SPACEPORT NEWS

Volume 2, No. 21 | NASA Launch Operations Center, Cape Canaveral, Florida | May 23, 1963

GORDO STILL GOING AT ORBITAL SPEED

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MA-9 Flight Highlights, Sidelights

When Dr. Duane Catterton of MSC relieved Dr. Charles Berry during the MA-9 flight last week he reported Astronaut Gordon Cooper's speech had become a little slow.

Upon hearing this, Mercury Operations Director Walt Williams, who has known the astronaut since the inception of Project Mercury, wryly quipped: "As far as slowness in talk is concerned, this boy was born in Oklahoma and is normally a slow talker, tired or not."

When Cooper slept for several hours during his MA-9 flight at 17,500 mph, it made Faith 7 the fastest Pullman in history.

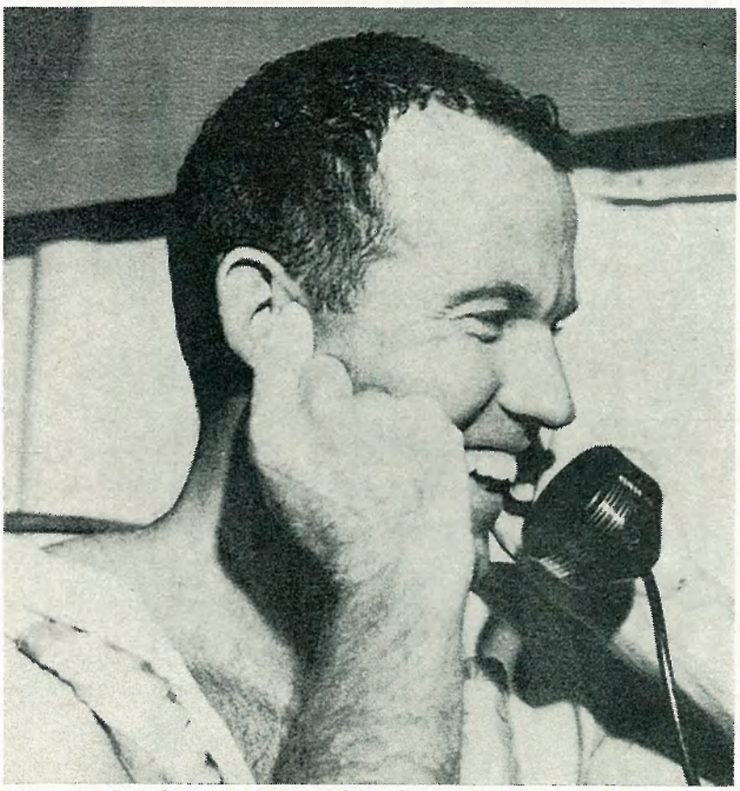
Cooper carried an extra piece of equipment with him on his record-setting journey last week — a one and a half inch ball peen hammer.

Backup pilot Alan Shepard gave it to him just before launch. In pre-space age days, mechanics tapped balky pieces of equipment and defective switches with such a hammer.

NASA has gone into the "hotel" business at Canaveral, according to some news reports. Newsmen here for the MA-9 coverage tabbed the dorm quarters next to Mercury Control, the "Mercury Hilton."

Walt Williams chided newsmen over use of the words

(See MA-9, Page 8)



A TIRED but happy Cooper aboard the Kearsarge, receives congratulations from President Kennedy.

$11 Million Low Bid Offered On 3 LUTs

A Birmingham, Ala., firm was announced Monday as the apparent low bidder to build three launcher-umbilical-towers (LUT) for the Saturn V Moon rocket.

Ingalls Iron Works Co. submitted a proposal to build the LUTs for $11,225,368.85. Theirs was the lowest of 10 proposals made to the Launch Operations Center.

An award of contract is expected to be made about June 5.

The government's estimated cost of the job was $12,636,-140.

The bid specifications call for the three LUTs to be constructed within a period of about 18 months. They will be fabricated elsewhere but will be erected and checked out in NASA'S Merritt Island Launch Area, where the Saturn V will be launched.

Each LUT will weigh about 6 million pounds and will tower 426 feet above the ground.

THE INSIDE STORY

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Whirlwind Schedule Maintained

Astronaut Gordon Cooper, who found it easier to snooze in the peacefulness of space than he has since he's been back on earth, capped a week of activity yesterday with a rousing tickertape parade in New York City.

Cooper's whirlwind schedule, which hasn't slowed since he crawled into his Faith 7 capsule eight days ago, now calls for some rest.

The veteran of more time in space than all other American astronauts put together has been feted at celebrations from one end of the United States to the other.

It began with a reception Saturday at Hawaii, and continued with a parade and press conference at Cocoa Beach Sunday.

