1963 group, 70.1 inches.

There has been a natural decline in the total number of flying hours logged by the respective groups due to the fact that they have been successively younger.

However, the average jet time logged by the three groups has been about the same. The 1959 pilots had

(Continued on page 7)

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Editor ..... Milton E. Reim

On The Lighter Side

The Case For Uncommon Words

A journalism professor, at an eastern university, has warned newspapers against big words. He says the papers are endangering their future by using terms that people don't understand. This builds up a resentment (ill-feeling) that may cause readers to turn to the radio or television for their news, he argues.

To substantiate (prove) his charge, the professor cited an experiment (test) in which he asked students to choose synonyms (words of like meaning) for 25 words taken from newspapers. Male college students made an average of 11.5 mistakes out of 25 words.

The test words included such rare specimens (examples) as "shibboleth" (watchword); "peripheral" (edging); "baksheesh" (tip); "purlieus" (neighborhood).

Now, we are fully as antagonistic to obfusticated polysyllabicity as the antilapsus calami professor. Still there are times when an uncommon word conveys (carries) exactly the desired meaning. In such cases it seems better to use it and assume that dictionaries have not gone entirely out of fashion.

Unless we all add something to our vocabularies every now and then, our stock of words might degenerate (sink) to a series of primitive grunts with which not even a radio announcer could make himself understood.

Proposals Asked For Moving MSC To Clear Lake Site

NASA Manned Spacecraft Center contracting officials have requested proposals for hauling and crating services for the Center's various locations.

The proposed contract will cover MSC's major move during February and March 1964 from temporary quarters in Houston to the new permanent site at Clear Lake. It will also cover services between the Clear Lake site, Ellington AFB and the leased temporary facilities.

The industry proposals are to be submitted in two parts. Part one covers the daily hauling of office equipment, scientific apparatus, supplies and materials and Part two will cover the major move.

At the time of the major move, it is estimated that nearly 13,000,000 pounds of equipment, machinery, tools, furniture, supplies and materials will be transported into Clear Lake and to Ellington AFB.

The proposal calls for a fixed-price type of contract and was initiated by MSC's Logistics Division. It will remain in operation for 12 months beginning after Dec. 10, 1963.

Gray To Direct Manned Space Flight Studies

The National Aeronautics and Space Administration announced the appointment, October 14, of Edward Z. Gray as director of Advanced Studies, Office of Manned Space Flight.

Gray will be responsible for planning and directing studies for possible future manned space flight projects. Studies currently underway include manned orbital laboratories, planetary missions, lunar base, future launch vehicles and engineering systems in support of manned space flight.

He reports to the Deputy Director, OMSF (Systems), the post held by Dr. Joseph F. Shea prior to his appointment recently as program manager, Apollo Spacecraft here at the Manned Spacecraft Center.

George M. Low is currently acting deputy director (Systems) in addition to his duties as deputy director (Programs) OMSF.

Gray succeeds Dr. William A. Lee who has headed the OMSF advanced study effort since early in 1962. Dr. Lee is joining the Apollo Spacecraft Program Office, here.

Before joining NASA Gray was associated with the Boeing Aircraft Co., Seattle, Wash. for 24 years.

WELCOME ABOARD

New employees to join MSC between the period of September 9 and October 15 totaled 65. All but seven were assigned in Houston.

SYSTEMS EVALUATION AND DEVELOPMENT DIVISION: Julian W. Jones Jr., Lyle L. Wolz, Daniel K. Christemberry, Mattison G. Brown, Jack J. Barneburg, and Charles H. Eldred.

PREFLIGHT OPERATIONS DIVISION (Cape Canaveral, Fla.): Paul D. Knerr, Gary K. Fritz, and James K. Legg.

WHITE SANDS MISSILE RANGE OPERATIONS (White Sands, N. M.): Olga M. Lundgren, and Lorna J. Miller.

SPACECRAFT TECHNOLOGY DIVISION: Jerrold H. Suddath, John W. Kraemer, and Freddie L. Thompson.

ENGINEERING AND DEVELOPMENT OFFICE: Roberta C. King.

