

MSC Personnel Prepare For MA-6 Flight



ASTRONAUT JOHN H. GLENN, JR. looks to the future in the Aeromedical Laboratory, located in Hangar S at Cape Canaveral, as he continues his training program for the MA-6 mission.

Glenn and Carpenter Continue Intensive Training Program

Preparations for the scheduled Mercury-Atlas 6 manned orbital flight are continuing at Cape Canaveral following a delay caused by technical problems detected during pre-launch checkout.

MSC scientists and engineers of the Pre-Flight Operations Division, under the direction of G. Merritt Preston, are working closely with industrial teams from McDonnell Aircraft Corporation and General Dynamics Astronautics; personnel from Flight Operations Division and other MSC personnel are engaged in full-scale simulated missions at the Mercury Control Center; Astronauts John H. Glenn, Jr., and M. Scott Carpenter continue their intensive pre-flight training; and a large group of personnel are scattered over the world to far-flung sites to man the Mercury Network.

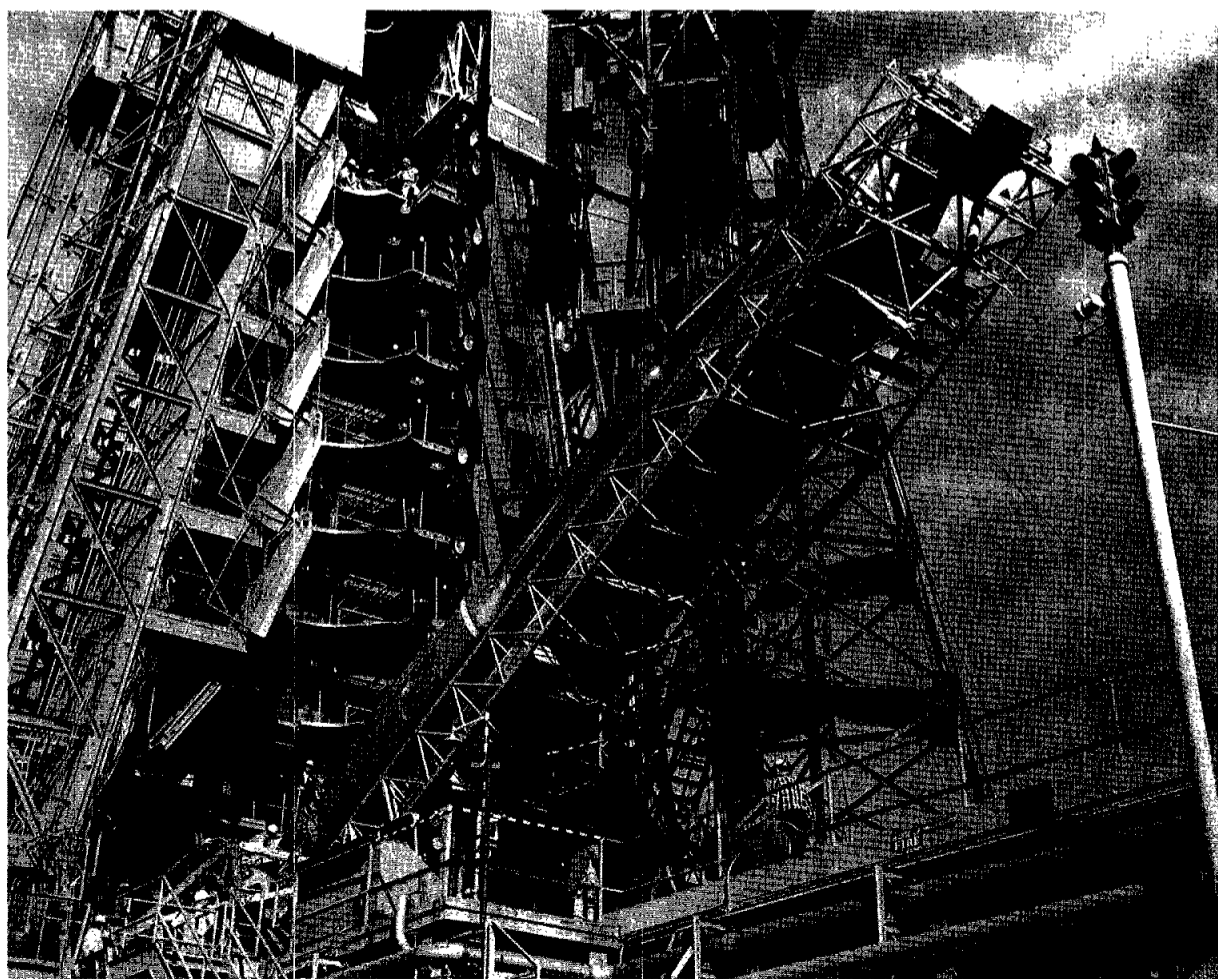
Walter C. Williams, Associate Director of Manned Spacecraft Center, who will direct the MA-6 flight said that "this first manned orbital flight is the end of the beginning of our man in space program. It is the most important step we have made yet, the greatest achievement . . ."

The primary purposes of the MA-6 flight are to investigate the

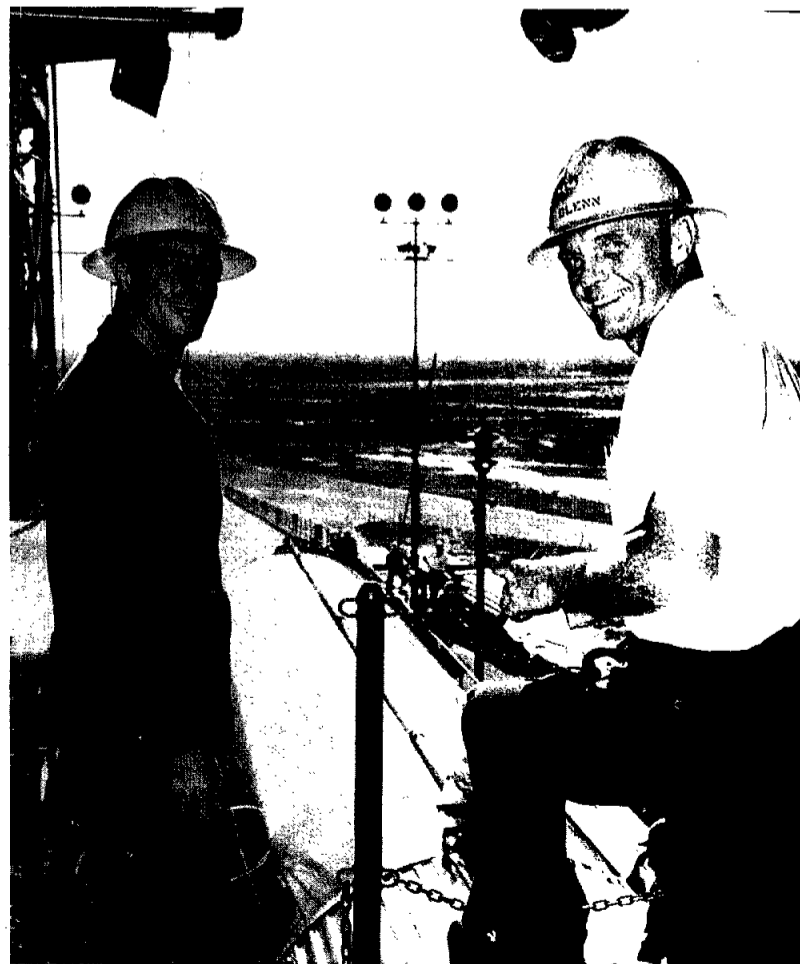
capability of man to function during a prolonged period of weightlessness and to further qualify the Mercury spacecraft and all its systems during insertion into orbit, in orbit, and re-entry from orbit.

The basic functions to be performed during the flight by the astronaut include systems management (monitoring the environmental control, electrical, attitude control and communications systems), navigation, research observations to evaluate man's capability to perform in space, communications to receive navigational and other information, and control of vehicle attitude.

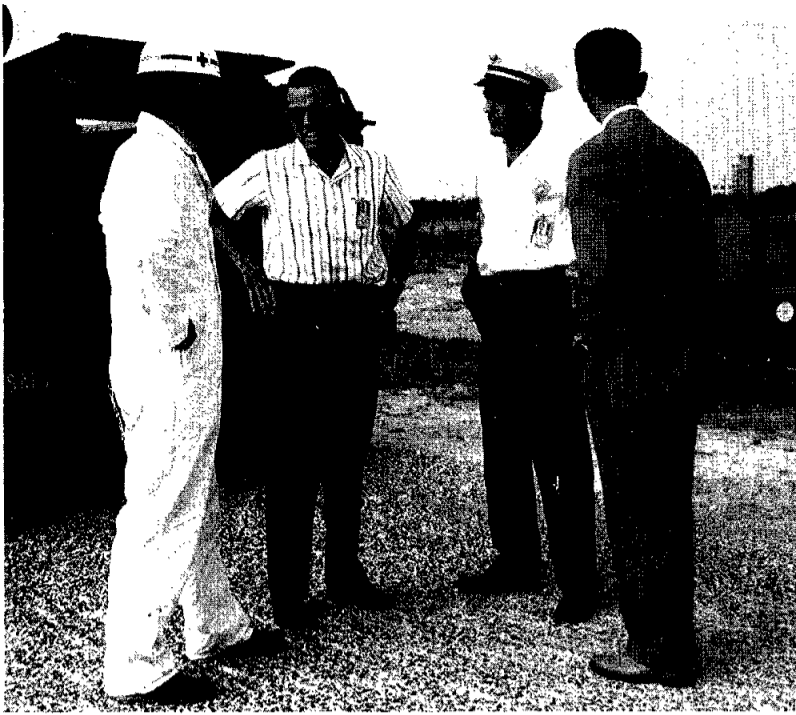
Actual timing of the launch and circumstances of the flight will determine whether one, two, or three orbits will be flown. In any event the retro-rockets will be fired as the spacecraft approaches the West Coast of the United States to initiate re-entry, following its 17,400 mph trip into space.