Met President

Then came a meeting with President Kennedy, another parade and an address before a joint session of Congress. The New York parade climaxed the activities.

It was just a week ago today that Cooper was rounding out his record 34 hours in space.

He held tightly to the world's heartstrings when electrical troubles occurred late in the flight and he had to manually guide Faith 7 back to earth.

He threaded the needle with his craft, bringing it within four miles of the preplanned target area.

Cooper's overall superb performance as a pilot was lauded by NASA officials.

SPOTLIGHT

ADDING UP SOME DEFINITIONS

A person sent somewhere to perform a stipulated service —that's mission.

Ability to respond to one's obligations — that's responsibility.

The quality of mind which enables one to meet danger and difficulties with firmness — that's courage.

A setting aside for any particular purpose—that's dedication.

Devotion to the welfare of one's country — that's patriotism.

To believe; to have complete confidence in something—that's faith.

Work done by a number of associates, all subordinating personal prominence to the efficiency of the whole—that's teamwork.

To carry into effect; to realize or manifest completely—that's fulfillment.

Mission, responsibility, courage, dedication, patriotism, faith, teamwork and fulfillment—they tell the story of MA-9.

"I HOPE YOU DON'T MIND . . ."

School age youngsters all across the country, thrilled by Astronaut Gordon Cooper's flight, are overloading mailmen with letters to the Cape.

Typical of the unabashed enthusiasm is that shown by the fifth grade class of Mrs. Ruth Perry at the Melbourne Airport Elementary School. Each member of her class sent Major Cooper a personal note commenting on the mission. Herewith are some excerpts:

"I am one of your fans who saw you take off. I have a hunch you were pretty scared."

"Did you see any fireflies?"

"Say, have you met my father yet?"

"I bet your suit was hot up there."

"I want to be a woman astronaut — the first to go."

"I would like for you to send me an autographed picture of your handwriting."

One anxious youngster jumped the gun while Cooper was still in orbit: "When do you get back?"

"I realized you were scared when you went up. I would be too if I were you. I'm glad you are an astronaut because you are so intelligent and happy."

"When you were up there going around, did you see anything strange looking?"

"How did you feel eating that food out of a cellophane paper?"

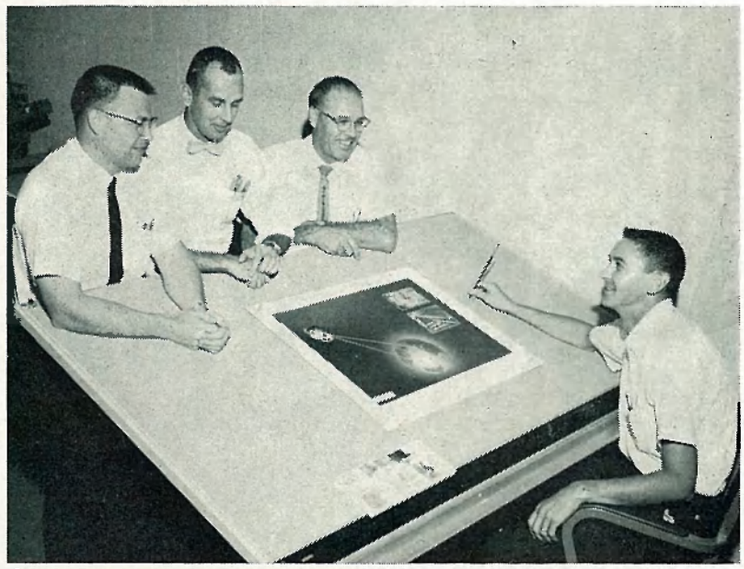
Perhaps the general feeling of the entire class as well as the nation was summed up by this boy and girl:

"You are the most patriotic man I've ever known."

"I hope you don't mind my saying this, I love you."

SPACEPORT NEWS

Published each week by the National Aeronautics and Space Administration's Launch Operations Center, Cape Canaveral, Florida.



CONGRATULATIONS were in order for Graphics' artist Bruce Gaver, right, whose Telstar painting, above, won a first place award at the 10th annual convention of the Society of Technical Writers and Publishers in Boston. Offering words of praise are, left to right, Dave Smith, Bill Willmot and Russ Hill of Technical Information, who represented LOC at the convention.

Artist Wins First Prize In National Competition

Three members of LOC's Technical Information Office, Russ Hill, Dave Smith and Bill Willmot, journeyed to Boston Thursday to attend the 10th Annual Convention of the Society of Technical Writers and Publishers.

During the three-day meet they submitted four pieces of LOC art into open competition, and a painting of Telstar by Graphics' artist Bruce Gaver won first place in its category. Some 200 entries were submitted.

Smith said they attended a number of panels, lectures and speeches by outstanding authorities in writing and publishing.