FINANCIAL MANAGEMENT DIVISION: Roy E. Walling, Marvale Y. Stark, Harold A. Odom Jr., Everett E. Dunn, and Mary A. Anderson.

INSTRUMENTATION AND ELECTRONIC SYSTEMS DIVISION: Herbert E. Rihn, Arturo B. Campos, William G. Jenkins, Nell E. Daniels, Edward J. Stelly, Michael B. Luse, and Joan M. Hayes.

GEMINI PROJECT OFFICE: M. Caroline Kirkpatrick.

CENTER MEDICAL OPERATIONS: Capt. Samuel C. Puma.

MSC OPERATIONS SUPPORT OFFICE (Cape Canaveral, Fla.): Ronald A. Lynch.

FLIGHT OPERATIONS DIVISION: Richard O. Nobles, James D. Watkins, Thomas J. Linbeck, Frances M. Gentry, and Janet F. Antrim.

PROGRAM ANALYSIS AND EVALUATION OFFICE: Neil W. Hornor, and Wayne L. Draper.

CREW SYSTEMS DIVISION: Paul D. Soete, Paul A. Lachance, and Lofton Kennedy.

SECURITY DIVISION: James H. Clay.

MANAGEMENT ANALYSIS DIVISION: Arquialla Cartwright, and David R. Whipple Jr.

PERSONNEL DIVISION: Robert F. Hall, Charles W. Dotson, Donna L. Sanders, Carolyn A. Ward, Martha J. Stewart, Adeline L. Jordan, and Aileen M. Roane.

FLIGHT CREW OPERATIONS DIVISION: David E. Evans, and Richard M. Kenney.

PROCUREMENT AND CONTRACTS DIVISION: Louis W. Hamil, and Theodore R. Johnson.

ENGINEERING DIVISION: Edwin Samfield.

APOLLO SPACECRAFT PROJECT OFFICE: Raymond M. Hall, Dwight L. Suiter, and Jack A. Davison (Downey, Calif.)

ASTRONAUT ACTIVITIES OFFICE: Ernestine R. Wade.

GROUND SYSTEMS PROJECT OFFICE: James P. Little, and Vera C. Thomas.

SPACE ENVIRONMENT DIVISION: John D. Pierson.

RELIABILITY AND DATA REDUCTION DIVISION: Joel E. Wakeland, and Bennie W. Barrett.

MSC PERSONALITY

Managing MSC 'Outpost' Job Of Wesley E. Messing

Our personality for this issue of the Roundup is Wesley E. Messing, manager of the NASA Manned Spacecraft Center--White Sands Missile Range Operations (MSC-WSMR) in New Mexico.

As MSC-WSMR manager, Messing is in charge of land area of about 87 square miles located within the U. S. Army missile testing range. Under his supervision are 93 permanent MSC personnel.

WESLEY E. MESSING

One of the functions of this group under Messing is to provide all base support for North American Aviation and Grumman Aircraft who have the contracts for Apollo and the Lunar Excursion Module (LEM) and are located at MSC-WSMR doing development work.

In July of 1962 he was named acting manager of MSC-WSMR which opened operations for the conduct of flight and ground testing of some of the major systems of the Apollo spacecraft and the LEM.

He was named permanent resident manager of the MSC-WSMR in November 1962 and moved his family there from Houston.

Messing is a native of West Hoboken, N. J. and attended Teaneck High School in New Jersey. He received a BS degree in mechanical engineering from the University of Cincinnati in 1943.

He then joined NASA (then NACA) at the Lewis Research Center and specialized in various ramjet programs. He remained at Lewis until leaving for private industry in 1954.

In 1958 he returned to NASA at the NASA Flight Research Center, Edwards AFB, Calif. and was named assistant head of the Flight Mechanics Branch and was appointed as an associate research project engineer on the X-15 program.

Messing transferred to MSC in February of 1962 as head of the Thermochemical Test Section and in July was named to the managers job at MSC-WSMR.

The first Little Joe II test was conducted at the missile range this past August 28 and the next test is tentatively scheduled for November, Messing reported. The next test will be a pad abort test of boilerplate six of the Apollo command module.