THE ATLAS LAUNCH VEHICLE to be used in the MA-6 flight is pictured as it was raised into position at launch pad 14 at Cape Canaveral last month. This photo also presents an unusual view of the gantry.



TWO VITALLY INTERESTED SPECTATORS at the erection of the launch vehicle were Astronauts M. Scott Carpenter and John H. Glenn, Jr., scheduled to be respectively, back-up pilot and pilot of the United States' first manned orbital flight.



ASTRONAUT GORDON COOPER, second from left, and members of the Mercury Emergency Egress Committee discuss training procedures and test results.



A HELICOPTER IS SHOWN hovering over Complex 14 as the aerial responsibilities and control of emergency egress training are checked prior to a flight.

Mercury Emergency Egress Committee Plans, Trains Personnel To Insure Astronauts' Safety

Astronaut safety during launch phases of manned space flight is foremost in Project Mercury planning. Emergency egress on the Cape Canaveral launch pad, first step in advance preparation for every conceivable emergency through spacecraft recovery, is planned by an Emergency Egress Committee headed by Astronaut L. Gordon Cooper.

Cooper's committee was named more than two years ago to formulate emergency rescue plans in order to insure maximum safety for the astronaut as well as minimum danger for launch personnel and those available for rescue operations.

The well-trained Mercury Emergency Egress Team, which has the responsibility for the possible launch pad rescue of the astronaut, is composed of representatives from NASA, McDonnell Aircraft Corporation, the U.S. Army, the U.S. Air Force, and Pan American.

Detailed egress procedures covering every foreseen malfunction possibility are published in handbook form prior to each launch. However, since remote possibilities always exist, successful rescue operations largely depend on response, skills, and adaptability of the rescue personnel involved.

For weeks prior to scheduled launches, rescue team members spend every possible minute in training for their roles in the launch operation. Practice, both individually and as teams, is held continuously—such as handling the cherry picker around a dummy spacecraft.

Approximately one week prior to launch—right after a simulated countdown—all launch pad rescue vehicles and crews participate in rescue practice. A dress rehearsal is held at this time for the rescue team to practice with the astronaut until the entire operation is considered ready.

At T minus 120 minutes the astronaut is inserted into the spacecraft and "sealed" in by T minus 65. The gantry serves as an egress vehicle until retracted at T minus 52. A stationary escape tower, 25 feet from the launch stand, then serves egress purposes. The tower, a modified umbilical tower for the Midas program, includes an elevator which can be lowered to the ground within 60 seconds, and an

automatic or manually operated catwalk that can be lowered within 30 seconds to the spacecraft hatch. Prime backup for this tower is a cherry picker, positioned at the blockhouse to be moved forward by a blockhouse-stationed operator.

The basic philosophy of Cooper's Emergency Egress Committee is that the astronaut is safest inside the spacecraft—with its ability to abort—under most emergency conditions. However, possibility of fire in the spacecraft or development of some condition endangering the life of the astronaut while inside the spacecraft has been recognized and prepared for.

The astronaut is capable of aborting his mission at any time, using the spacecraft escape tower rockets to carry his craft several hundred feet out of danger within one minute. Prior to use of the escape rockets, he can blow the side egress hatch, climb onto the egress tower, ride the elevator to the ground and be picked up by rescue vehicles and removed from the danger area within a matter of minutes.

Alerted armored personnel carrier (M-113's) will be stationed beyond a high fence about 300 yards from the launch pad. An open gate will permit their immediate access to the pad. One vehicle, equipped with dry chemical firefighting materials, will be manned by a Pan American fireman, commanded by Pan American Assistant Fire Chief Lee Hipp.

The second Army vehicle will carry a five-man rescue squad. The vehicle commander will be a Pan American pad safety man, chosen for his knowledge of explosives and safety requirements at pad areas under critical conditions.

A second member of the team will be a NASA medical doctor, permanently stationed at Cape Canaveral on the astronauts' aeromedical team. In cases of astronaut injury, this doctor will assume command of rescue operations.

A third member will be a McDonnell spacecraft technician, chosen because of his knowledge of spacecraft systems, ability to disarm explosives, and to get into the spacecraft in the least possible time without endangering the pilot.

The other members of the team will be Pan American employees,

one to drive the vehicle and the other a fireman who can assist in fighting spacecraft fires if necessary or, because of his first aid knowledge, to aid the doctor if needed.

In the event of fire aboard the spacecraft during pad abort, the two Army vehicles will be rushed to the pad and subdue the flames with firefighting materials used through remote controlled nozzles to enable the rescue squad to reach the craft.

Astronaut self-egress from the spacecraft is considered most desirable; it is faster and endangers fewer lives. However, since all eventualities must be considered, the rescue team must be prepared to remove him from the spacecraft. The method of entering the spacecraft from the outside depends upon the amount of time available.

If the astronaut is incapacitated and must be removed immediately, the hatch will be blown from the outside. The hatch can be removed manually by the spacecraft technician if the mission is scrubbed. However, if the mission is called off after the umbilical cable drops away, the time factor become quite critical due to loss of spacecraft cooling; thus, the hatch may be blown off by the astronaut or technicians before members of the rescue team ascend to the spacecraft to assist or to remove the astronaut.

The rescue team is in constant radio contact with the blockhouse and with helicopters deployed in and around the launch area. Therefore, their operation can be directed from either the blockhouse by the General Dynamics/Astronautics Test Conductor or by Lt. Col. Harry S. Cannon, Cape Recovery Commander, from his helicopter.

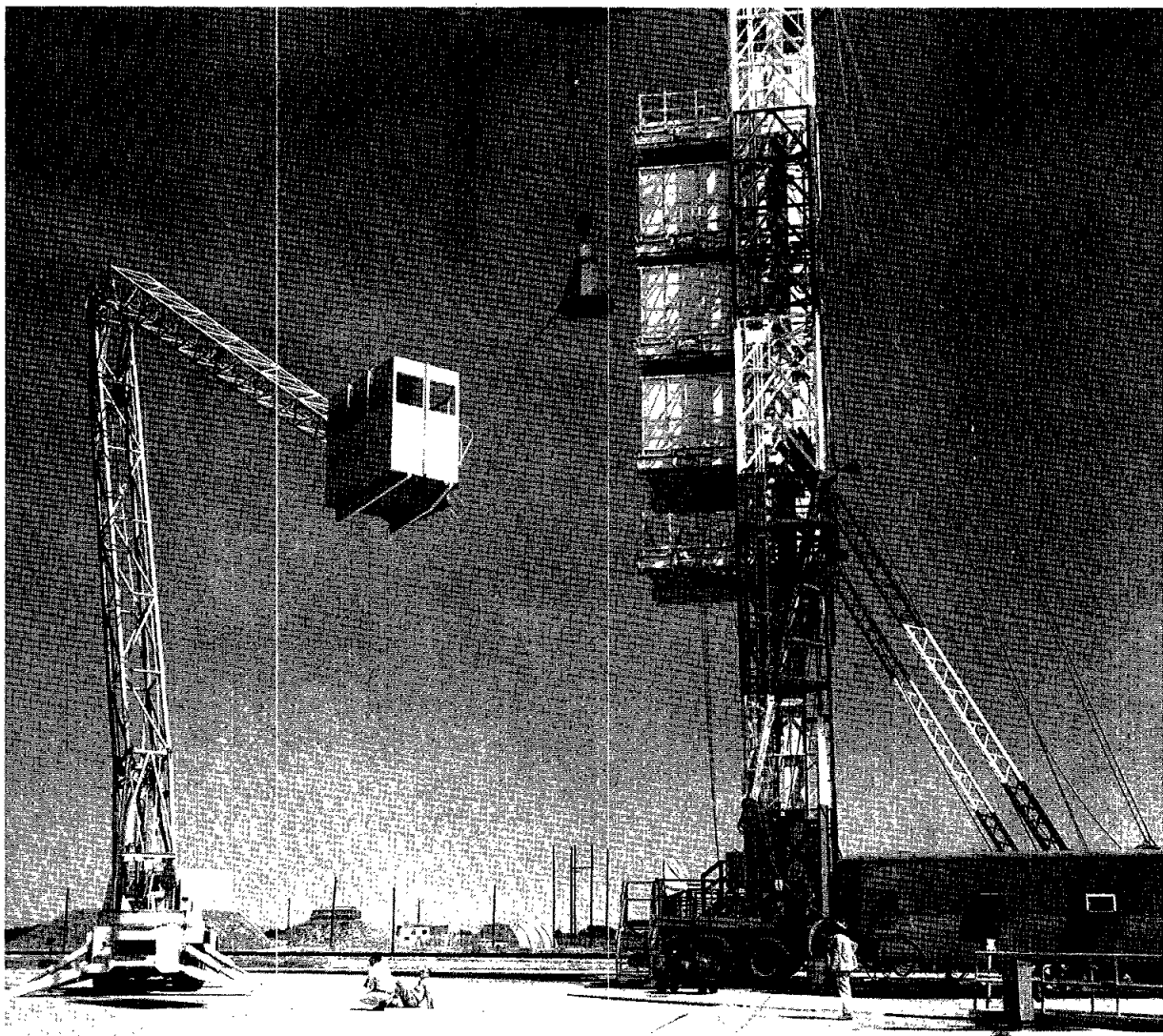
Even if the spacecraft should land outside the launch area, the pad rescue team may be called upon to assist the cape recovery team in places which might be inaccessible to other recovery equipment.