The convention is held annually to improve the writing state - of - the - art and to exchange useful information.

The recently-formed Cape Canaveral chapter of the Society of Technical Writers and Publishers, of which Hill, Smith and Willmot are members, was chartered at the convention.

He's A Year Younger

Harry W. Smith, Chief of LOC's Recruitment and Placement Branch, was given a surprise birthday party Friday by his fellow office workers. The shindig included chicken dinners and, of course, cake.

SPACE ALMANAC

A CHRONOLOGY OF EVENTS IN SPACE EXPLORATION AND RESEARCH.

Five Years Ago

May 18, 1958 — The first full-size tactical nose cone was recovered from the Atlantic Ocean 4½ hours after launching from Cape Canaveral atop a Jupiter missile.

Two Years Ago

May 25, 1961 — President Kennedy asked the Congress to provide funds to meet a national goal before the end of this decade of landing a man on the Moon and returning him safely to Earth.

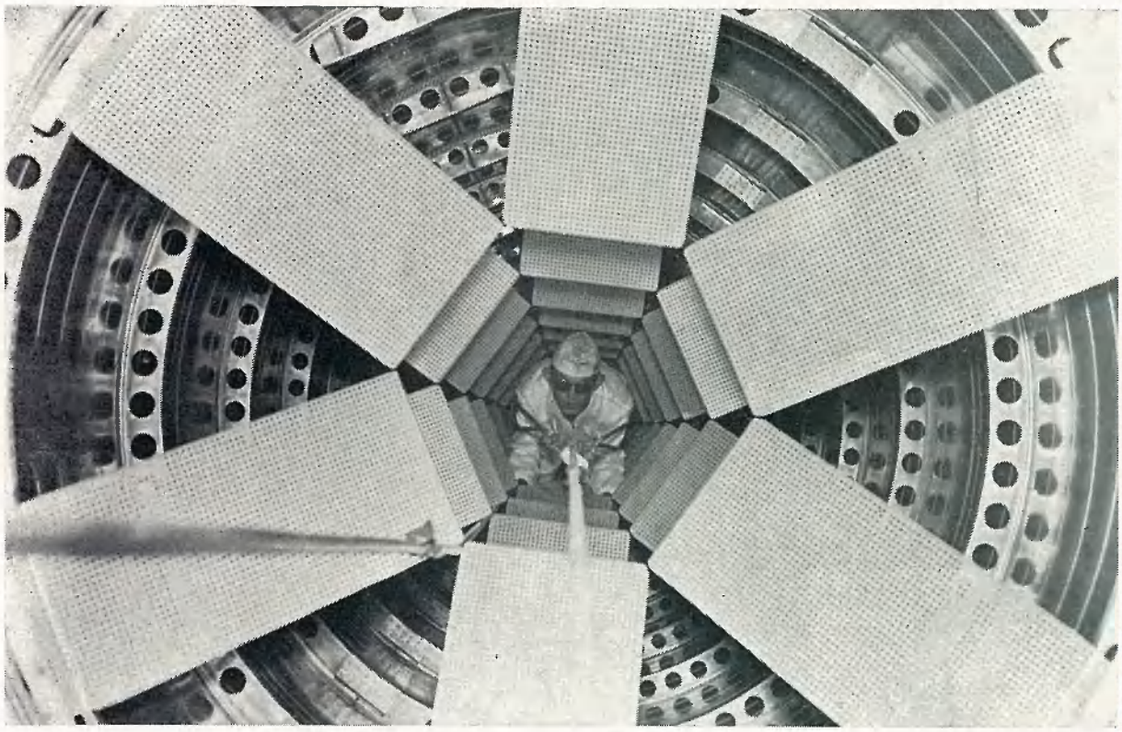
One Year Ago

May 22, 1962 — OSO 1 ceased transmitting data after 1,138 orbits, having produced for 77 days and provided more than 200 miles of scientific data tape.

May 24, 1962 — Astronaut Scott Carpenter completed three orbits of the Earth in a Mercury spacecraft.

65-Feet Down

They Fathom Tanks' Depths To Ready Saturn For Tests



SPACEFLIGHT MECHANIC Bill Hardin begins 65-foot descent into lox tank.

In a business where most efforts are directed to send man to great heights, Vehicle Propulsion personnel have been going in the opposite direction recently, to depths of 65 feet.

It all began when modifications were needed deep inside the five lox tanks on Saturn SA-5D at Complex 37.

Due to the intricacy of the work involved, it was necessary to lower mechanics into the 65-foot tanks.

Spaceflight mechanic A. E. Yarbrough and S. A. McDonald of Chrysler devised an ingenious rig using a winch and mounting brackets that would allow a speedy and safe descent into the tanks.

Three Rigs

So well conceived was their design that three such rigs were immediately set up to expedite operations.