Messing is the author or co-author of a dozen technical reports and is an associate fellow of the American Institute of Aeronautics and Astronautics.

He and his wife, the former Adele Gosiger of Cincinnati, Ohio, reside at 101 Twin Cities Ave., Officers Housing Quarters at WSMR. The couple has four children, John 16, Janet 15, Steven 2 and a married daughter Margaret 20 (now Mrs. Robert E. Strzelewicz of Oxford, Mass).

They are the only non-Army family living on the entire post. Messing said that he and his family love the area of southern New Mexico and also the climate. (The other NASA personnel connected with MSC-WSMR live in either Las Cruces or El Paso.)

Messing said he had taken up golf since he has been at MSC-WSMR and with hunting and fishing being so great in this area, he plans to take advantage of his liking for these two sports.

Newest

(Continued from page 5)

Theodore C. Freeman

Capt. Theodore C. Freeman, 6757 Rickenbacker Dr., Edwards, Calif., was born in Haverford, Penn., Feb. 18, 1930. His parents, Mr. and Mrs. John Freeman, live near Lewes, Del., where Freeman completed his secondary education in 1948.

He attended the University of Delaware at Newark for one year, then entered the United States Naval Academy and was graduated in

THEODORE C. FREEMAN
Captain, USAF

1953 with a bachelor of science degree. He elected to serve with the Air Force. In 1960, he received a master of science degree in aeronautical engineering from the University of Michigan.

Freeman is five-feet 10-1/2-inches tall, weighs 139 pounds, and has brown hair and brown eyes. He is married to the former Faith Dudley Clark, whose parents, Mr. and Mrs. Walter E. Clark Jr., live on Grassy Hill Rd., Orange, Conn. They have a daughter, Faith Huntington 9.

His last Air Force assignment was as flight test aeronautical engineer and experimental flight test instructor at the Air Force's Aerospace Research Pilot School at Edwards AFB, Calif. He served primarily in performance flight testing and stability testing areas.

He has logged more than 3,000 hours flying time, including more than 2,000 hours in jet aircraft. Freeman is a member of the American Institute of Aeronautics and Astronautics.

Richard F. Gordon Jr.

Lt. Cmdr. Richard F. Gordon Jr., 1106 Spruance Rd., Monterey, Calif., was born in Seattle, Wash., Oct. 5, 1929. Mrs. Richard F. Gordon, his mother, lives at 7336 17th St. NE in that city. He completed his secondary education at North Kitsap High School, Poulsbo, Wash.

Gordon received a bachelor of science degree in chemistry from the University of Washington in 1951, and entered the Navy in

RICHARD F. GORDON JR.
Lt. Comdr., USN

August that year. At the time of his selection as an astronaut he was a student at the U.S. Naval Post Graduate School at Monterey. Gordon is a graduate of the All-Weather Flight School and the Navy's Test Pilot School. Prior to entering the Monterey school, he was assigned to Fighter Squadron 96 at the Miramar, Calif., Naval Air Station, where he had served as flight safety officer, assistant operations officer and ground training officer.

He is five-feet seven-inches tall, weighs 150 pounds, and has brown hair and hazel eyes. He is married to the former Barbara Jean Field of Seattle, Wash., whose parents, Mr. and Mrs. Chester W. Field, live near Freeland, Wash. The Gordons have six children: Carlee Elizabeth 9, Richard F. III 8, Lawrence Joseph 6, Thomas Alan 4, James Edward 3, and Diane Marie 2.

He has logged nearly 2,800 hours flying time, with almost 2,000 hours in jet aircraft. Gordon won the Bendix Trophy Race from Los Angeles to New York in 1961.

Russell L. Schweickart

Russell L. Schweickart, who observed his 28th birthday last Friday, was born in Neptune, N. J., Oct. 25, 1935. He now lives at 4 Third St., Lexington, Mass. Mr. and Mrs. George L. Schweickart, his parents, live at 6 Eighth Ave., Seagirt, N. J.