Cooper's Emergency Egress Committee, co-chaired by Hugh S. Herring, Atlas coordinator for Manned Spacecraft Center at the Atlantic Missile Range, constantly seeks to improve techniques and equipment and has incorporated into the rescue plans all known methods to meet any emergency.

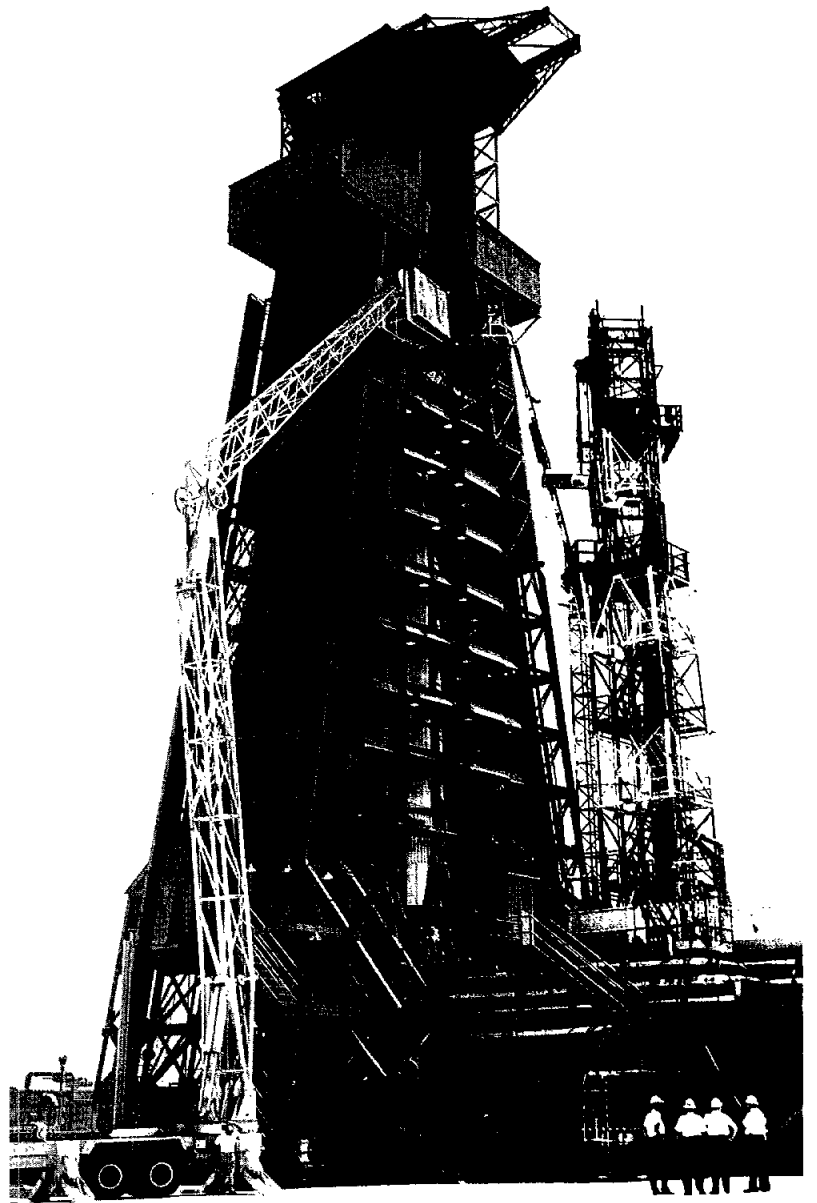


THE CHERRY PICKER is shown above, just after being placed in position during egress training. Below, at the left, is the egress tower at Pad 14.

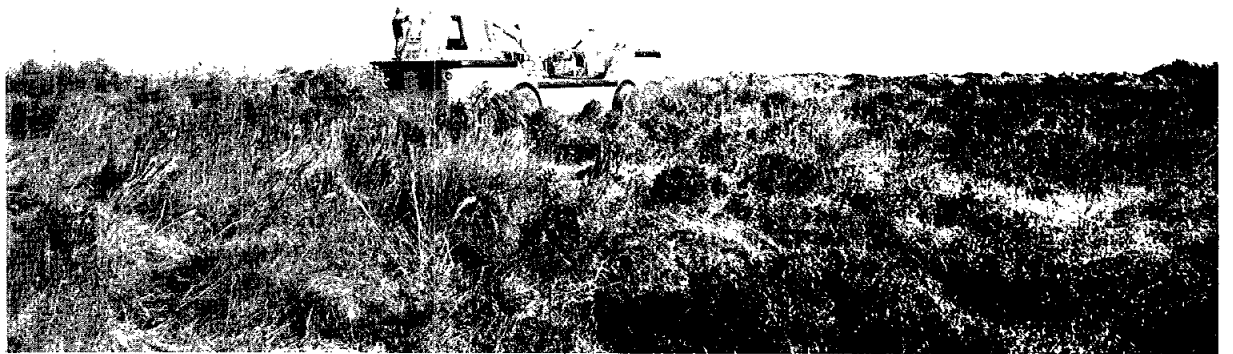
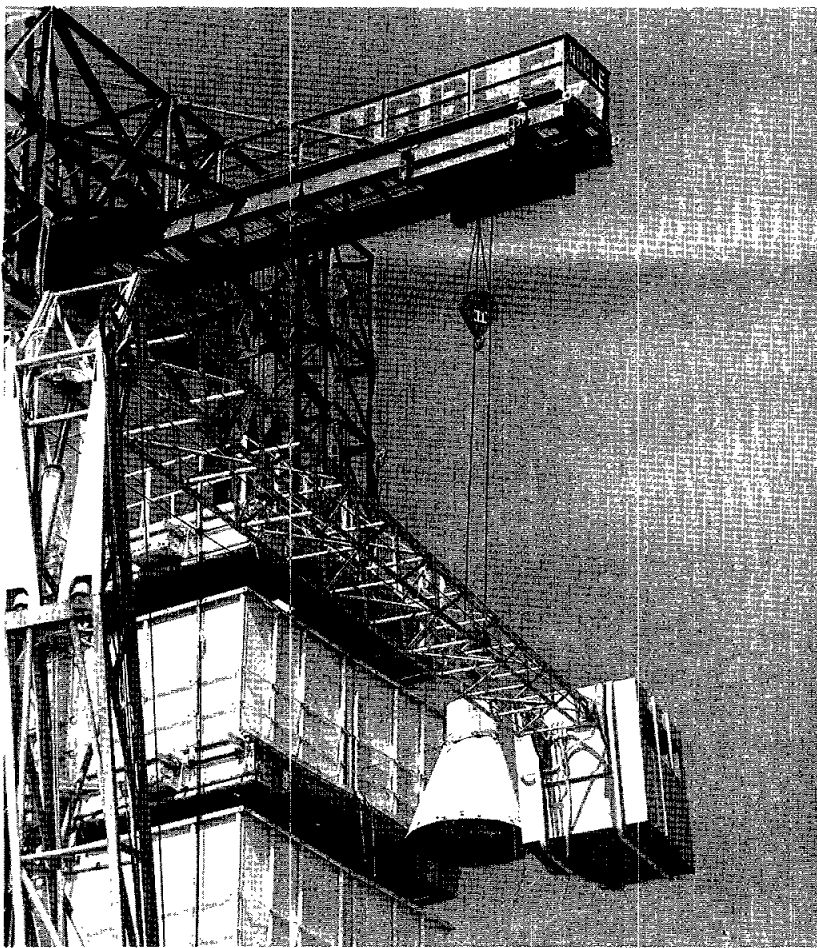