Under the supervision of engineer Robert Newall and foreman Joe Lendle, mechanics were lowered into the tanks in two hour shifts. Refrigerated air was pumped inside while the work was going on.

Because lox tanks must maintain a surgical cleanliness, the mechanics wore lint free suits, boots, hats and gloves for their inside work, and all tools and hardware were lox-cleaned by the Valve Lab.

It was the first time tanks have ever been entered while in a vertical position.

Lendle commended the men for their extra efforts, which included working on Mother's Day, to get the tanks in shape to meet test deadlines.

Job Openings Exist At Various Levels

Job openings for engineers, mathematicians, physical scientists, contract negotiators, accountants, accounting technicians and accounting clerks now exist at LOC for qualified personnel.

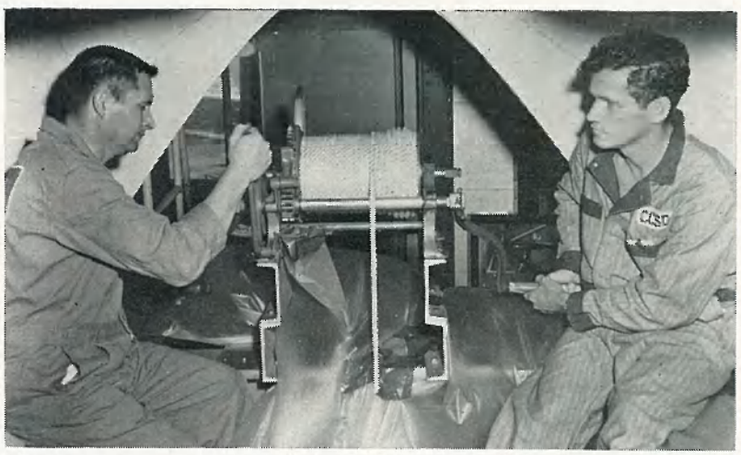
Grade levels include GS-7, 9, 11, 12, and 13.

LOC's Recruitment and Placement Branch reports from past experience that one of the best sources of good applicants has been referrals from those employees presently employed with LOC.

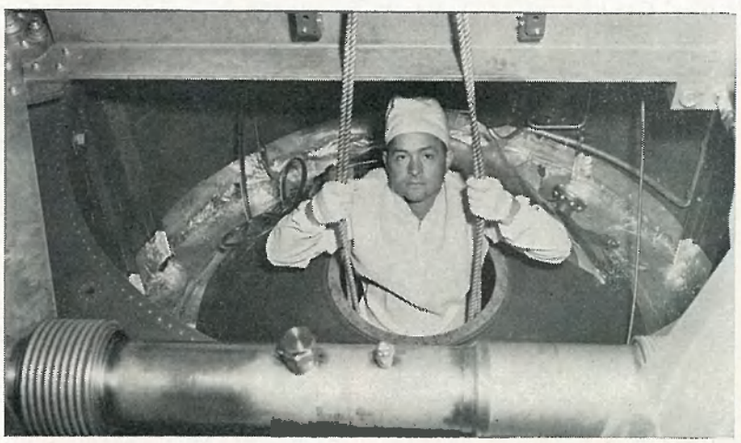
Interested persons qualified in the above areas should contact the Recruitment and Placement Branch, NASA Personnel Office, CAC Building, (phone SU 3-9404 or SU 3-7777), or file a standard form 57, application for Federal Employment.

Sizable Rings

Rings surrounding the planet Saturn are now believed to be 45,000 miles wide and only eight inches thick. They are made of dust, snow and/or ice particles.



RIG DESIGNERS A. E. Yarborough, left, and S. A. McDonald operate winch.



CHRYSLER EMPLOYEE Jerry Pike enters top of bulkhead for work inside tank.

News Photos by Ben Bundy

DEEP FREEZE

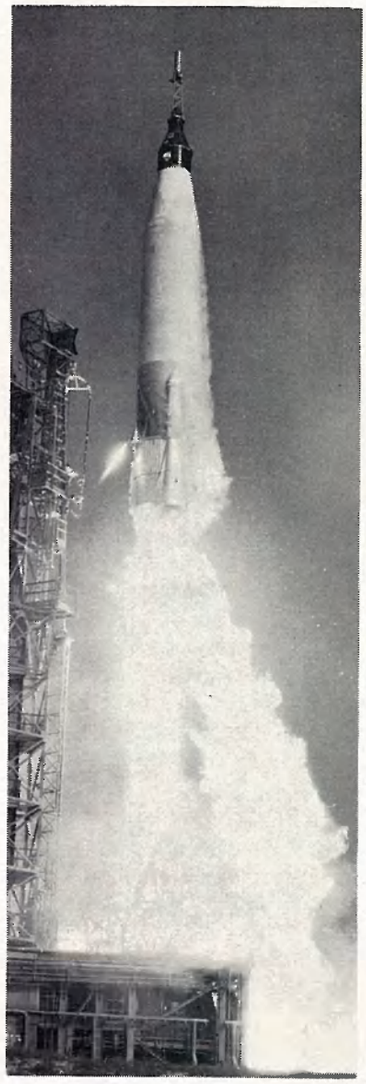
Astronauts of the future may use one of two possibilities to withstand the lengthy trips to far away planets:

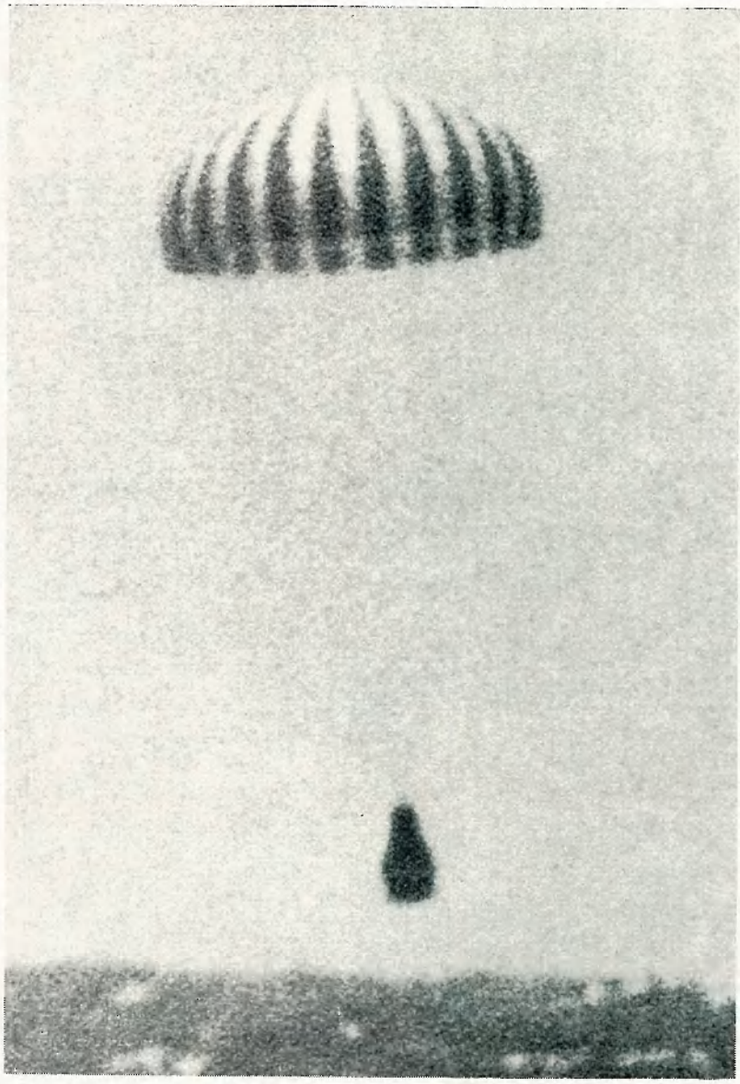
A hibernation needle may put them to sleep for a long period, employing a rotation procedure by crew members which would give each one a long rest.

As an alternative, a "deep freeze" method might be used. This would cool the astronauts down, and freeze them stiff, then thaw them out by electric voltage.

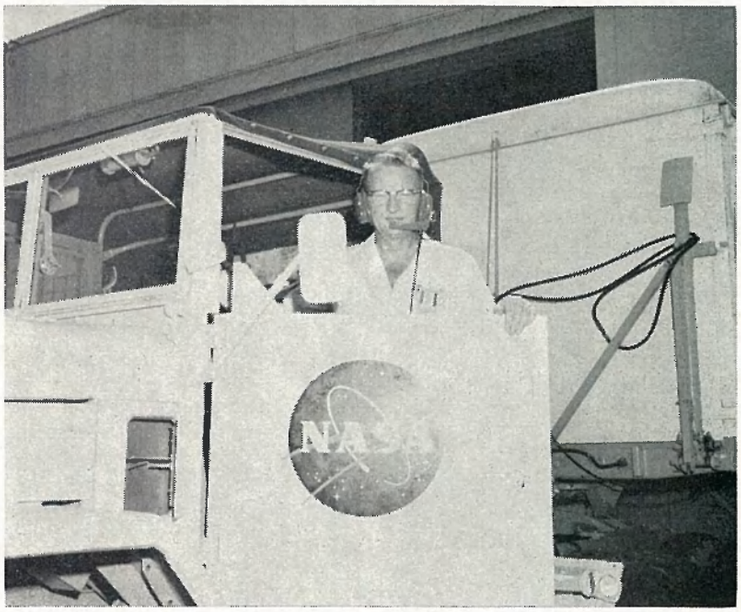
IT WAS A GREAT DAY FOR THE BIRDWATCHERS

. . . TO VIEW SCENES OF A SUCCESSFUL MISSION





Swift Space Flight Begins With 20 mph Van Ride



C. J. LaMar

Astronaut Gordon Cooper may have a love for souped-up sports cars, and he may have flown around the earth at 17,500 mph, but on the Cape his top speed from Hangar S to Complex 14 was a snail-paced 20 mph.