After receiving his secondary education at Manasquan (NJ) High School, he attended Massachusetts Institute of Technology where he received a bachelor of science degree in aeronautical engineering in 1956 and a master of science degree in aeronautics and astronautics in 1963. His thesis was on stratospheric radiance.

Schweickart entered the Air Force in 1956 and became a pilot. He went on inactive duty in 1960, returned to MIT, but was called up for another year

RUSSELL L. SCHWEICKART
Research Scientist, MIT

of active duty in the Fall of 1961. He holds the rank of captain in the Massachusetts Air National Guard.

He is six feet tall, weighs 158 pounds, and has red hair and blue eyes. He is married to the former Clare Grantham Whitfield, whose parents, Mr. and Mrs. Randolph Whitfield, live at 2540 Dellwood Dr. NW. Atlanta, Ga. The Schweickarts have two daughters: Vicki Louise 4, and Elin Ashley 2, and twin sons, Russell Brown and Randolph Barton 3.

Prior to his selection as an astronaut he was a research scientist at the Experimental Astronomy Laboratory at MIT. Schweickart's duties there included research in upper atmospheric physics and applied astronomy as well as research in star tracking and stabilization of stellar images. He has logged more than 1,250 hours flying time, including almost 1,100 hours in jet aircraft.

David R. Scott

Capt. David R. Scott, 107 16th St., Edwards, Calif., was born in San Antonio, Tex., June 6, 1932. His parents, Brig. Gen. and Mrs. Tom W. Scott (USAF retired), now live at 8438 Paseo Del Ocaso, La Jolla, Calif.

He attended the University of Michigan for one year, then entered the United States Military Academy and received a bachelor of

DAVID R. SCOTT
Captain, USAF

science degree in 1954. At West Point, he finished fifth in a class of 633, and chose an Air Force career.

He attended Massachusetts Institute of Technology from 1960 to 1962 and earned both a master of science degree in aeronautics and astronautics and an engineer of aeronautics and astronautics degree while there. His thesis concerned interplanetary navigation. At the time of his selection for the astronaut program, he was a student at the Air Force Aerospace Research Pilot School at Edwards AFB, Calif.

Scott is six feet tall, weighs 190 pounds, and has blond hair and blue eyes. He is married to the former Ann Lurton Ott, daughter of Brig. Gen. and Mrs. Isaac W. Ott (USAF retired), who live at 115 Lagos Ave., San Antonio, Tex. The Scotts have two children: a daughter, Tracy Lee 2, and a son, William Douglas, born this year.

He has logged more than 2,300 hours flying time, including nearly 2,100 hours in jet aircraft. Scott is a member of Tau Beta Pi, national engineering society; Sigma Xi, national science research society; Sigma Gamma Tau, and Sigma Chi.

Clifton C. Williams Jr.

Capt. Clifton C. Williams Jr., stationed at Quantico, Va., was born in Mobile, Ala., Sept. 26, 1932. He is the son of Mr. and Mrs. Clifton C. Williams who reside at 115 Mohawk St., Mobile, and he attended Murphy High School there.

Williams attended Spring Hill College from 1949 to 1951, then transferred to Auburn University where he completed his college work and was graduated in 1954 with a bachelor of mechanical engineering degree. He entered the Marines in August 1954. Williams is a graduate of the Navy Test Pilot School at Patuxent, Md., and is currently a student at the Marine Corps Intermediate Staff and Command School at Quantico.

He is six feet tall, weighs 187 pounds, and has brown hair and brown eyes. Williams is the only single astronaut selected for the NASA programs to date.

Prior to his assignment to the Marine School, he served at Patuxent as the F-8 project officer, A-4 project officer, and short airfield tactical support officer.

Williams has logged more than 1,800 hours flying time, including more than 1,300 hours in jet aircraft.

Compare

(Continued from page 5)

an average of more than 3,500 hours flying time, with 1,700 in jet aircraft; the 1962 selectees had average flying time of 2,800 hours, including 1,900 in jets; and the new group has logged an average of more than 2,300 with 1,800 in jet aircraft.