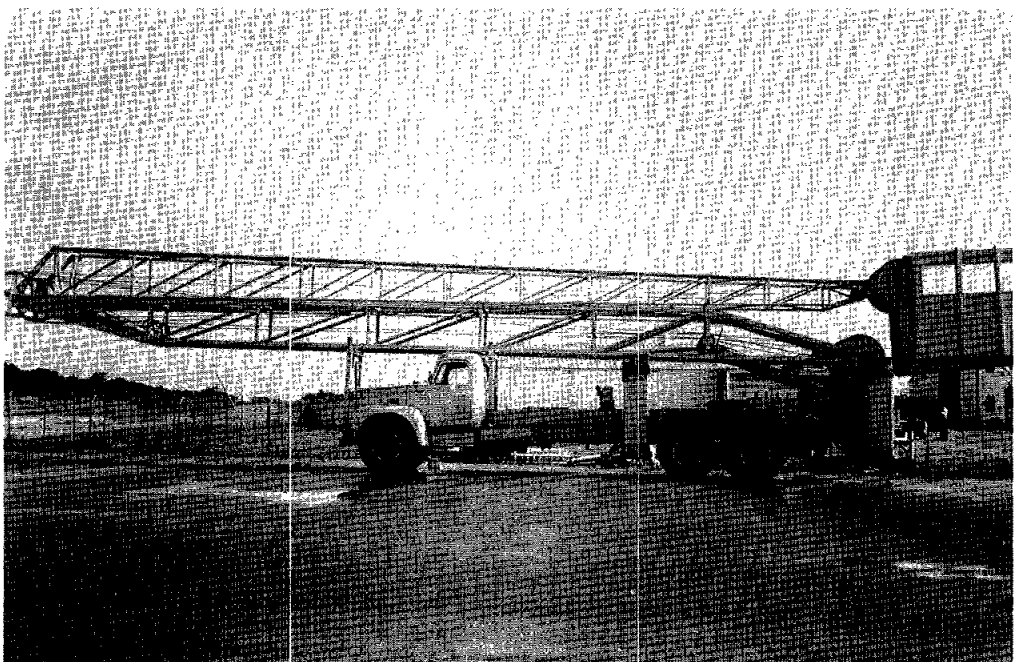
THE CHERRY PICKER is shown above during emergency egress practice with a boiler plate spacecraft as it is maneuvered into position. At the left, it is shown as it reaches a position where the pilot could perform a side hatch egress.



THE CHERRY PICKER is shown in position to serve as a backup for the egress tower shown on the right during egress practice at Pad 14.



A U. S. ARMY LARC recovery vehicle shows its ability to perform over rough terrain during an egress practice session.

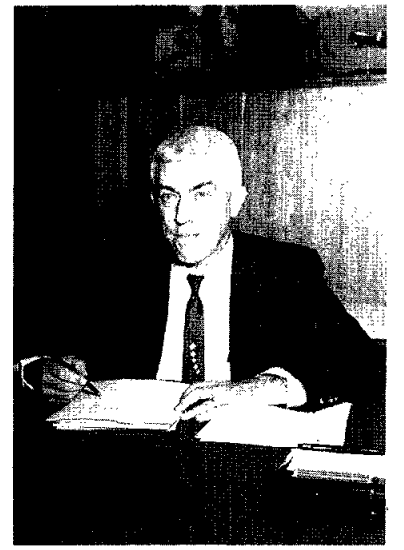
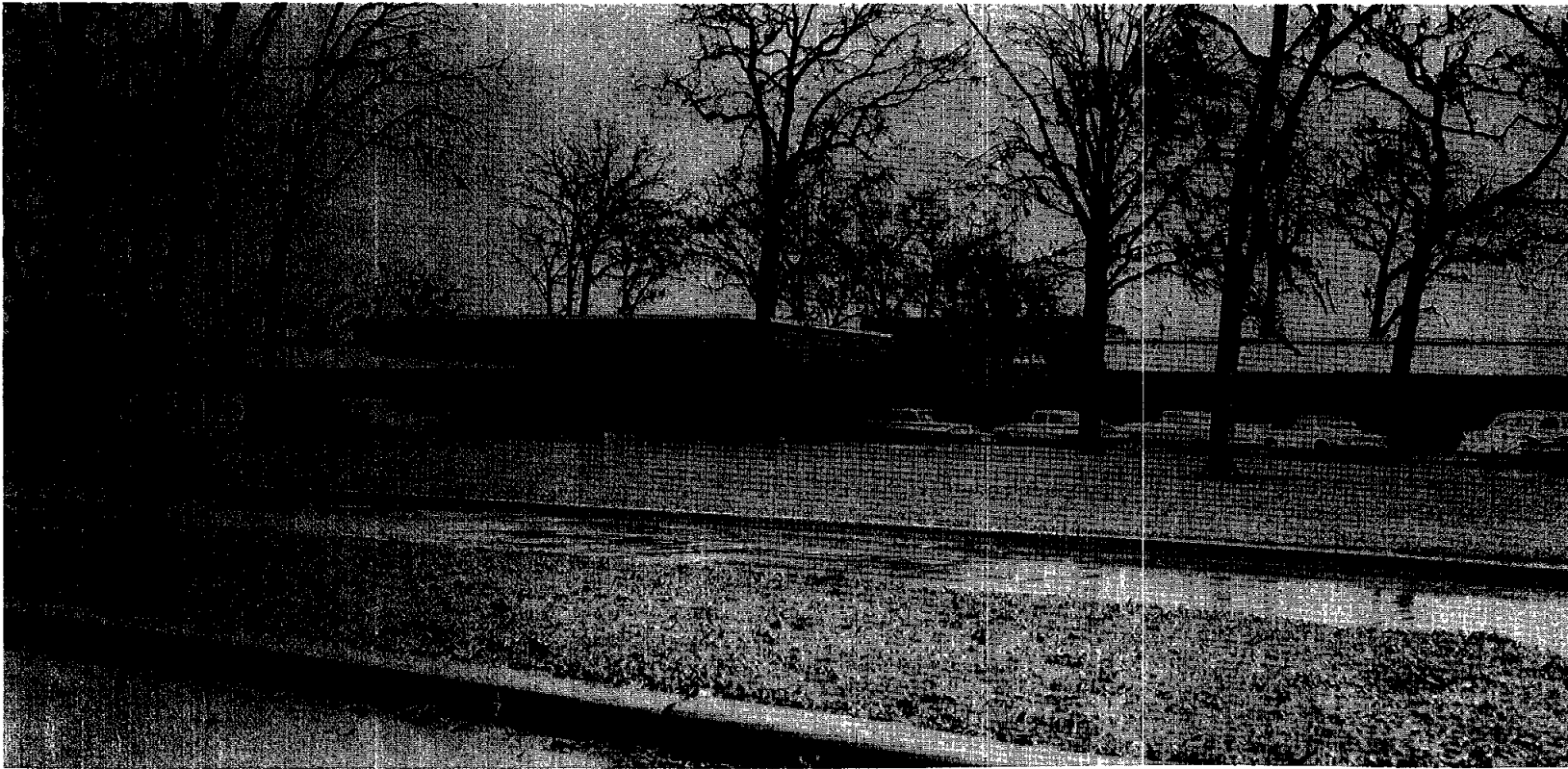


ONE OF THE PRIME RECOVERY VEHICLES, the cherry picker, is shown as a mobile piece of equipment, ready to be moved into position at moments notice.



AN ARMORED VEHICLE proves its capability of overcoming obstacles in its path as it breaks through a barricade on a recovery mission.

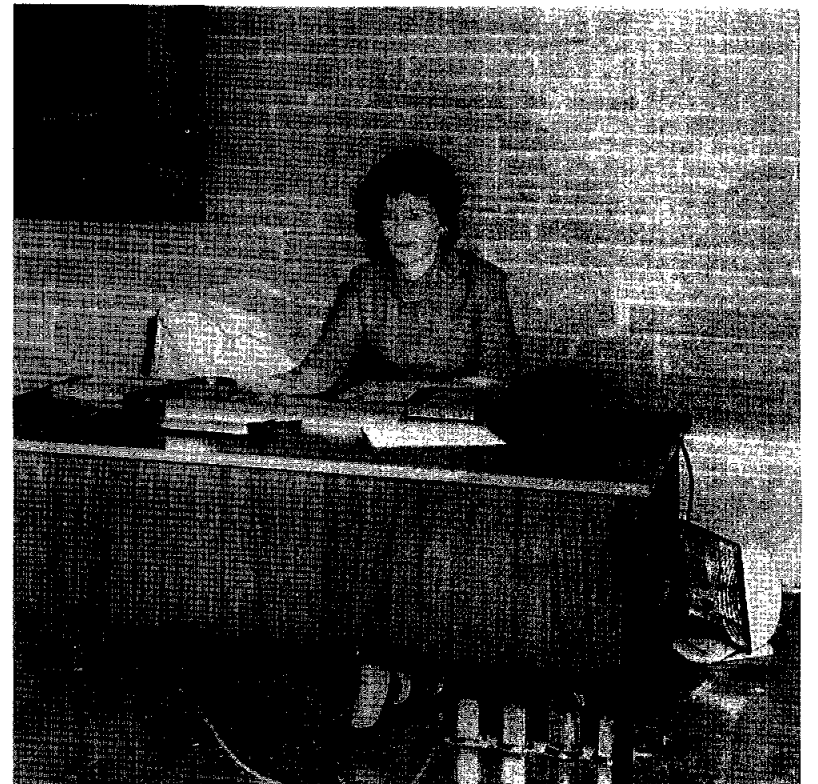
Operations at Houston Sites Increasing Rapidly



MARTIN BYRNES, Houston Site Manager, is shown at his desk, above. At the left is the Manned Spacecraft Center Headquarters in the Houston area, located in the Farnsworth-Chambers Building at 3201 Brock.