"There are several reasons for such a slow speed," says C. J. LaMar, driver of the transfer van that carried Cooper to the launch site.

"First, it's a pretty big van and with such a light load, it'd be a pretty rough ride if we got up any speed.

"Then, the roads aren't the smoothest in the world, and everyone except the astronaut stands up inside the van. We might throw them all around if we went any faster."

Five Gears

There are five forward gears on the huge Reo tractor that pulls the van, but LaMar uses only the first four. En-route, he relays to the van, via an intercom, when a curve or turn is approaching.

Employed by Management Services, Inc., under contract to NASA, LaMar drove his first truck in 1936. He has never had a chargeable accident.

Supervisor L. R. Whiteman says LaMar was picked for the job "because of his reliability and ability to carry out assignments."

He has driven either the prime or backup truck for all Mercury launches. He drove Ham and Enos to the pad, piloted the backup van (used in case of a breakdown) for astronauts Shepard, Grissom and Glenn, and chauffeured Carpenter, Schirra and Goddon Cooper.

16 Minutes

"It's a three and a half mile, winding route from Hangar S to the pad," LaMar says, "and it usually takes 16 minutes to make the run." (It took precisely 16 minutes to drive Cooper from Hangar S to Pad 14 on May 14th and 15th.)

Not once has LaMar had motor failure, a flat tire or any other trouble enroute. "The trips have been pretty smooth," he says, "although the astronauts sometimes kid me about giving them a rough ride."

Only once in all the drives has he had to "pull up." This came last Wednesday morning when he rubbed the side of a wall at Pad 14. He had only a three-inch clearance, however.

Between manned space flights, LaMar transports electronic vans and other heavy equipment.

How does he like his job?

"I think it's quite an honor," he says proudly. "I imagine a lot of truck drivers in the country would like to have my job."

His wife is proud too. She even saw him on TV the other day.

Rocket Components Wrapped In Miles Of Aluminum Foil

Marshall Space Flight Center technicians use some 47,000 feet of household type aluminum foil each month, but they're not squirreling away leftover space vehicle parts.

The foil—waterproof, easily visible and instantly shaped to fit the various contours of rocket components — serves pretty much the same purpose at the space rocket center as it does in the kitchen, except on a larger scale.

Technicians at the NASA center use enough foil each month to last a housewife a lifetime.

It provides protection for odd-shaped, exposed rocket components during assembly, checkout and movements before launch at Cape Canaveral.

No one seems to know the person who decided that foil was "the thing" to keep parts clean, but almost everyone in the shop feels there is "nothing else that does the job as well."

Throughout the hanger-type Saturn assembly building the shining metal can be spotted covering portions of engines, tubing, and almost anything else in the big rockets.

Aluminum foil is one of the cleanest mass produced products known.

One use for it is for sealing the ends of tubes, where any dirt, even a fingerprint, in one of the liquid oxygen tubes could cause flight problems. The tubes are chemically cleaned and immediately sealed with foil.

NASA BUYS F-104s FOR SPECIAL TESTS

Three F-104 jet aircraft have been purchased by NASA's Flight Research Center at Edwards, California.

A contract for $2,256 was awarded to the Lockheed-California Company of Burbank, California for the planes that will be added to the Center's complement of research and operational aircraft.

The new F-104's will be modified for use as test beds for future projects that will be carried out at this NASA Center. Flight Research Center engineers will outfit the aircraft with various kinds of equipment and instrumentation that will produce actual flight time data for many programs.

Capable of flight at Mach 2 (twice the speed of sound), an F-104 was flown to a peak altitude of 103,395 in a special test in 1959.

SOLAR PROBE PACT TO BE NEGOTIATED

NASA's Ames Research Center has selected three companies for negotiation of contracts to study a Solar Probe project which would greatly extend man's knowledge of the sun.

General Electric Company's Missile and Space Division, Philadelphia, Pennsylvania, Martin-Marietta of Baltimore, Maryland, and the Philco Corporation of Palo Alto, California were selected from sixteen companies submitting proposals.

Each contract will call for a four-months study to provide information in depth for the procurement of any future Solar Probe spacecraft, should the program become fully authorized.