The importance of formal education is stressed, too, in comparative figures. In the new group, three of the seven with only bachelor's degrees are working toward master's degrees; six have received master's degrees, one of whom is working on a doctorate; and another had received his doctor of science degree. Six of those in the 1962 group have bachelor's degrees and the other three master's degrees. The first astronauts had an average of 4.3 years formal college training, the 1962 group, 4.6 years; and the 1963 selectees, 5.6 years.

What part, if any, do genetics play in astronaut selection? Personnel records indicate that a man with brown hair and blue eyes may have an advantage in being selected as an astronaut. There are 19 of the 30 with brown hair, seven blonds, two redheads, and one each with auburn and black hair. Sixteen of the group have blue eyes; eight brown; three, green; and three, hazel.

And carrying it a bit further, March seems to be the best month to be born if you want to be an astronaut. This is the only month in which astronauts from all three groups have birthdays (birth anniversaries if you prefer).

Three of the original seven, two of the second group, and three of the new group were born in March, for a total of eight.

Every month is represented with June, September and October each containing four astronaut birthdays, February and July two each, and the remaining six months containing one each.

CLIFTON C. WILLIAMS JR.
Captain, USMC

He is a member of Sigma Chi, national engineering society; and an associate member of the Society of Experimental Test Pilots.

Space News NASA ROUNDUP!

SECOND FRONT PAGE

Special Congress Being Held Here For Science Students

A Science Congress for 25 outstanding secondary school students, jointly sponsored by NASA and the National Science Teachers Association, begins here today with students from a five state area participating.

During the three-day congress the select group of students in space sciences will meet and discuss their scientific interests with NASA's practicing scientists and engineers.

Registration will be held from 4 to 6 p.m. today with a dinner at 7 tonight at Rice Institute. The welcoming address will be delivered by Christopher C. Kraft Jr., chief, Flight Operations Division, Manned Spacecraft Center.

The five states represented by the students are Texas, Oklahoma, Arkansas, Missouri and Kansas.

Sessions will be held tomorrow and Friday from 8 a.m. to 12 noon and 8 to 10 p.m. tomorrow so that each student may read, and discussion may be held on, a paper they have written on some research project performed by them.

On the basis of these papers, judges will select three of the students to participate later in the National Science Congress in Washington, D. C.

The group of students will hear addresses by MSC officials at lunch and dinner meetings tomorrow and Friday and the Science Congress will be concluded with the announcement of the winners at a dinner Friday evening at the Rice Hotel.

Ben Gillespie Heads News Bureau After PAO Reorganization

A recent reorganization in the Public Affairs Office has established a new branch entitled the News Bureau, it was announced by Paul Haney, Public Affairs officer.

The News Bureau will have as its chief, Ben Gillespie, and is made up of a consolidation of the News Media Communications, Industrial Communications and the Internal Communications Branches. These latter PAO branches are abolished, along with the Administration and Historical Branches.

Other changes included redesignating the Community Relations Branch as the Educational Program and Services Branch, the function of the Administration Branch was changed to a staff activity and responsibility assigned to the executive assistant to the Public Affairs officer, and the function of the Historical Branch was changed to a staff activity with the personnel assigned to the office of the Public Affairs officer.

Jesse C. Jones Is Named To Head Pyrotechnic Section

A recent reorganization in the Energy Systems Branch, Systems Evaluation and Development Division, has established a Pyrotechnic Section with Jesse C. Jones as acting section head, it was announced by Maxime A. Faget, assistant director for Engineering and Development.

The new Pyrotechnic Section will serve in an advisory capacity to the various project groups and other users of pyrotechnic and explosive devices within the Manned Spacecraft Center.

The section will also assess future program requirements and apply advanced science and technology to the development of optimum devices to insure the use of state-of-the art systems.

Another service to be performed by the section will be aiding the project groups in the technical direction and control of private contractors developing pyrotechnic components and systems for use in spacecraft.

The former Reaction and Pyrotechnic Systems Section is changed to the Auxiliary Propulsion Section.