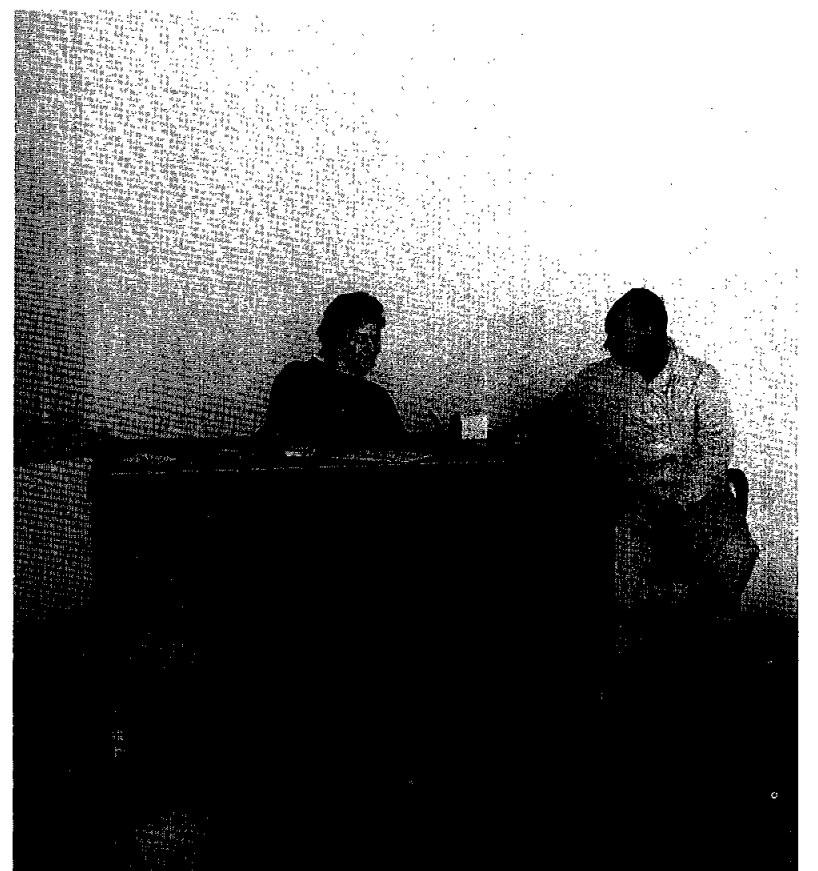
VIP VISITORS TO MSC's Houston area offices are shown in the conference room at the Farnsworth-Chambers Building. Left to right, seated, Congressman Olin E. Teague, Congressman George P. Miller, Chairman of the House Committee on Science and Astronautics; and Charles F. Ducander, Executive Director and Chief Counsel of the House Committee on Science and Astronautics. Standing, left to right, Congressman Robert R. Casey, D. Brainerd Holmes, NASA Director of Manned Space Flight; and Robert R. Gilruth, Director of Manned Spacecraft Center.



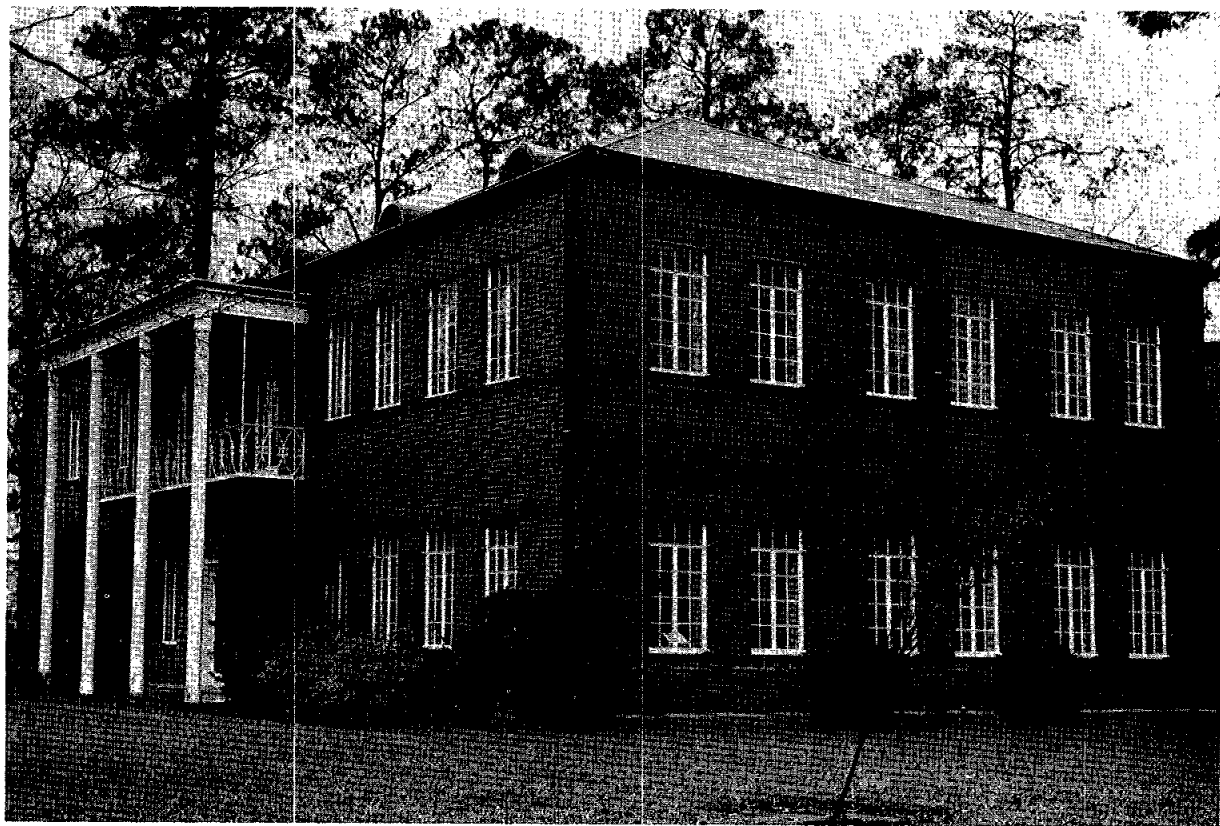
THE RECEPTIONIST for the Farnsworth-Chambers Building is Laverne Brazil, pictured above at her place of business.



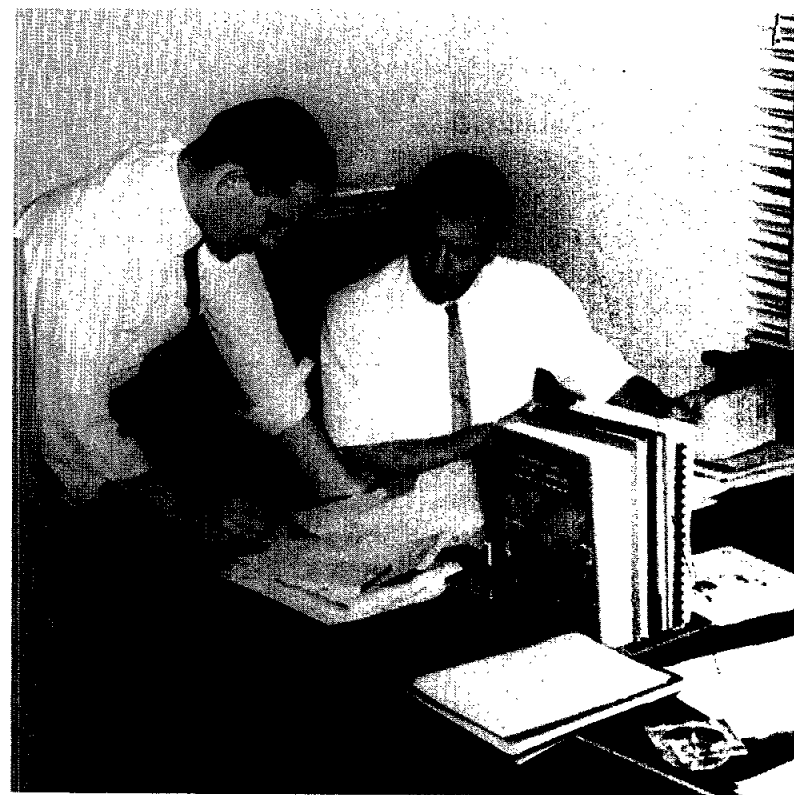
STENOGRAPHIC SERVICES personnel at work. Left to right: Ruby Podlewski, Mamie Hall, Myra Shimak, and Verby Balinas.



THE LANE-WELLS Building receptionist is Amie Chandler, shown chatting with an applicant for employment as she gives him needed information.



THE LANE-WELLS BUILDING, LOCATED AT 2002 SOUTH WAYSIDE.