Since the sun is the major source of energy in the solar system and since life is dependent upon this energy, scientists at Ames Research Center believe that a better understanding of the sun's processes and their effects on the earth is needed. They feel that such understanding can be attained from the Solar Probe missions which will be studied under these contracts.

Specific information regarding solar fields, particles, radiation, and other solar phenomena between the earth and the sun could be obtained by a Solar Probe.

The probe would reach a distance of three-tenths of an astronomical unit, or about 28 million miles from the sun. Such information could improve weather prediction and control and aid communications on earth.

JOHN DONOVAN, seated, of Community Development, checks out tracking equipment that local school youngsters used to track Astronaut Gordon Cooper's flight. State Superintendent of Schools Thomas D. Bailey told the students "I extend my heartiest commendation for your interest and dedication to such a worthwhile objective in your science education program. NASA has encouraged the teenagers' projects.

"Planetary" Atmospheres Under Study

NASA has awarded a contract of $1,374,818 for fabrication of a hypervelocity test device for the investigation of flight in planetary atmospheres to the Thiokol Chemical Corporation, Brigham City, Utah.

This device will be part of the hypervelocity free-flight facility now under construction at NASA's Ames Research Center, Moffett Field, Calif.

The wind tunnel structure, combined with a light gas gun, will help attain rational designs for manned satellites, vehicles returning from the moon and other planets, and possibly space vehicles for entering the atmosphere of other planets.

The facility is expected to reach test velocities of 50,000 feet per second, or over 34,000 miles per hour.

Such a test facility is needed to investigate vehicle recovery on earth after orbiting the moon or nearby planets such as Venus and Mars, or the landing of space vehicles on these planets. Solutions to a number of technical problems, some of which are presently not well understood, have been needed for some time.

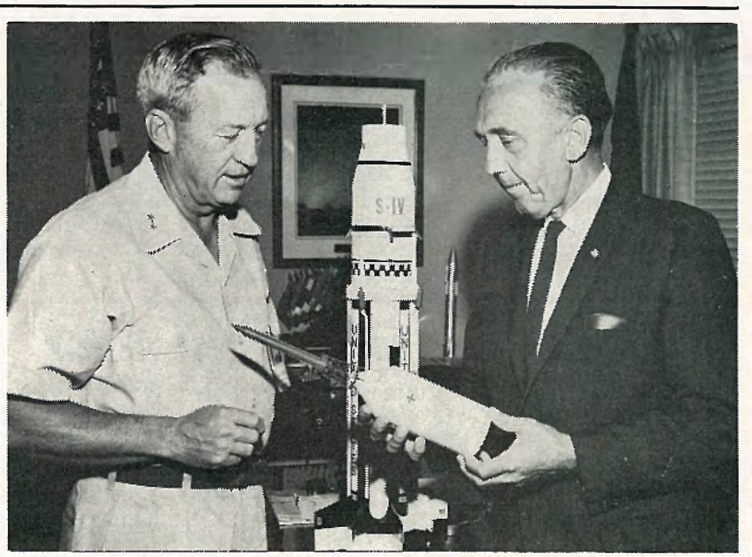
X-15 RESCUE CREW CITED FOR BRAVERY

Six men who risked their lives during rescue operations after an X-15 accident November 9, 1962, were honored Friday at NASA's Flight Research Center.

The NASA Medal for Exceptional Bravery was presented for the first time by Dr. Robert C. Seamans, Jr., NASA Associate Administrator.

Captain Paul J. Balfe, US AF helicopter pilot, John A. Gordon, NASA rocket technician, Airman Third Class Larry J. Hough, USAF physiological training specialist, Curtis C. Lyon, an USAF civilian firefighter crew chief, Technical Sergeant Charles L. Manes, USAF helicopter crew chief, and Captain Lynn B. Rowe, USAF flight surgeon, received the award.

The six medal recipients played key roles during the rescue operations at Mud Lake, Nevada, when an X-15 turned over during landing. The pilot, John B. McKay, received only minor injuries in the accident.



LOC DIRECTOR Dr. Kurt H. Debus presents Major General L. I. Davis, Commander of the Air Force Missile Test Cetner with a model of the Saturn I Rocket. The presentation was made in recognition of the excellent support given NASA by AFMTC.

NASA NEWCOMERS

LOC's Launch Support Equipment Engineering Division in Huntsville has added two new employees: They are John S. Kunkle, Launch Equipment Branch, and Joe Morris, Future Studies Branch.

Who Said That?

"Women have not been checked sufficiently as a group for anyone to say that their bodily structure can stand the same number of G's as men without permanent after effects."

Jacqueline Cochrane
Noted Aviatrix

COIFFURE COLORS STYMIE SECURITY

The best laid plans, the poet said . . . are sometimes thwarted by the dictates of current fashions.