Other changes in the Energy Systems Branch announced by Faget included the reorganization of the Energy Systems Section into two sections. They are the Thermodynamic Power Section with William R. Dusenbury appointed section head and the Direct Conversion Power Section with Richard B. Ferguson serving as acting head.

Major Slayton Submits AF Resignation May Get To Go On Space Missions

Maj. Donald K. (Deke) Slayton, chief of the astronauts office, recently submitted his resignation to the Air Force in order to take a more active role as a civilian astronaut.

Slayton will continue in his present position as a civilian astronaut. Dr. Charles A. Berry, chief, Center Medical Operations said he may be allowed to take part in space missions as long as he is accompanied by another astronaut.

This means that he will be qualified to go on missions both in the two-man Gemini spacecraft and in the three-man Apollo lunar spacecraft.

SUBMITS AF RESIGNATION—Maj. Donald K. (Deke) Slayton, chief of the astronauts office at MSC, submitted his resignation to the Air Force recently in order to take a more active role as a civilian astronaut. Slayton (left) is shown as he talked to reporters. Looking on is Dr. Charles A. Berry, chief, Center Medical Operations Office.

The resignation was submitted by mail on October 11 with the request that it take effect November 20.

A spokesman for the Department of Defense in Washington released this statement:

"The Air Force liaison officer at Headquarters NASA has received a letter of resignation from Maj. Donald K. Slayton. This letter will be forwarded to headquarters, USAF, for consideration when a report of medical examination is received as required by Air Force regulations."

Slayton mailed his physical examination report to Washington on October 17.

An orbital flight scheduled for Slayton in May, 1962 was cancelled because of a slight heart irregularity in the astronaut. As a result he was the only one of the seven original Mercury astronauts unable to make a space flight.

Slayton said he felt he would be able to take a more valuable role in the space program as a civilian since he deals with both civilian and military astronauts in his role as chief of the astronaut office.

Air Drop Of Apollo Spacecraft Boilerplate Demonstrates Low Altitude Abort Conditions

A full-scale unmanned boilerplate model of the Apollo spacecraft was recovered successfully last week at El Centro, Calif., after air drop designed to demonstrate the parachute system operation under low altitude abort conditions.

Conducted at the joint U. S. Naval-Air Force Parachute Facility, this was the 8th test of the 3 parachute cluster Apollo landing system developed by the Ventura Division of Northrop for the Apollo principal contractor North American Aviation Space and Information Systems Division and the National Aeronautics and Space Administration.

In the test the Apollo boilerplate command module was dropped from an Air Force C-133 transport flying at 13,000 feet. A brake chute deployed by a static line, inverted and stabilized the vehicle in a apex forward attitude.

After the brake chute disconnected, the main landing system sequence was initiated. This included a mortar deployment of a drogue parachute to stabilize the vehicle in its proper descent position. A subsequent mortar deployment of three pilot chutes which extracted the three main ring sail parachutes which lower the vehicle at approximately 25 feet per second to impact.

Officials viewing the test said all systems appeared to function normally.

Dr. Roman Feels That Other Planet Life Probably Exists

Dr. Nancy Roman, chief of astronomy and solar physics for the National Aeronautics and Space Administration said recently in Houston that it is highly probable that life will be found on planets around other stars in space.

At a reception given in her honor, Dr. Roman said, "I feel that an intelligent form of life will be found."

She was here to address the inaugural luncheon of the Houston chapter of the Achievement Rewards for College Scientists. ARCS was founded in Los Angeles to provide scholarships for science students. The second chapter in the U. S. was formed recently here in Houston.

"It seems almost certain that life that can reproduce itself will be found on planets around other stars," she said.

Dr. Roman is presently engaged in work with a satellite that is expected to be launched into space in 1965 and is called the Orbiting Astronomical Observatory.

She explained that the satellite will be instrumented to detect ultraviolet light which will enable scientists to determine the physical characteristics of stars and planets.

"It is quite probable. I would not be surprised if we find new star systems," she said. "The main reason for this belief is that whenever we have explored new fields of science we make new discoveries, and I do not think that this one will be any different."

Dr. Roman said that the orbiting observatories will be used to map the stars and planets in space.