TWO MEMBERS OF THE LIFE SYSTEMS DIVISION staff, Bob Devine, left and Bill Kincaide discuss a problem.



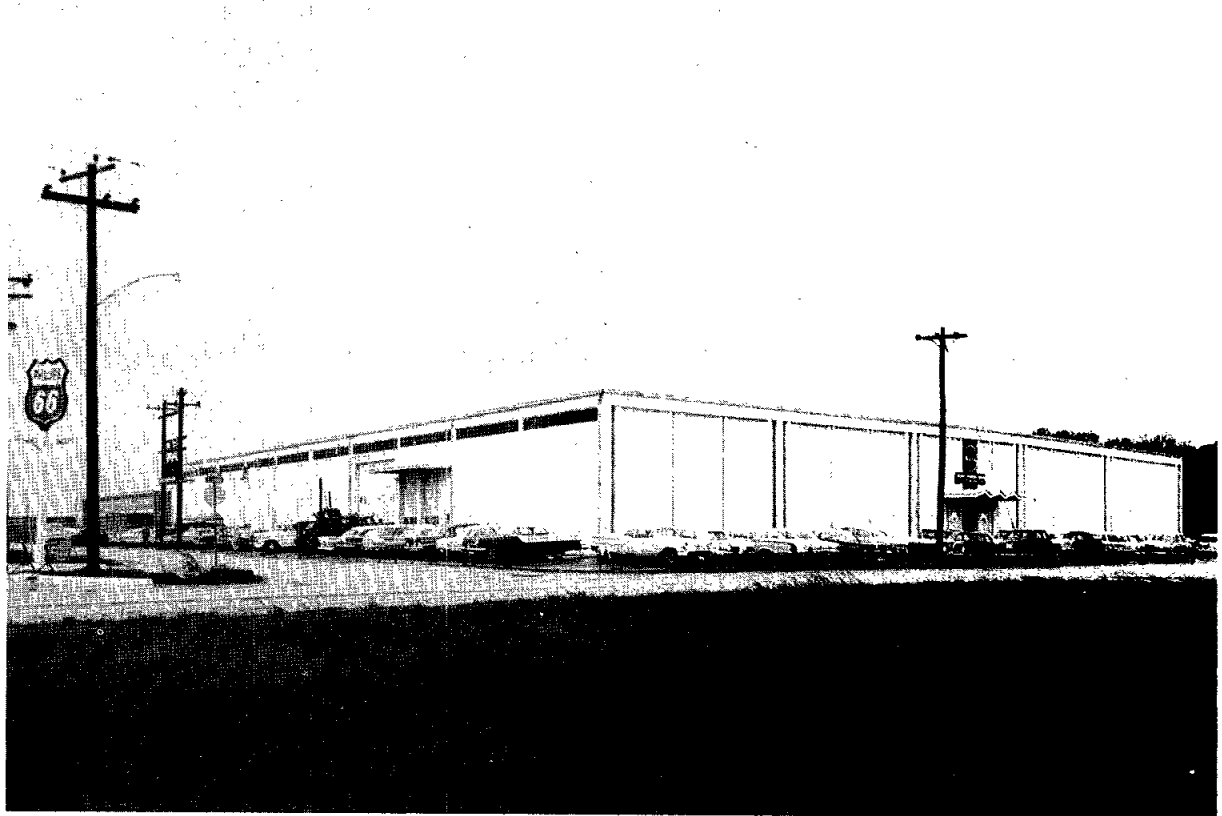
IONA KENT, receptionist at the Rich Building, takes a message as Frank Glynn of Technical Services gives smiling approval.



A GROUP OF CO-OP STUDENTS, newly arrived at Houston, are shown in the conference room of the training office during their orientation.



DAVID HAMMOCK and Janet Potchernik of the Flight Vehicle Integration Branch seem to be obviously pleased over the progress of a project.



THE RICH BUILDING IS LOCATED AT 6040 TELEPHONE ROAD.

The **SPACE NEWS ROUNDUP**, an official publication of the Manned Spacecraft Center, National Aeronautics and Space Administration, Langley AFB, Va., is published for MSC personnel by the Public Affairs Office.

Director Robert R. Gilruth
Public Affairs Officer John A. Powers
Editor Ivan D. Ertel
Staff Photographer Bill Taub

On The Lighter Side

Personnel in government service really have it made!

Consider for example, a civil servant who works for Manned Spacecraft Center and has been around a number of years.

This happens not to be a leap year so it has 365 days. There are still 52 Saturdays and 52 Sundays in the year—normal days off so that only leaves 261 days to work.

There are seven legal holidays which brings the work-year down to 254 days. One must consider that there is a normal 15-minute coffee break each morning and afternoon which amounts to 16 days during the year and lowers the work-year to 238 days.

Then, too, consideration must be given to the fact that there are 24 hours in each day and the normal work day is only eight hours, thus leaving two-thirds of each day for the pleasure of the employee. Now two-thirds of the aforementioned 254 work-days is 170 and that 170 subtracted from 238 brings the total of work-days down to 68.

Assuming as above, that the case is of one who has been around for some time is being judged, he gets 26 days a year annual leave so there are 42 days remaining. Then, the 13 days sick leave should be subtracted which leaves 29 days.

It seems, that due to the fact that MSC's operations are so far-flung, it would be only fair to figure that this employee spends at least 15 days each year in travel to and from TDY stations. This subtracted cuts our hero's work-year to 14 days.

Since he is with MSC, he is faced with a relocation problem. Let us assume, conservatively, that his permanent change of station move will entail four days, it will take him one day to clear out his desk at Langley, another day to put this conglomeration acquired through the years back into order at Houston, he spends one day at the Relocation Center gaining information so he can weigh the advantages of such a move against the disadvantages, it takes one day to process through personnel, travel, finance, etc., before leaving Langley and the same amount of time processing in at Houston. This is a total of nine days, which subtracted from the 14, leaves a total of five.

This good civil servant is concerned about the welfare of others, so he contributes a pint of his rich blood to the cause every three months—thus being entitled, normally, to a half-day off each time, or a total of two days.

Now there are other things which might be taken into consideration like time off to vote, administrative leave due to extreme weather and the like, but if these things were subtracted he might think someone was watching him too closely. So we'll give him credit for working the three remaining days.

Yep, personnel in government service really have it made!



A RECENTLY NATURALIZED CITIZEN OF THE UNITED STATES, Terry Brummer, 7, adopted son of CWO R. C. Brunner of Hq., CONARC, said that he was happy to be a U. S. citizen for he would be able to vote. When asked who he would vote for president, the young German-born lad replied, "One of the Astronauts." He was thrilled a short time later at meeting M. Scott Carpenter, and the two are shown above as they check out a spot on the globe. —Photo by Coler

25 Transferred To Houston Site

A total of 25 Manned Spacecraft Center personnel accomplished permanent change of station to Houston during the period January 3 through January 8.

TRANSPORTATION OFFICE: Edward S. Johnson.

LIFE SYSTEMS DIVISION: Edward L. Hays.

SUPPLY OFFICE: Donald Alcorns, Cecil J. Raines.

PERSONNEL OFFICE: Raymond L. Schrunk, Bernice P. Slaughter.

FLIGHT OPERATIONS DIVISION: Emory F. Harris, Jeremy B. Jones.

PROCUREMENT AND SUPPLY OFFICE: Nancy P. Gray, George J. Mehailescu, Charlie T. Slaughter.

APOLLO PROJECT OFFICE: Thomas F. Baker, Edward H. Oiling, M. Carolyn Schrunk, Edward L. Tribble, Jr.

TECHNICAL SERVICES: John H. Allen, Sr., LaMarr D. Beatty, Claude J. Bird, Elbert Prine.

FLIGHT SYSTEMS DIVISION: Robert G. Brock, Ervin L. Chicoine, Herbert G. Patterson, Milton Peyronel, William R. Scott, Kenneth C. Weston.

D. Kuettner Named To Apollo Post

Dr. J. P. Kuettner, former chief of the Mercury-Redstone program at the NASA Marshall Space Flight Center, will be assigned to the Center's Saturn Systems Office where he will be in charge of the Saturn-Apollo program.

Dr. Kuettner's job will be to manage the systems integration of the manned Apollo spacecraft with the Saturn C-1 and advanced Saturn launch vehicles. He will represent the Saturn office in contacts with the NASA Manned Spacecraft Center and its contractors in the systems integration area.

The Manned Spacecraft Center is responsible for developing the three-man Apollo spacecraft and training astronauts, whereas the Marshall Center is in charge of developing and launching the vehicles used in the manned lunar exploration program.

11 Co-op Students Join MSC Staff

Eleven co-op students have gone to work for Manned Spacecraft Center since the first of the year. Eight of the group are assigned to duty at Houston and three at Cape Canaveral.

Those at Houston are William E. Berry, Harry G. Clauss, David H. Perel, Daniel B. Potochniak, Howard J. Strauss, and Harold A. Vang, all of Drexel Institute of Technology; Frank A. Burgett of Fenn College, Cleveland, Ohio; and Herbert W. Rahm, Jr., of University of Louisville.