Security people here report that the color photographs on the new combination badge and identifications cards are ideal for identification of the wearer — except when drastic changes occur in hair color.

"We've already heard of one case where the color has gone from brown to pink," one security man said ruefully.

However, they believe — hopefully — that other changes in the physical characteristics listed on the back of the card will be so gradual that harried guards will readily identify the wearer.

FIVE GIVEN MEDALS FOR CONTRIBUTIONS TO PROJECT MERCURY

Five other persons involved in the Project Mercury program were presented with medals during the Presidential ceremony in which Gordo Cooper was awarded NASA's Distinguished Service Medal.

"President Kennedy also pinned NASA medals for outstanding leadership on G. Merritt Preston, Kenneth Kleinknecht, Chris Kraft, Floyd L. Thompson, and Maj. Leighton I. Davis.

Preston, director of MSC's Preflight Operations Division at Cape Canaveral, was cited for his contribution in the "preparation and checkout of spacecraft for spaceflight missions of the United States in Project Mercury."

Kleinknecht, manager of the Mercury project office, was honored for "managing the development of the spacecraft for the extended spaceflight" missions of Mercury.

Kraft, flight director of the Mercury missions, was presented with his leadership medal for "planning and operational control" of the Project Mercury flights.

Thompson, director of Langley Research Center, accepted his medal for the "scientists and engineers who were responsible for the original conceptc and who comprised the nucleus of the development team" for the Project Mercury flights.

The leadership medal went to Gen. Davis, commander of the Air Force Missile Test Center, for "planning and implementing the support of the Department of Defense in the spaceflight mission of Project Mercury."

The citations accompanying the awards were read by NASA Administrator James E. Webb with the actual presentations made by President Kennedy.

CREDIT UNION MEETING

An organizational meeting of the NASA-MILA Federal Credit Union will be held tomorrow at 4 p.m. in the E & L building's conference room.

An interim board of directors and a credit committee will be elected. All interested personnel are invited to attend. The Credit Union's charter was approved May 8.

ANNE HULL, center, was honored at a going away party last week by her co-workers. Anne, secretary to G. Merritt Preston, Manager of MSC/AMR operations, is leaving to adopt a baby boy. Wishing her well are, left to right, Ruth Kaplet, Tillie Huggins, Jerry Yanatta, Anne, Barbara Schiller, Mary Driver, rear, Rose Lutz and Ethel Sarokon.

Interplanetary Hops 350 Years Away

If you've a hankering for commercial interplanetary space travel, you'll probably have to live 350 more years before it becomes commonplace.

That's the prediction of General Dynamics scientist Dr. Kraft A. Ehricke.

"About the year 2000," he said recently, mankind will send his explorers out into the solar system to visit the planets."

"In about the year of 2300, the bulk of the people of the earth will travel from planet to planet as they now travel from continent to continent."

He said the explosive population problem will "force all of us to find an answer by expanding into space."

Civil Service Film Available For Viewing

Act of Honor, a 28-minute 16-mm color motion picture film which traces the Federal civil service from 1883 to the present, has been produced by the Civil Service Commission and is available for showing.

Prints may be borrowed from offices of the Civil Service Commission.

Act of Honor, opens on the blackest moment in the history of Federal civilian employment — the assassination of President Garfield by a disappointed office seeker at the height of the "spoils system" —then flashes back to develop the dramatic story of our Government's administration from its beginning to the present.

Selected prints and photographs provided by the National Archives and the Library of Congress were filmed by use of the filmograph technique to capture historical action. Current scenes show present-day civil servants at work in a variety of assignments.

Reliability Contract

NASA has awarded the Chrysler Corporation $1,661,-353 to establish a reliability program for the Saturn I boosters being asembled at the Michoud Center.

The modification, an addition to the $215 million basic Chrysler Saturn I first stage contract awarded last July, was let by the Marshall Space Flight Center.

MA-9 Sidelights

(Continued from Page 1)

"Splash down." "We prefer landing," he told them.

Diet-conscious calorie counters might find a ride similar to Cooper's an easy way to take off poundage. The astronaut lost seven pounds in a day and a half in space.

The press conference room in Schrafft's Carriage House was lit up like a TV studio, which in effect, it was. Mercury Operations Director Walt Williams was sweating so profusely at the speaker's table that Alan Shepard sent him an extra handkerchief.

How calm can a fellow get? Cooper admitted he dozed for a bit during the countdown.

In fact, space flight may be the answer for insomniacs. According to Cooper, he slept more soundly than ever while orbiting.

The pre and post-parade traffic in Cocoa Beach was snarled worst than rush hour at the Cape, but no one seemed to mind.

You could tell the veteran parade watchers from the novices. The vets brought folding chairs and got out early enough to find shade.