At Cape Canaveral are Stanley L. Adams and James F. Krider, both of Drexel; and Thomas W. Wright of Auburn.

The students are assigned to the Flight Systems, Life Systems, and Pre-Flight Operations Divisions.

Additional co-op students are expected to report in February from Georgia Tech, University of Florida, Louisiana State University, and the University of Houston.

MSC PERSONALITY

Engineering Chief James Chamberlin

WELCOME ABOARD

During the period January 3-11 there were 78 additions to the Manned Spacecraft Center rolls.

STENOGRAPHIC SERVICES: Shirley S. Holloman, Flora Mae Cox, Marion I. Loveless, Nola S. Caminade, Mildred M. Crenshaw, Nancy W. Lehmborg, Bobbie N. Kerzee, Elaine B. Kleiman, Cecilia A. Swindell, Gloria McDonald, Joan M. Pesek, Ruby N. Podlewski, Carol W. Hicks, Paula M. Fyffe, Mary A. Goodwin, Louise D. Brown, Iona G. Kent, Myra L. Shimak, Sandra J. Hull, Lettie M. Duesing, Verby Lee Balinas, Carolyn L. Sage, Barbara G. Wright.

LIFE SYSTEMS DIVISION: Lewis H. Lee, John H. Reed, Jr., David H. Perel, Frank A. Burgett, William E. Berry, Daniel B. Potochniak, Paul R. Penrod.

FINANCIAL MANAGEMENT OFFICE: Doren E. Schnell, Margaret Harrison, Irwin D. Stanford, Robert P. Lineberger.

PROCUREMENT AND SUPPLY: Winlon B. Pelham, Naomi E. Davis.

TECHNICAL SERVICES: James E. Adkins, Walter D. Salyer, James C. Clarke.

PRE-FLIGHT OPERATIONS DIVISION: James F. Krider, Stanley L. Adams.

ADMINISTRATIVE SERVICES: Agnes M. Palmer, Eligha O'Quinn, Clarence Myers, William Parker, Frances E. Reid.

SUPPLY OFFICE: Jessie L. Rollins, Manly C. Breaker, Sylvester Barrett, James D. Jenkins, Martin D. Davis, James B. Busby, Jesse L. Welder, Lester L. Lackey, George J. Mallios.

DIGITAL COMPUTER GROUP: Minnie A. Schnell, Mary P. Segota.

MANAGEMENT ANALYSIS OFFICE: Clarence M. Presswood.

FLIGHT SYSTEMS DIVISION: Herbert W. Rahm, Jr., Hoyt E. Maples, Harry G. Clauss, Jr., Conrad C. Boette, Jr., Frederick E. Ritchie, Harold A. Vang, Howard J. Strauss.

MANAGEMENT SERVICES: Charles M. Grant, Jr., Dexter W. Haven.

FLIGHT OPERATIONS DIVISION: Alyce M. Dillinger, Kenneth J. Allen, Lucia N. Gurley, John C. Stonesifer, Frank S. Coe III, Barbara A. Schiller.

ENGINEERING DIVISION: Thomas J. Grace, Jr., L. Faye Wilkes, Homer W. Dotts.

PERSONNEL OFFICE: Kenneth I. Jefferies.

POWERS SPEAKS

John A. Powers, MSC Public Affairs Officer, was the principal speaker at the Corpus Christi, Tex., Chamber of Commerce annual banquet.

The more than 900 persons present heard Powers tell them that it is up to the American people to decide how soon a man can be put on the moon. He emphasized that the ultimate goal of the space program must have the complete backing of all citizens.

James A. Chamberlin, Chief of the Engineering Division, entered NASA employ early in April 1959 as a Space and Aeronautical Scientist, Technical Assistant. He was promoted to his present duties in October of that year.

Chamberlin was born in Kamloops, Canada, and was graduated from the University of Toronto with a bachelor of arts degree in Mechanical Engineering. He also attended the Imperial College of Science and Technology in London, England.

From February 1940 until September 1941, Chamberlin was with Federal Aircraft Ltd., of Montreal, Quebec, and worked on technical aspects of design and stress in con-



JAMES A. CHAMBERLIN

nection with the modification of the Avro-Anson aircraft.

From September 1941 until June 1942, he served as Chief Engineer for Clark Ruse Aircraft Ltd., at Dartmouth, Nova Scotia. In this position he was in charge of engineering and overhaul of service aircraft used on the East Coast of Canada for training and anti-submarine work.

In June 1942 he accepted employment as Research Engineer for Noorduyn Aviation Ltd., Montreal, Quebec. In this position he headed project work on trainer and light cargo aircraft and did design studies on other projects for the Royal Canadian Air Force.

From February 1946 through March 1959 he was with AVRO Aircraft Ltd., Toronto. His last position with that organization was Chief of Design. During his service there he was responsible for the aerodynamic design of a jet fighter and a jet transport. He was also responsible for the overall design of the CF-105 "Arrow", an advanced interceptor aircraft.

Other responsibilities Chamberlin had while there included complete design—aerodynamics, structures, powerplant installation, armament, fire-control, automatic control and stabilization, navigation, tactics, mission analysis, research and development testing, and flight testing of completed aircraft.

Chamberlin is a Professional Engineer of the Province of Ontario, a member of the Institute of Aeronautical Scientists, and is an Associate Fellow of the Canadian Aeronautical Institute.



SOME OF MSC'S SCUBA DIVER CANDIDATES receive instructions from Sgt. Joe Garino on the use and handling of equipment. Left to right are Lyman Lee, Paul Folwell, Bill Lee, Jack Vohringer, Garino, and LaMarr Beatty.

MSC's Technical Services Expanded By Scuba Training

A training program, started last September, has resulted in Manned Spacecraft Center's having its own team of scuba divers. The team, composed of employees of Technical Services, was formed in order that the men chosen might be trained to assist in hardware inspection during water testing and other in-water assistance, other than life saving.

At the outset of the program the team members were required to prove their basic swimming abilities on and below the surface

of the water as well as to become acquainted with equipment used in scuba diving.

Instruction manuals on underwater safety and diving equipment were studied before the team members entered the water with any scuba equipment.

Following familiarization with equipment basic tests were taken, followed by more advanced tests such as two divers using one air supply, ditching equipment underwater, and the panic test (underwater malfunction of equipment).

A written test was taken by the team members in December to qualify for certificates indicating satisfactory completion of the course. The instructor was Sgt. Joe Garino of Langley Air Force Base Special Services. The course was given under the direction of Jack Kinzler, Technical Services Chief.

Those completing the course were Bill Lee, Lyman Lee, LaMarr Beatty, Jack Vohringer, Bud Carpenter, Billy Drummond, and Paul Folwell.



A TEAM EFFORT as Paul Folwell gives Jack Vohringer a hand with his equipment. LaMarr Beatty, far left, observes, and Bill Lee, far right, prepares to don his equipment.

NASA Regulations For Employment

For the benefit of all MSC employees—as a refresher for those who have been government employees for a period of time and as a matter of information for new employees—NASA policy and procedures regarding outside employment of NASA employees are specified below.

As defined in general management instructions, "outside employment is construed to mean any

work or services performed by an employee other than in the performance of his official duties. This includes, but is not limited to writing and editing, publishing, teaching and lecturing, consultative services, self-employment, and work or services performed with or without compensation.

Dr. L. R. Daniel Is Consultant On Graduate Study

Dr. Lawrence R. Daniel, Jr., has been named as Consultant to the Director of Manned Spacecraft Center in establishing a graduate program. During the week of January 8-12, Dr. Daniel was at Langley AFB, working with the training office and the graduate committee in determining policies and procedures in conducting the program.

Dr. Daniel is in charge of graduate offerings in the Mechanical Engineering Department at Louisiana State University. He is also Chairman of the Committee which prepares the licensing examination for Mechanical Engineers in the State of Louisiana.

He received a bachelor of science degree in mechanical engineering from Louisiana State in 1943, a master of science degree in aeronautical engineering from Chrysler Institute, Detroit, in 1948; a bachelor of science degree in civil engineering from Louisiana Tech in 1954, and his doctor of philosophy degree from Michigan State in 1959.

Dr. Daniel has taught 14 years at Louisiana Polytechnic Institute and Louisiana State as an instructor, assistant professor, associate professor, and full professor.

Industry Assistance Program Planned In Houston Area

An Industry Assistance Program will be held at the Shamrock Hotel in Houston February 7. The purpose of the program is to acquaint business representatives in the area with the type of purchases which are made direct in order that they might evaluate their capabilities to produce the needed articles.

It is anticipated that more than 1,000 representatives of firms from within a 125 mile radius of Houston will attend.

Large NASA contractors such as North American Aviation, McDonnell Aircraft, Collins Radio, AVCO, and Philco will have representatives present to furnish information as to what "gadgets" they normally contract for.

Forums will be conducted and counselors will give what assistance they can to the attending representatives. In addition to the aforementioned MSC and GSA representatives will be present to discuss the items normally purchased locally on a direct basis.

The program is being coordinated by H. T. Christman, Contractor Relations Officer in Procurement.

As a general policy NASA employees may not engage in any outside activity which might result in an actual or apparent conflict of interest between the private and official government duties and responsibilities.

However, in the absence of such conflict, NASA employees are entitled to the same rights and privileges as other citizens, and so there is no general prohibition against NASA employees engaging outside employment if:

(1) The employee's normal job performance is not adversely affected by the outside work, and

(2) The employee's outside employment does not reflect discredit on the government or NASA.

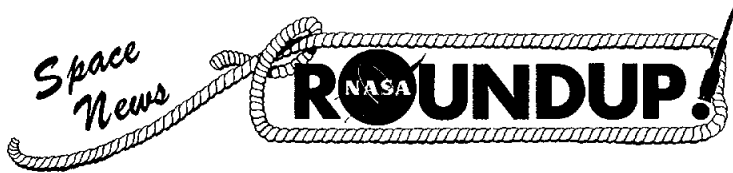
NASA employees may not accept outside employment which violates federal, state, or local ordinances, Executive Orders, or regulations to which the employee is subject; work which identifies NASA or its employees in their official capacities with any organization manufacturing, distributing, or advertising a product relating to work conducted by NASA, or work performed under such circumstances as to create the false impression that it is an official action of NASA, or represents an official point of view.

Employees also may not accept work that requires their time during official duty hours; work in connection with which the employee makes use of official facilities such as space, office machines or supplies, or the services of other employees during duty hours; or work obtained by the employee through the use of information from official sources not freely available to the general public, and work which enables the employee or his employer to derive an unfair advantage from the use of such official information.

Permissible outside employment includes work contributing to an employee's technical or professional development and participation in the affairs of charitable, religious, nonprofit educational, public service or civic organizations, or in the activities of national or state political parties provided such activities are not prohibited by law.

Employees having questions concerning outside employment should contact their personnel office.

**BUY
SAVINGS
BONDS**



SECOND FRONT PAGE

Dr. Dryden Explains The Need For A Manned Lunar Program

The following letter to Sen. Robert S. Kerr, Chairman of the Senate Committee on Aeronautical and Space Sciences, by Dr. Hugh L. Dryden, NASA deputy administrator, is a summary of the reasons why America should pursue a program of manned lunar exploration:

"My Dear Senator Kerr,

"As you suggested during my recent discussion before the Committee, I will attempt to put in writing the remarks I made as to the significance of the program recommended by the President for landing a man on the moon and his safe return by the end of the decade to the present and future welfare of this nation.

"The attainment of the goal stated by the President requires extensive research and development in almost every branch of science and technology at the frontiers of knowledge in these various fields. New materials and components must be developed to function in the extreme cold and the extremely low pressures of outer space, at the extreme speeds, and at the extreme temperatures attained in rocket combustion chambers and on outer surface of bodies reentering the atmosphere at high speed.

"New developments in propulsion, in electronics, in communications, in guidance and control techniques, in computer techniques, are necessary in order to accomplish the task. New information in the life sciences, including the effects of the radiations encountered in outer space; the effects of long periods of weightlessness, and long exposure to a completely closed environment—all these are required and will provide new basic information about the performance of the human body under adverse conditions.

"This new knowledge and experience in the space sciences and technologies will provide the sound basis for applying our new-found knowledge to the design of space vehicles for a variety of purposes, some now foreseen, other unthought of at present. These applications include not only space vehicles for scientific research, for communications systems, for meteorological observation, and presently unforeseen civil uses, but also space vehicles for potential applications in the national defense.

"Space technology, like aeronautical technology, can be applied to military systems, and we must be well advanced in this technology to avoid its possible exploration against us.

"Equally important is the fact that these developments in science and technology are transferable to other applications in our industrial society. We have had repeated evi-

dence in the history of the development of the automobile, the airplane, and the nuclear reactor of the transferability of developments in these fields to other industrial applications.

"The development of space science and technologies strengthens our whole industrial base and serves as insurance against technological obsolescence. Education will profit. The discipline of cooperation in a great national effort may well be the instrument of great social gain. Many hope that space may be an area where all nations of the world may learn to work together for the benefit of all men.

"The setting of the difficult goal of landing a man on the moon and return to earth has the highly important role of accelerating the development of space science and technology, motivating the scientists and engineers who are engaged in this effort to move forward with urgency, and integrating their efforts in a way that cannot be accomplished by a disconnected series of research investigations in the several fields.

"It is important to realize, however, that the real values and purposes are not in the mere accomplishment of man setting foot on the moon but rather in the great cooperative national effort in the development of science and technology which is stimulated by this goal.

"The billions of dollars required in this effort are not spent on the the moon; they are spent in the factories, workshops, and laboratories of our people for salaries, for new materials, and supplies, which in turn represent income to others.

"It is unfortunate that space exploration is still so new that journeys of man to the moon are synonymous with foolish or visionary enterprises as described in science fiction.

"Fifty years ago flying through the air had the same connotations—risky, expensive, useful only as a sport. Our lack of appreciation of the potentialities of aeronautics extended through the early years, forced the Wright Brothers to go abroad.

"We entered the first World War with no design capability and no manufacturing experience, dependent completely on foreign designs. Only after the war did we begin to devote effort to research in the new aeronautical technology. We must not undergo the same experience in space science and technology.

"The national enterprise involved in the goal of manned Lunar landing and return within the decade is a activity of critical impact on the future of this nation as an industrial and military power, and as a leader of a free world."



A SMILING CONGRESSMAN Victor Anfuso, Chairman of the House Space Committee, gets a briefing on the operation of a Mercury procedures trainer from Astronaut John H. Glenn, Jr., pilot-elect of the United States' first manned orbital flight. Congressman Anfuso recently visited Cape Canaveral to get a comprehensive look at the space activities underway there.

MSC Reorganization Plans Released; Many Changes

Manned Spacecraft Center Director, Robert R. Gilruth, has approved a planned reorganization designed to further streamline the group and facilitate operation in its rapidly expanding roll. Major changes made include the establishment of the Office of Assistant Director for Research and Development a Mercury Project Office, Gemini Project Office, and Apollo Project Office, and the abolishment of the Flight Systems Division.

Maxime A. Faget has been named Assistant Director for Research and Development, and, in this position, he is charged with the responsibility for the conception and implementation of a program of research and development in the

MSC Credit Union Formed At Houston

An organization committee for the formation of a Manned Spacecraft Center Federal Credit Union at Houston has been formed. This group, headed temporarily by Bill Parker, has obtained the charter for the Credit Union.

The organization will become operative as soon as a seven-member Board of Directors and a three-member Credit Committee are elected and installed.

Ballots for the election of these people are being prepared and sent to all MSC personnel. All who certify that they plan to join the Credit Union will be eligible to vote.

Military personnel and technical representatives of industrial firms who are assigned to MSC Projects will be eligible to participate in the Credit Union activities.

areas of space research, space physics, life systems, and test and evaluation to support and advance manned spacecraft development. In the accomplishment of these duties he will supervise the Spacecraft Research Division, Life Systems Divisions, Systems Evaluation and Development Division, and Space Physics Division.

Assigned to his office will be Jack C. Heberlig, Advance Study Project Control; John B. Lee, Apollo Support Liaison; and B. M. Wilson, Program Coordination Office.

Charles W. Mathews will be Chief of the Spacecraft Research Division with Norman F. Smith as Special Assistant.

Dr. Stanley C. White will be Chief of the Life Systems Division with Richard S. Johnston serving as Special Assistant.

Alec C. Bond will be Chief of the Systems Evaluation and Development Division, assisted by

Joseph N. Kotanchik. Space Physics Division will not be organized until a later date.

James A. Chamberlin will head the Gemini Project Office; Kenneth S. Kleinknecht will head the Mercury Project Office; and Charles W. Frick will head the Apollo Office.

Walter C. Williams will continue, in an acting capacity, as Assistant Director for Operations in addition to his duties as Associate Director of Manned Spacecraft Center. G. Merritt Preston will continue as Chief of the Preflight Operations Division. Christopher C. Kraft, Jr. will be Chief of the Flight Operations Division. Chief of Astronauts and Training Division to be appointed, and Dr. Stanley C. White will act as head of the Aerospace Medical Operations Office in addition to his duties with the Life Systems Division.

Special Assistant to the Director is Paul E. Purser and Donald T. Gregory is Technical Assistant.

Other special staff members are John A. Powers, Public Affairs Office; J. Wallace Ould, Legal Office; Thomas W. Briggs, Program Analysis and Evaluation Office; Frederick J. Bailey, Jr., Reliability and Flight Safety Office.

DR. RUDOLPH NAMED

Dr. Arthur Rudolph, former director of Research and Development Operations for the Army Ballistic Missile Agency, has been named assistant director of systems engineering for NASA's Office of Manned Space Flight. His appointment was announced by D. Brainerd Holmes, director of the Office of Manned Space Flight.

**MA-6 MAY GO
JANUARY 27TH**

An attempt to launch the National Aeronautics and Space Administration's Manned Mercury-Atlas 6 is scheduled for no earlier than Saturday, Jan. 27th.

This timing will give engineers and technicians time to correct technical difficulties encountered in the spacecraft's environmental control system during prelaunch preparations.